

United States District Court

FOR THE
EASTERN DISTRICT OF TEXAS, BEAUMONT DIVISION

PLAINTIFFS
EXHIBIT

CIVIL ACTION FILE NO. 5402

CLAUDE J. TOMPLAIT

Plaintiff

v. e.

COMBUSTION ENGINEERING,
INC., ET AL

Defendant

SUMMONS IN CIVIL ACTION

SUMMONS

To the above named Defendant : EAGLE-PICHER INDUSTRIES, INC., service to be made upon its agent, C. T. Corporation System, Republic National Bank Building, Dallas, Texas.

You are hereby summoned and required to serve upon the Defendant.

Hon. Ward Stephenson

[SEAL]

plaintiff's attorney, whose address is:
Stephenson Building
Orange, Texas 77630

Service

By

an answer to the complaint which is herewith served upon you, within twenty days after service of this summons upon you, exclusive of the day of service. If you fail to do so, judgement by default will be taken against you for the relief demanded in the complaint.

JAMES R. COONEY

Virginia R. [Signature]
Deputy Clerk

Date: December 23, 1966

[Seal of Court]

I received this summons and served it together with the complaint herein as follows:

Note: This summons is issued pursuant to Rule 4 of the Federal Rules of Civil Procedure.

I hereby certify and return this on the

day of

10

RETURN ON SERVICE OF MAIL

LABORING DISTRICT OF TEXAS, BEAUMONT DIVISION

2403

Attorney for Plaintiff

SUMMONS IN CIVIL ACTION

Plaintiff
 v.
 Defendant

To the above named Defendant :
JAMES EARL RAY, known as "JACKSONVILLE," Dallas, Texas.
RAYMOND B. CANNON, INC., services to be made
RAYMOND B. CANNON, INC., services to be made

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[TV35]

Subscribed and sworn to before me, a
 plaintiff's attorney, at New York, N.Y.,
 this 19th day of

1940-1941

Deputy United States Marshal.

By

against you for the relief demanded in the complaint.
summons upon you, exclusive of the day of service. If you fail to do so, judgment by default will be taken
in answer to the complaint which is herewith served upon you, within

YES/NO .H. 2000

Debita Crisp

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 84

Date: December 23, 1966.

I hereby certify and return, that on the day of _____, 19____, I received this summons and served it together with the complaint herein as follows:

RETURN ON SERVICE OF THIS

EASTERN DISTRICT OF TEXAS, BEAUMONT DIVISION

CIVIL ACTION FILE NO. 2402

210MMU8

Attorney for Plaintiff
 PP-XX-1-20-66-618M-4006

SUMMONS IN CIVIL ACTION

Returnable not later than _____ days
after service.

Electric Street Light Plant
FOR THE
CITY OF
SAN FRANCISCO
CALIFORNIA

Not one party member was a United States Member of the Deputy.

ကဝေဟမဂ်ဇာဒိ ဟိန္ဒူ . မင်း

[TV26]

Subscribed and sworn to before me, a
 plaintiff's attorney, at New York, New York, this 19th day of

100-443887-100
 100-443887-100

Deputy United States Marshal.

By -

11. המחיר של המוצר יישאר זהה לזה של המוצר המקורי, ויש להבטיח את זהות המוצר המקורי.

against you for the relief demanded in the complaint.

YEMOYU .4 21/41

U.S. District Court

Deputy Chief

[אנא חזק]

Date: November 23, 1959

I received this summons and served it together with the complaint herein as follows:

Note:—This specimen is inserted in the 12th of the 1st series of the 1st group.

61

RETURN ON SERVICE OF WRIT

IN THE UNITED STATES DISTRICT COURT

FOR THE EASTERN DISTRICT OF TEXAS

BEAUMONT DIVISION

FILED
DEC 23 1966

M. James R. Cooney, Clerk, U. S. Court

By HAZEL E. STUDDARD
DEPUTY

CLAUDE J. TOMPLAIT

VS.

CIVIL ACTION NO. 5402

COMBUSTION ENGINEERING,
INC., ET AL

C O M P L A I N T

TO THE HONORABLE JUDGE OF SAID COURT:

COMES NOW CLAUDE J. TOMPLAIT, hereinafter called plaintiff, complaining of COMBUSTION ENGINEERING, INC., R. & I. REFRACTOR AND INSULATION CORPORATION, JOHNS-MANVILLE SALES CORPORATION, JOHNS-MANVILLE PRODUCTS CORPORATION, JOHNS-MANVILLE FIBER GLASS, INC., OWENS-CORING FIBER GLASS CORPORATION, PITTSBURGH CORNING CORPORATION, GUSTIN-BACON MANUFACTURING COMPANY, PITTSBURGH PLATE AND GLASS COMPANY, FIBREBOARD PAPER PRODUCTS CORPORATION and EAGLE-PICHER INDUSTRIES, INC., hereinafter called defendants, and for cause of action, plaintiff alleges:

1.

That the ground upon which the jurisdiction of this Court depends is diversity of citizenship of the parties hereto.

2.

That the amount in controversy herein exceeds the sum of Ten Thousand (\$10,000.00) Dollars, exclusive of interest and costs.

3.

That plaintiff is a resident of the State of Texas, and resides in Orange County, State of Texas.

A TRUE COPY I CERTIFY
JAMES P. COONEY, CLERK
U. S. DISTRICT COURT
EASTERN DISTRICT, TEXAS

By Hazel E. Studdard
Deputy

4.

That defendant COMBUSTION ENGINEERING, INC. is and during all of the times herein mentioned was a corporation duly organized, created and existing under and by virtue of the laws of the State of Delaware; that such defendant has an agent for service, to-wit, C. T. Corporation System, Republic National Bank Building, Dallas, Dallas County, Texas.

5.

That defendant, R. & I. REFRACTOR AND INSULATION CORPORATION is and during all of the times herein mentioned was a corporation duly organized, created and existing under and by virtue of the laws of some State, with an agent for service; however at this time, plaintiff does not know the name and address of such agent for service.

6.

That defendants JOHNS-MANVILLE SALES CORPORATION, JOHNS-MANVILLE PRODUCTS CORPORATION and JOHNS-MANVILLE FIBER GLASS, INC. were and during all of the times herein mentioned were corporations duly organized, created and existing under and by virtue of the laws of the State of Delaware; that all of such defendants have an agent for service, to-wit: Prentice-Hall Corporation System, Littlefield Building, Austin, Travis County, Texas. That plaintiff is suing all of these corporations and alleges that he is suing whichever one is responsible for the manufacture, production and distribution of the insulation materials hereinafter mentioned, but it is not known by plaintiff at this time which of said corporations is responsible.

7.

That defendant OWENS-CORING FIBER GLASS CORPORATION is and during all of the times herein mentioned was a corporation duly organized, created and existing under and by virtue of the laws of the State of Delaware; that such defendant has an agent for service, to-wit: C. T. Corporation System, Republic National Bank Building, Dallas, Dallas County, Texas.

8.

That defendant PITTSBURGH CORNING CORPORATION is and during all of the times herein mentioned was a corporation duly organized, created and existing under and by virtue of the laws of the State of Pennsylvania; that such defendant has an agent for service, to-wit, C. T. Corporation System, Republic National Bank Building, Dallas, Dallas County, Texas.

9.

That defendant GUSTIN-BACON MANUFACTURING COMPANY is and during all of the times herein mentioned was a corporation duly organized, created and existing under and by virtue of the laws of the State of Missouri; that such defendant has an agent for service, to-wit: Paul O. Craig, 5531 Armour Drive, Houston, Harris County, Texas.

10.

That defendant PITTSBURGH PLATE AND GLASS COMPANY is and during all of the times herein mentioned was a corporation duly organized, created and existing under and by virtue of the laws of the State of Pennsylvania; that such defendant has an agent for service, to-wit: C. T. Corporation System, Republic National Bank Building, Dallas, Dallas County, Texas.

11.

That defendant FIBREBOARD PAPER PRODUCTS CORPORATION is and during all of the times herein mentioned was a corporation duly organized, created and existing under and by virtue of the laws of the State of Delaware; that such defendant has an agent for service, to-wit: C. T. Corporation System, Republic National Bank Building, Dallas, Dallas County, Texas.

12.

That defendant EAGLE-PICHER INDUSTRIES, INC. is and during all of the times herein mentioned was a corporation duly organized, created and existing under and by virtue of the laws of the State of Ohio; that such defendant has an agent for service, to-wit: C. T. Corporation System, Republic National Bank Building, Dallas, Dallas County, Texas.

13.

That defendants during all times herein mentioned and for a long time prior thereto, have been and now are engaged in the manufacture of materials used for insulation, such materials containing fiber glass, rock wool, foam glass, magnesium insulation, mineral wool, calcium silicate and asbestos; that the products manufactured, compounded and prepared by defendants, acting through their servants, employees, representatives and agents were and are placed on the market to be purchased and used by the public.

14.

That the various types of insulation compounded, manufactured and placed in containers and sold by the

defendants contained chemicals and minerals and deleterious substances and matter which were highly poisonous, dangerous and harmful to human beings and to the health of man; that such materials were defective and were not suitable for the purposes for which they were intended. That each of the defendants knew, or should have known, that the chemical compounds and deleterious substances and matter in said insulation as compounded, prepared and manufactured by defendants were highly poisonous, dangerous and harmful to human beings and to the health of man and that such materials were defective and were not suitable for the purposes for which they were intended.

15.

That at all times herein mentioned, the plaintiff was employed as an insulator, and in the performance of his employment as an insulator he was required to handle large quantities of the said insulation, compounded, manufactured and prepared by the defendants.

16.

That during the period of time in which the plaintiff was employed as an insulator, in the course of his employment, due to the negligence and carelessness of the defendants, he was caused to come in contact with the insulation produced by defendants and its chemical compounds, deleterious substances and matter and directly in consequence of said negligence and carelessness of the defendants did sustain severe, permanent and disabling injuries as hereinafter set forth.

-5-

That at a plaintiff was employed as an insulator, and in the performance of his employment as an insulator he was

That the injuries and damages complained of herein were directly and proximately caused by the negligence and carelessness of the defendants in the following additional particulars:

(a) That the defendants knew, or in the exercise of ordinary or reasonable care, ought to have known that the insulation they so prepared and manufactured were deleterious, poisonous and highly harmful to plaintiff's body, lungs, respiratory system, skin and health, and that plaintiff would not know of such danger to his health, notwithstanding which defendants negligently failed to take any reasonable precautions or exercise reasonable care to warn plaintiff of the danger and harm to which he was exposed while handling the defendants' said insulation;

(b) That the defendants knew or, in the exercise of ordinary care, ought to have known that their said insulation was deleterious, poisonous and highly harmful to plaintiff's body, lungs, respiratory system, skin and health, and that the plaintiff would not know of such dangerous character, notwithstanding which defendants failed and omitted to provide plaintiff with the knowledge as to what would be reasonably safe and sufficient wearing apparel and proper protective equipment and appliances to protect him from being poisoned and disabled as he was by exposure to such deleterious and harmful compound substances and other material contained in said defendants' insulation.

(c) That the defendant knew or, in the exercise of ordinary or reasonable care, ought to have known that

their insulation was deleterious, poisonous and highly harmful to plaintiff's body, lungs, respiratory system, skin and health, notwithstanding which defendants negligently and carelessly packaged said insulation so that in the ordinary handling for installation thereof, this plaintiff would come in contact with such deleterious, poisonous and highly harmful compound substances and other material contained in said defendants' insulation.

(d) That the defendants knew or, in the exercise of ordinary or reasonable care, ought to have known that the insulation they produced contained deleterious, poisonous and highly harmful substances to human body, lungs, respiratory system, skin and health, notwithstanding which defendants negligently failed to take any reasonable precautions or exercise reasonable care by placing any warnings on their containers of said insulation to warn the handlers thereof of the dangers to health in coming in contact with said insulation.

(e) That the defendants knew or, in the exercise of ordinary or reasonable care, ought to have known that its insulation contained deleterious, poisonous and highly harmful substances to the human body, lungs, respiratory system, skin and health, notwithstanding which defendants negligently supplied to plaintiff containers of said insulation which were broken open and could not be transported without coming in contact with plaintiff's skin and body.

(f) That the defendants knew or, in the exercise of reasonable care, ought to have known that their insulation contained deleterious and highly harmful substances to

plaintiff's health, body, lungs, respiratory system, and skin, and defendants knew or, in the exercise of ordinary or reasonable care, should have known that plaintiff would not know the dangerous characteristics of their said insulation, notwithstanding which defendants negligently failed to take reasonable precautions or exercise reasonable care to warn the plaintiff of said danger and to instruct the plaintiff in the proper handling of their said insulation, or to take any reasonable precautions or exercise any reasonable care to protect plaintiff from harm and negligently failed to adopt and enforce a reasonably safe plan and method of handling and installing said insulation.

(g) That the defendants knew or, in the exercise of reasonable care, ought to have known that their insulation was defective and that such insulation was not suitable for the purposes for which it was intended.

18,

That as a direct and proximate cause of the aforesaid occurrences and circumstances and the negligence and carelessness of the defendants, plaintiff was permanently and severely injured; that he has sustained a very serious and permanent injury to his lungs and respiratory system, which has affected other parts of his body; that he suffers from shortness of breath, inability to breathe, clubbing of the fingers and toes; that it is necessary that plaintiff have available to him at all times a container containing oxygen in order that he may be able to breathe; that plaintiff has extreme difficulty with sleeping; that he tires easily; that he

that the condition was

was suitable for

that

constantly coughs; that he has suffered from an extreme loss of weight; that his future outlook is very dim; that he has sought the services of many physicians in an effort to cure or arrest the conditions from which he is suffering, but to no avail; that the plaintiff has lost his good health, all of which is permanently disabling to him.

his body: that he is

19.

That by reason of the negligence and carelessness of the defendants, and each of them, as hereinbefore alleged, and because of the harm and injury to his health and the resulting disability therefrom, plaintiff has suffered a total loss of wages and earnings and will continue to suffer such loss; that he was unable to continue in his employment as an insulator, an employment that he had been engaged in for many years, or to engage in any gainful activity at the present time, and his earning capacity has been greatly and forever permanently diminished and impaired.

20.

That in an effort to treat, relieve and heal himself of said injuries and to regain his health, the plaintiff was obliged to incur and will incur in the future an expense amounting to a considerable sum of money for medical and hospitalization care, expenses for medicines, supplies, and so forth, the exact amount of which plaintiff is unable to accurately estimate at this time.

21.

That by reason of the facts hereinbefore alleged, plaintiff has suffered and sustained at the hands of the

defendants, and each of them, general and special damages
in the sum of Five Hundred Thousand (\$500,000.00) Dollars.

WHEREFORE, plaintiff demands judgment against
the defendants, and each of them, in the sum of Five Hundred
Thousand (\$500,000.00) Dollars, together with his costs and
disbursements herein.

STEPHENSON, THOMPSON AND MORRIS

By LSI WARD STEPHENSON
Attorneys for Plaintiffs
Stephenson Building
Orange, Texas

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
BEAUMONT DIVISION

CLAUDE J. TOMPLAIT

VS.

CIVIL ACTION NO. 5402

COMBUSTION ENGINEERING,
INC., ET AL

PLAINTIFF'S FIRST AMENDED
COMPLAINT

TO THE HONORABLE JUDGE OF SAID COURT:

COMES NOW CLAUDE J. TOMPLAIT, hereinafter called plaintiff, complaining of COMBUSTION ENGINEERING, INC., R & I REFRACTOR AND INSULATION CORPORATION, JOHNS-MANVILLE SALES CORPORATION, JOHNS-MANVILLE PRODUCTS CORPORATION, JOHNS-MANVILLE FIBER GLASS, INC., OWENS-CORNING FIBER GLASS CORPORATION, PITTSBURGH CORNING CORPORATION, GUSTIN-BACON MANUFACTURING COMPANY, PITTSBURGH PLATE AND GLASS COMPANY, FIBREBOARD PAPER PRODUCTS CORPORATION and EAGLE-PICHER INDUSTRIES, INC., hereinafter called defendants, and for cause of action, plaintiff allege:

1.

That the ground upon which the jurisdiction of this Court depends is diversity of citizenship of the parties hereto.

2.

That the amount in controversy herein exceeds the sum of Ten Thousand (\$10,000.00) Dollars, exclusive of interest and costs.

3.

That plaintiff is a resident of the State of Texas, and resides in Orange County, State of Texas.

7.

That defendant OWENS-CORING FIBER GLASS CORPORATION is and during all of the times herein mentioned was a corporation duly organized, created and existing under and by virtue of the laws of the State of Delaware; that such defendant has an agent for service, to-wit: C. T. Corporation System, Republic National Bank Building, Dallas, Dallas County, Texas.

8.

That defendant PITTSBURGH CORNING CORPORATION is and during all of the times herein mentioned was a corporation duly organized, created and existing under and by virtue of the laws of the State of Pennsylvania; that such defendant has an agent for service, to-wit, C. T. Corporation System, Republic National Bank Building, Dallas, Dallas County, Texas.

9.

That defendant GUSTIN-BACON MANUFACTURING COMPANY is and during all of the times herein mentioned was a corporation duly organized, created and existing under and by virtue of the laws of the State of Missouri; that such defendant has an agent for service, to-wit: Paul O. Craig, 5531 Armour Drive, Houston, Harris County, Texas.

10.

That defendant PITTSBURGH PLATE AND GLASS COMPANY is and during all of the times herein mentioned was a corporation duly organized, created and existing under and by virtue of the laws of the State of Pennsylvania; that such defendant has an agent for service, to-wit, C. T. Corporation System, Republic National Bank Building, Dallas, Dallas County, Texas.

4.

That defendant COMBUSTION ENGINEERING, INC. is and during all of the times herein mentioned was a corporation duly organized, created and existing under and by virtue of the laws of the State of Delaware; that such defendant has an agent for service, to-wit, C. T. Corporation System, Republic National Bank Building, Dallas, Dallas County, Texas.

5.

That defendant, R & I REFRACTOR AND INSULATION CORPORATION is and during all of the times herein mentioned was a corporation duly organized, created and existing under and by virtue of the laws of some State, with an agent for service; however, at this time, plaintiff does not know the name and address of such agent for service.

6.

That defendants JOHNS-MANVILLE SALES CORPORATION, JOHNS-MANVILLE PRODUCTS CORPORATION AND JOHNS-MANVILLE FIBER GLASS, INC. were and during all of the times herein mentioned were corporations duly organized, created and existing under and by virtue of the laws of the State of Delaware; that all of such defendants have an agent for service, to-wit: Prentice-Hall Corporation System, Littlefield Building, Austin, Travis County, Texas. That plaintiff is suing all of these corporations and alleges that he is suing whichever one is responsible for the manufacture, production and distribution of the insulation materials hereinafter mentioned, but it is not known by plaintiff at this time which of said corporations is responsible.

11.

That defendant FIBREBOARD PAPER PRODUCTS CORPORATION is and during all of the times herein mentioned was a corporation duly organized, created and existing under and by virtue of the laws of the State of Delaware; that such defendant has an agent for service, to-wit, C. T. Corporation System, Republic National Bank Building, Dallas, Dallas County, Texas.

12.

That defendant EAGLE-PICHER INDUSTRIES, INC. is and during all of the times herein mentioned was a corporation duly organized, created and existing under and by virtue of the laws of the State of Ohio; that such defendant has an agent for service, to-wit, C. T. Corporation System, Republic National Bank Building, Dallas, Dallas County, Texas.

13.

That defendants during all times herein mentioned and for a long time prior thereto, have been and now are engaged in the manufacture of materials used for insulation, such materials containing fiber glass, rock wool, foam glass, magnesium insulation, mineral wool, calcium silicate and asbestos; that the products manufactured, compounded and prepared by defendants, acting through their servants, employees, representatives and agents were and are placed on the market to be purchased and used by the public.

14.

That the various types of insulation compounded, manufactured and placed in containers and sold by the

defendants contained chemicals and minerals and deleterious substances and matter which were highly poisonous, dangerous and harmful to human beings and to the health of man; that such materials were defective and were not suitable for the purposes for which they were intended. That each of the defendants knew, or should have known, that the chemical compounds and deleterious substances and matter in said insulation as compounded, prepared and manufactured by defendants were highly poisonous, dangerous and harmful to human beings and to the health of man, and that such materials were defective and were not suitable for the purposes for which they were intended.

15.

The plaintiff says that in the year 1959, the exact dates being unknown, he was employed by B & B Engineering and Supply Company at the DuPont Plant in Orange, Texas, and that in the course of his employment as an insulator, he was required to come in contact with the following materials: Foamlas, magnesium and fireproofing.

*Purchase & supply
Mg.*

16.

The plaintiff says that in the year 1959, for approximately nine to ten months, he was employed by Brooks-Fisher Insulating Company at the Gallitan Power House in Gallitan, Tennessee, and that in the course of his employment as an insulator, he was required to come in contact with the following materials: Asbestos and magnesium.

See asbestos & magnesium

17.

The plaintiff says that in the year 1960, for

approximately two months, he was employed by The Fluor Corporation, Ltd. at Kaplan, Louisiana on the Cow Island Job, and that in the course of his employment as an insulator, he was required to come in contact with magnesium.

18.

The plaintiff says that in the year 1960, the exact dates being unknown, he was employed by B & B Engineering & Supply Company, Inc. at the DuPont Plant in Orange, Texas, and that in the course of his employment as an insulator, he was required to come in contact with foanglas^X, magnesium and fireproofing.

19.

The plaintiff says that in the year 1960, the exact dates being unknown, he was employed by Armstrong Contracting and Supply Corporation at the Firestone Plant in Orange, Texas, and that in the course of his employment as an insulator, he was required to come in contact with magnesium.

20.

The plaintiff says that in the year 1961, the exact dates being unknown but being for approximately nine months, he was employed by Armstrong Contracting and Supply Corporation at the Firestone Plant in Orange, Texas, and that in the course of his employment as an insulator, he was required to come in contact with magnesium and Careytemp.^X

21.

The plaintiff says that in the year 1961, from September, 1961, to January, 1962, he was employed by The Aber Company, Inc., at the Gulf States Power House, in Bridge

City, Texas, and that in the course of his employment as an insulator, he was required to come in contact with the following materials: Kaytherm (calcium silicate); Aber 2 to 3 (cement); Sealfas: 3149 (mastic); Aluminum ells (mastic); Foamglas (foamed silicate); aluminum rolls (foamed silicate); Overkote (asphalt emulsion); Unibestos (asbestos fiber); Climaseal (mastic); Steel bands (mastic); and Aluminum seals (mastic).

22.

The plaintiff says that from March, 1962, to May, 1962, he was employed by The Aber Company, Inc., at the Gulf Oil Refinery, in Port Arthur, Texas, and that in the course of his employment as an insulator, he was required to come in contact with the following materials: Kaytherm (calcium silicate); Aber 2 to 3 (cement); Sealfas 3149 (mastic); Aluminum ells (mastic); Foamglas (foamed silicate); Aluminum rolls (foamed silicate); Overkote (asphalt emulsion); Unibestos (asbestos fiber); Climaseal (mastic); Steel bands (mastic); and Aluminum seals (mastic).

23.

The plaintiff says that during the year 1961 he worked for Sabine Insulation Company, Inc., at the Firestone Plant in Orange, Texas, and at Livingston Shipbuilding Company in Orange, Texas, and that in the course of his employment as an insulator, he was required to come in contact with the following materials: Calcium silicate, mineral wool insulating cement and aluminum jacketing.

24.

The plaintiff says that during the year 1962, he worked for Armstrong Contracting & Supply Corporation, the exact dates being unknown to him, at the Firestone Plant in

Orange, Texas, and that in the course of his employment as an insulator, he was required to come in contact with magnesium.

25.

The plaintiff says that during the year 1962, the exact dates being unknown to him, he worked for Johns-Manville Sales Corporation at the Bridge City Power House, in Bridge City, Texas, and that in the course of his employment as an insulator, he was required to come in contact with the following materials: Kaytherm (calcium silicate); Aber 2 to 3 (cement); Sealfas 3149 (mastic); Aluminum ells (mastic); Foamglas (foamed silicate); Aluminum Rolls (foamed silicate); Overkote (asphalt emulsion); Unibestos (asbestos fiber); Climaseal (mastic); Steel bands (mastic); and Aluminum seals (mastic).

26.

The plaintiff says that in the year 1962, from about June 11th to June 15th, 1962, he was employed by B & B Engineering & Supply Company, at the Big Three Welding Plant in Orange, Texas, and that in the course of his employment as an insulator, he was required to come in contact with the following materials: Foamglas, Careytemp, Thermoglas and Rock wool.

27.

The plaintiff says that from November 30, 1962, to January 18, 1963, he was employed by The Aber Company at the Gulf States Power House in Bridge City, Texas, and that in the course of his employment as an insulator, he was required to come in contact with the following materials: Kaytherm (calcium silicate); Aber 2 to 3 (cement); Sealfas 3149 (mastic); Aluminum ells (mastic); Foamglas (foamed

silicate); Aluminum rolls (foamed silicate); Overkote (asphalt emulsion); Unibestos (asbestos fiber); Climaseal (mastic); Steel bands (mastic); and Aluminum seals (mastic).

28.

The plaintiff says that in the year 1963, the exact date being unknown, he was employed by Sabine Insulation Company, Inc., at the Firestone Plant in Orange and Livingston Shipbuilding Company in Orange, Texas, and that in the course of his employment as an insulator, he was required to come in contact with the following materials: Calcium silicate, mineral wool insulating cement, aluminum jacketing, and fiberglass.

29.

The plaintiff says that in the year 1963, he was employed by B & B Engineering Company, at the DuPont Plant in Orange, Texas, the exact date being unknown to him, and that in the course of his employment as an insulator, he was required to come in contact with the following material: Careytamp.

30.

The plaintiff says that in July and August, 1963, plaintiff was employed by Insulation Engineers, Inc., at some refinery in Pascagoula, Mississippi (the exact name being unknown to plaintiff), and that in the course of his employment as an insulator, he was required to come in contact with the following materials: Foamlas and magnesium.

31.

The plaintiff says that in the year 1963, he was employed by Triangle Insulation Company at the Houston Chemical Plant, in Beaumont, Texas, and that in the course

of his employment as an insulator, he was required to come in contact with 85% magnesium.

32.

Plaintiff says that during the month of January, 1964, he was employed by B & B Engineering & Supply Company at the Big Three Welding Company plant in Orange, Texas, and that in the course of his employment, he was required to come in contact with Foanglas.

33.

The plaintiff says that in the year 1964, he was employed by Triangle Insulation Company at the Houston Chemical Plant, in Beaumont, Texas, and that in the course of his employment as an insulator, he was required to come in contact with 85% magnesium.

34.

The plaintiff says that during the year 1964, he was employed by Industrial Insulation, Inc. at the Jefferson Chemical Plant, in Port Neches, Texas, and that in the course of his employment, he was required to come in contact with asbestos insulating material, fiberglass and magnesium; and he also was employed by Industrial Insulation, Inc. at the Atlantic Refinery, in Port Arthur, Texas, and that in the course of his employment, he was required to come in contact with magnesium.

35.

The plaintiff says that during the year 1964, he was employed by Sabine Insulation Company, Inc. at the Firestone Plant in Orange, Texas, and Livingston Shipbuilding Company, in Orange, Texas, and that in the course of his employment, he was required to come in contact with calcium silicate, mineral wool insulating cement, aluminum jacketing

and fiberglass.

36.

The plaintiff says that during the year 1964, he was also employed by Johns-Manville Sales Corporation at the Gulf States Power Plant, Bridge City, Texas, and that in the course of his employment, he was required to come in contact with calcium silicate, rock wool and 85% magnesium.

37.

That at all times herein mentioned, the plaintiff was employed as an insulator, and that in the performance of his employment as an insulator, he was required to handle large quantities of the said insulation hereinabove mentioned, compounded, manufactured and prepared by the defendants.

38.

That during the period of time in which the plaintiff was employed as an insulator, in the course of his employment, due to the negligence and carelessness of the defendants, he was caused to come in contact with the insulation produced by defendants and its chemical compounds, deleterious substances and matter and directly in consequence of said negligence and carelessness of the defendants did sustain severe, permanent and disabling injuries as hereinafter set forth.

39.

That the injuries and damages complained of herein were directly and proximately caused by the negligence and carelessness of the defendants in the following additional particulars:

(a) That the defendants knew, or in the exercise of ordinary or reasonable care, ought to have known that the

insulation they so prepared and manufactured were deleterious, poisonous and highly harmful to plaintiff's body, lungs, respiratory system, skin and health, and that plaintiff would not know of such danger to his health, notwithstanding which defendants negligently failed to take any reasonable precautions or exercise reasonable care to warn plaintiff of the danger and harm to which he was exposed while handling the defendants' said insulation;

(b) That the defendants knew or, in the exercise of ordinary care, ought to have known that their said insulation was deleterious, poisonous and highly harmful to plaintiff's body, lungs, respiratory system, skin and health, and that the plaintiff would not know of such dangerous character, notwithstanding which defendants failed and omitted to provide plaintiff with the knowledge as to what would be reasonably safe and sufficient wearing apparel and proper protective equipment and appliances to protect him from being poisoned and disabled as he was by exposure to such deleterious and harmful compound substances and other material contained in said defendants' insulation.

(c) That the defendant knew or, in the exercise of ordinary or reasonable care, ought to have known that their insulation was deleterious, poisonous and highly harmful to plaintiff's body, lungs, respiratory system, skin and health, notwithstanding which defendants negligently and carelessly packaged said insulation so that in the ordinary handling for installation thereof, this plaintiff would come in contact with such deleterious, poisonous and highly harmful compound substances and other material contained in said defendants' insulation.

(d) That the defendants knew or, in the exercise

of ordinary or reasonable care, ought to have known that the insulation they produced contained deleterious, poisonous and highly harmful substances to human body, lungs, respiratory system, skin and health, notwithstanding which defendants negligently failed to take any reasonable precautions or exercise reasonable care by placing any warnings on their containers of said insulation to warn the handlers thereof of the dangers to health in coming in contact with said insulation.

(e) That the defendants knew or, in the exercise of ordinary or reasonable care, ought to have known that its insulation contained deleterious, poisonous and highly harmful substances to the human body, lungs, respiratory system, skin and health, notwithstanding which defendants negligently supplied to plaintiff containers of said insulation which were broken open and could not be transported without coming in contact with plaintiff's skin and body.

(f) That the defendants knew or, in the exercise of reasonable care, ought to have known that their insulation contained deleterious and highly harmful substances to plaintiff's health, body, lungs, respiratory system, and skin, and defendants knew or, in the exercise of ordinary or reasonable care, should have known that plaintiff would not know the dangerous characteristics of their said insulation, notwithstanding which defendants negligently failed to take reasonable precautions or exercise reasonable care to warn the plaintiff of said danger and to instruct the plaintiff in the proper handling of their said insulation, or to take any reasonable precautions or exercise any reasonable care to protect plaintiff from harm and negligently failed to adopt and enforce a reasonably safe

plan and method of handling and installing said insulation.

(g) That the defendants knew or, in the exercise of reasonable care, ought to have known that their insulation was defective and that such insulation was not suitable for the purposes for which it was intended.

40.

That as a direct and proximate cause of the aforesaid occurrences and circumstances and the negligence and carelessness of the defendants, plaintiff was permanently and severely injured; that he has sustained a very serious and permanent injury to his lungs and respiratory system, which has affected other parts of his body; that he suffers from shortness of breath, inability to breathe, clubbing of the fingers and toes; that it is necessary that plaintiff have available to him at all times a container containing oxygen in order that he may be able to breathe; that plaintiff has extreme difficulty with sleeping; that he tires easily; that he constantly coughs; that he has suffered from an extreme loss of weight; that his future outlook is very dim; that he has sought the services of many physicians in an effort to cure or arrest the condition from which he is suffering, but to no avail; that the plaintiff has lost his good health, all of which is permanently disabling to him.

41.

That by reason of the negligence and carelessness of the defendants, and each of them, as hereinbefore alleged, and because of the harm and injury to his health and the resulting disability therefrom, plaintiff has suffered a total loss of wages and earnings and will continue to suffer such loss; that he was unable to continue in his

employment as an insulator, an employment that he had been engaged in for many years, or to engage in any gainful activity at the present time, and his earning capacity has been greatly and forever permanently diminished and impaired.

42.

That in an effort to treat, relieve and heal himself of said injuries and to regain his health, the plaintiff was obliged to incur and will incur in the future an expense amounting to a considerable sum of money for medical and hospitalization care; expenses for medicines, supplies, and so forth, the exact amount of which plaintiff is unable to accurately estimate at this time.

43.

That by reason of the facts hereinbefore alleged, plaintiff has suffered and sustained at the hands of the defendants, and each of them, general and special damages in the sum of Five Hundred Thousand (\$500,000.00) Dollars.

WHEREFORE, plaintiff demands judgment against the defendants, and each of them, in the sum of Five Hundred Thousand (\$500,000.00) Dollars, together with its costs and disbursements herein.

STEPHENSON, THOMPSON AND MORRIS

By _____
Attorneys for Plaintiff
Stephenson Building
Orange, Texas

CERTIFICATE

A copy of the foregoing Amended Complaint has been forwarded to the following attorneys of record:

Mr. Ben L. Reynolds
Royston, Rayzor & Cook
Attorneys at Law
877 San Jacinto Building
Houston, Texas 77002

Attorney for Defendant EAGLE-PICHER
INDUSTRIES, INC.

Mr. John D. Rienstra
Attorney at Law
707 Beaumont Savings Building
Beaumont, Texas 77701

Attorney for Defendant OWENS-CORNING
FIBER GLASS CORPORATION

Mr. John D. Tucker
Attorney at Law
Orgain, Bell & Tucker
Beaumont Savings Building
Beaumont, Texas 77701

Attorney for Defendant GUSTIN-BACON
MANUFACTURING COMPANY

Mr. George A. Weller
Attorney at Law
P. O. Box 350
Beaumont, Texas 77701

Attorney for Defendant FIBERBOARD PAPER
PRODUCTS CORPORATION

Mr. Charles S. Pipkin
Attorney at Law
P. O. Box 1632
Beaumont, Texas 77704

Attorney for Defendants COMBUSTION ENGINEERING,
INC. and REFRACTORY & INSULATION CORPORATION

Mr. George E. Duncan
Attorney at Law
Beaumont Savings Building
Beaumont, Texas 77701

Attorney for Defendants PITTSBURGH PLATE GLASS
COMPANY and PITTSBURGH CORNING CORPORATION

Mr. Gordon R. Pate
Attorney at Law
1119 Beaumont Savings Building
Beaumont, Texas

Attorney for Defendants JOHNS-MANVILLE SALES
CORPORATION, JOHNS-MANVILLE PRODUCTS CORPORATION,
and JOHNS-MANVILLE FIBER GLASS, INC.

Attorney for Plaintiff



IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
BEAUMONT DIVISION

CLAUDE J. TOMPLAIT :

VS. : CIVIL ACTION NO. 5402

COMBUSTION ENGINEERING, :
INC., ET AL :

FILED

M. NOV 3 - 1967 19
James B. Cooney, Clerk, U.S. Court

INTERROGATORIES PROPOUNDED
TO DEFENDANTS

By Hazel E. Studard
DEPUTY

TO: COMBUSTION ENGINEERING, INC.,
R & I REFRACTOR AND INSULATION CORPORATION,
JOHNS-MANVILLE SALES CORPORATION,
JOHNS-MANVILLE PRODUCTS CORPORATION,
JOHNS-MANVILLE FIBER GLASS, INC.,
OWENS-CORING FIBER GLASS CORPORATION,
PITTSBURGH CORNING CORPORATION,
GUSTIN-BACON MANUFACTURING COMPANY,
PITTSBURGH PLATE AND GLASS COMPANY,
FIBREBOARD PAPER PRODUCTS CORPORATION,
EAGLE-PICHER INDUSTRIES, INC.,

Defendants:

CLAUDE J. TOMPLAIT, plaintiff, hereby serves
upon the above named defendants the following written
interrogatories to be answered ful'y and fairly in
writing under oath, which shall be signed by the
person or persons making such answers, a copy of
such answers to be served upon plaintiff's attorney
within fifteen (15) days after service herein, in
accordance with Rule 33 of the Federal Rules of Civil
Procedure:

INTERROGATORY NO. 1: Give the names and trade names
of all types of insulating
materials manufactured by you,
giving the dates that you began
to manufacture such materials,
starting in 1950, a description
of the materials and what they
contain.

A TRUE COPY I CERTIFY
MURRAY L. HARRIS, CLERK
J. S. DISTRICT COURT
EASTERN DISTRICT, TEXAS

By: Judy L. Gaddis

INTERROGATORY NO. 2: Did you ever at any time give warnings to workers of the dangerous nature of such materials? If so, describe your warnings and to whom such warnings were given.

INTERROGATORY NO. 3: What studies have you made to determine the effect of your products on the lungs and physical condition of persons employed as insulators and asbestos workers who use the materials?

INTERROGATORY NO. 4: Who made such studies, when were they made, and attach copies of the reports of the studies.

INTERROGATORY NO. 5: Did you package and sell any one of the products named in plaintiff's first amended original complaint, and if so, how were the products sold, how were the products packaged, and were these products universally used throughout the United States?

INTERROGATORY NO. 6: If these products were used primarily in any specific location or area, please explain where such products were primarily used.

INTERROGATORY NO. 7: Do you not recognize that prolonged use of the insulating materials manufactured by you can cause or contribute to cause various occupational diseases including asbestosis, silicosis and dermatitis?

INTERROGATORY NO. 8: Did you manufacture or sell any insulating products which were used by any of the named contractors or employers: B & B Engineering and Supply Company, Brooks-Fisher Insulating Company, Fluor Corporation, Ltd., Armstrong Contracting and Supply Corporation, The Aber Company, Inc., Sabine Insulating Company, Inc., Johns-Manville Sales Corporation, Insulation Engineers, Inc., Triangle Insulation Company, Industrial Insulation, Inc., between the years 1950 to date?

STEPHENSON, THOMPSON AND MORRIS

By Wad Stephen
Attorneys for Plaintiff
Stephenson Building
Orange, Texas

CERTIFICATE OF SERVICE BY MAIL

A copy of the foregoing Interrogatories has been forwarded to the following attorneys of record on this the 2nd day of November, 1967, by Certified Mail, Return Receipt Requested:

Mr. Ben L. Reynolds
Royston, Rayzor and Cook
Attorneys at Law
877 San Jacinto Building
Houston, Texas 77002

Attorney for Defendant EAGLE-PICHER
INDUSTRIES, INC.

Mr. John D. Rienstra
Attorney at Law
707 Beaumont Savings Building
Beaumont, Texas 77701

Attorney for Defendant OWENS-CORNING
FIBER GLASS CORPORATION

Mr. John D. Tucker
Attorney at Law
Orgain, Bell and Tucker
Beaumont Savings Building
Beaumont, Texas 77701

Attorney for Defendant GUSTIN-BACON
MANUFACTURING COMPANY

Mr. George A. Weller
Attorney at Law
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Beaumont, Texas 77701

Attorney for Defendant FIBERBOARD PAPER
PRODUCTS CORPORATION

Mr. Charles S. Pipkin
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Beaumont, Texas 77704

Attorney for Defendants COMBUSTION
ENGINEERING, INC. and REFRACTORY
& INSULATION CORPORATION

Mr. George E. Duncan
Attorney at Law
Beaumont Savings Building
Beaumont, Texas 77701

Attorney for Defendants PITTSBURGH PLATE
GLASS COMPANY and PITTSBURGH CORNING
CORPORATION

Mr. Gordon R. Pate
Attorney at Law
1119 Beaumont Savings Building
Beaumont, Texas

Attorney for Defendants JOHNS-MANVILLE
SALES CORPORATION, JOHNS-MANVILLE
PRODUCTS CORPORATION, and JOHNS-MANVILLE
FIBER GLASS, INC.



Attorney for
Plaintiff

defendants, and each of them, general and special damages
in the sum of Five Hundred Thousand (\$500,000.00) Dollars.

WHEREFORE, plaintiff demands judgment against
the defendants, and each of them, in the sum of Five Hundred
Thousand (\$500,000.00) Dollars, together with his costs and
disbursements herein.

STEPHENSON, THOMPSON AND MORRIS

By LEI W. STEPHENSON
Attorneys for Plaintiff
Stephenson Building
Orange, Texas

IN THE COURT OF COMMON PLEAS
CUYAHOGA COUNTY, OHIO



ANTHONY MARIO GRECO, et al., :

Plaintiffs, :

vs. :

A-BEST PRODUCTS COMPANY, et al., :

Defendants. :

Case Nos. 323629-323678
(Hanna, J.)

IN RE: ALL BARON & BUDD
ASBESTOS CASES

**DEFENDANT, COMBUSTION ENGINEERING, INC.'S RESPONSES TO
MASTER SET OF INTERROGATORIES
CUYAHOGA COUNTY, OHIO CASES**

PRELIMINARY STATEMENT AND GENERAL OBJECTIONS

Defendant Combustion Engineering, Inc.'s responses to these Interrogatories each incorporate this Preliminary Statement and these General Objections.

Combustion Engineering, Inc. began manufacturing asbestos containing insulation products on June 5, 1963 and discontinued the manufacture of all such products on August 30, 1972. As a result, its responses to these Interrogatories respond within that time frame. To the extent that these Interrogatories call for information outside of that time frame, this Defendant objects on the grounds that they are overly broad, unduly burdensome, seek information neither relevant nor material to the subject matter of this case, and are not reasonably calculated to lead to the discovery of admissible evidence.

Combustion Engineering, Inc. makes the following additional General Objections to each of these Interrogatories:

1. This Defendant objects to these Interrogatories to the extent that they purport to require it to "identify" documents on the grounds that such requests to "identify" are overly broad, unduly burdensome and oppressive.

2. This Defendant objects to these Interrogatories to the extent that information subject to the attorney/client privilege and/or which constitutes privileged attorney work product is sought.

3. This Defendant objects to the definitions provided with these Interrogatories as being overly broad, unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence. This Defendant asserts that all terms should be given their usual and ordinary interpretation.

4. This Defendant objects to those Interrogatories that request information regarding the ultimate sales or distribution of products manufactured by this Defendant, which sales did not occur in Ohio and that did not directly affect the sale or distribution of products in Ohio, and which may not lead to the discovery of admissible evidence regarding product shipments that may have been utilized at job sites where Plaintiffs are claiming exposure, because information sought regarding other sales or distribution of Combustion Engineering, Inc.'s products is irrelevant and immaterial and not reasonably calculated to lead to the discovery of admissible evidence.

1. For each Interrogatory below, please state the name and last known address of each person answering it, including whether he/she is employed by Defendant

and if employed by Defendant include job title, length of time employed by Defendant and a year by year list of all other positions, titles, or jobs held when working for Defendant.

ANSWER:

In preparing these responses, reference has been made to responses prepared in the course of litigation pending over many years. These responses were based on conversations and document reviews occurring throughout this period. It is impossible to relate the preparation of any particular response to any particular person or document. This Defendant further states that these interrogatories are being answered on behalf of this Defendant by M. John Hornik of Combustion Engineering, Inc. based on information and belief. Mr. Hornik was employed by Combustion Engineering, Inc. from 1941 to 1985 in the contract administration area.

1.1 Please identify all documents used, related to, or referred to in connection with the preparation of or answers to these Interrogatories and state the number of the Interrogatory and its subpart to each such document.

ANSWER:

See Response to Interrogatory No. 1.

2. Please state whether or not Defendant is a corporation. If so, please state:
- (a) Your correct corporate name;
 - (b) The state of your incorporation;
 - (c) The address of your principal place of business;
 - (d) Your registered agent for service in the state of Ohio;
 - (e) For each Defendant claiming that this Court lacks personal jurisdiction, list year by year the total amount of income received by the Defendant from entities in Ohio, any and all years that Defendant, as defined, has been licensed to do business in Ohio, and

any real property owned at any time by Defendant or its present or past subsidiaries.

ANSWER:

Yes, this Defendant is a corporation.

- (a) Combustion Engineering, Inc.
- (b) Delaware.
- (c) Windsor, CT.
- (d) CT Corporation, 17 S. High St., Columbus, Ohio 43215.
- (e) Not applicable.

3. State defendants complete corporate or business history, including dates of incorporation, mergers, consolidations, reincorporations, and the like. Also provide historical information regarding all predecessors, prior names, asset purchases, acquisitions or spin-offs. In addition:

- a. if defendant or any of its predecessors or subsidiaries at any time purchased, assumed, or in any other manner acquired ANY of the assets and/or liabilities of any corporation or entity at any prior time engaged in any aspect of the placing of asbestos containing products into the stream of commerce or the insuring of asbestos related risks, then please state the following as to each acquisition:
- b. the name or description of each corporation, entity or assets acquired by Defendant, that entity's state of incorporation and principal place of business, its date of in/corporation, and the name of Defendant at the time of acquisition;
- c. the manner by which each such corporation, entity or interest therein, was acquired (e.g., merger, consolidation, change of name, stock sale, transfer or purchase of assets or product line);
- d. the date of each such acquisition;

- e. the state in which each such acquisition was effected;
- f. the state law governing each such acquisition if specified by contract;
- g. whether Defendant became legally responsible for the past torts of each such corporation or entity;
- h. identify each document reflecting or related to the history and/or transaction(s) set forth in answer to this Interrogatory.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is vague, broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, this Defendant states that it does not have any predecessors as it understands that term. Furthermore, and without waiving this objection, this Defendant states that it has never controlled, purchased or in any way acquired any interest in a corporation or a business entity which has mined asbestos. This Defendant did acquire an interest in the following companies which manufactured and sold asbestos-containing insulation products.

On June 5, 1963, Combustion Engineering, Inc. acquired substantially all of the assets of the company previously known as Refractory & Insulation Corporation (a New Jersey corporation). This involved the acquisition of a refractories and insulation manufacturing plant in Port Kennedy, Pennsylvania. The consideration for the purchase was cash in the amount of \$1,932,500. Combustion Engineering expressly assumed certain enumerated liabilities, which did not include the assumption of any tort liability. There were no common directors of the two companies and no common management prior to the acquisition.

On April 3, 1964, Combustion Engineering, Inc., purchased the Insulation Division assets of the M.H. Detrick Company (a Delaware corporation). Again, this acquisition was for cash, i.e., land, building, machinery and equipment - \$275,000; existing inventories and pending sale orders - \$61,503.32. No tort liability of Detrick was assumed in this transaction. The facilities acquired were in Aurora, Illinois. As in the previous asset acquisition, there were no common directors of the two companies. There was no common management prior to the acquisition and the M.H. Detrick Company continued to exist after the acquisition and still exists today.

On March 27, 1969, Combustion Engineering acquired Walsh Refractories Corporation (a Missouri corporation). This acquisition was by way of statutory merger and thus Combustion Engineering assumed whatever liabilities Walsh may have had. Walsh Refractories was in St. Louis, Missouri. Its principal business was the manufacture and sale of refractories, although it did manufacture three or four products containing asbestos, which products were of specialized nature, usually made to order for a limited number of customers.

Furthermore, and without waiving this objection, this Defendant states this Defendant was incorporated in Delaware on October 25, 1912, as the Locomotive Superheater Company. On March 1, 1921, the name was changed to the Superheater Company and subsequently changed on December 31, 1948, to Combustion Engineering Superheater, Inc., and finally changed on April 15, 1953, to Combustion Engineering, Inc.

4. Please state whether or not the Defendant has purchased, assumed, or in any other manner acquired any of the assets and/or liabilities of any corporation or entity (such corporations or entities being limited to those engaged in the mining, selling, manufacturing, marketing or distribution of asbestos-containing products.) If so, please state the following:

- a. the name or description of each corporation, entity or assets acquired by Defendant, its state of incorporation and principal place of business, its date of incorporation, and the name of Defendant at the time of acquisition;
- b. the manner by which each such corporation, entity, or interest therein, was acquired (e.g. merger, consolidation, change of name, stock sale, transfer or purchase of assets or product line);
- c. the date of each such acquisition;
- d. the state in which each such acquisition was effected;
- e. the state law governing each such acquisition if specified by contract;

- f. whether Defendant became legally responsible for the past torts of each such corporation or entity;
- g. whether the acquisition concerned asbestos-containing products.

ANSWER:

See response to Interrogatory No. 3.

4.1 For each corporation, other than the answering defendant ("the entity"), that has at any time in the past been involved in the placing of asbestos containing products into the stream of commerce for which officers of the answering defendant's corporation have also served as officers, directors or served in any managerial position while employed by the answering defendant, state:

- a. the name of the entity involved in the placing of asbestos products into the stream of commerce;
- b. the manner in which the entity was involved in the placing of asbestos containing products into the stream of commerce (i.e., mining, milling, manufacturing, distributing, installing, rebranding, etc.);
- c. the specific products placed into the stream of commerce by the entity year by year and by brand or trade name;
- d. the name, positions and a brief description of the responsibilities of the person or persons serving the answering defendant and the entity simultaneously including the positions held with the entity and with the answering defendant.

ANSWER:

Not applicable. See response to Interrogatory No. 4.

EVER SELL ASBESTOS

5. Has Defendant ever engaged in the mining, manufacturing, selling, marketing, installation or distribution of asbestos-containing products? If so, please state the following:

- (a) The name of the company engaged in the activity (whether it is Defendant, Defendant's predecessor, or Defendant's subsidiary);
- (b) As to each product mined, manufactured, sold, marketed, installed or distributed, please state the following:
 - 1. The trade or brand name.
 - 2. Its identification number (model, serial number, etc.).
 - 3. The time period it was manufactured, mined, marketed, distributed or sold.
 - 4. Its physical description including color, general composition, and form.
 - 5. A detailed description of its intended use and purpose.
 - 6. A detailed description of the type package in which it was sold, listing the dates of each type of package used, a physical description of the package, and a description of any printed material or trademarks that appeared thereon.
 - 7. The percent of asbestos which it contained.
 - 8. The percent of asbestos by asbestos type (amosite, crocidolite, tremolite, anthophyllite).
- (c) The time period during which each of these products were on the market;
- (d) The material components/ingredients of each such product, giving specific or approximate percentage both by weight and by volume of each material component/ingredient (this interrogatory is not limited to the asbestos component of the product but seeks information as to the nature, weight and volume of non-asbestos ingredients, as well) of each such product;

- (e) How each of these asbestos-containing product can be distinguished from those of competitors;
- (f) A description of the physical appearance of such product;
- (g) A detailed description of the intended uses.

ANSWER:

(a) This Defendant objects to this subsection of this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, this Defendant states see Preliminary Statement. Furthermore, and without waiving this objection this Defendant states this Defendant never mined asbestos. This Defendant state that asbestos-containing insulation products were manufactured, distributed and sold by a subsidiary, Refractory and Insulation Corporation, a Delaware Corporation, from June, 1963 until 1967, when the name of the subsidiary was changed to R&I Ramtite Corporation. On December 31, 1967, R&I Ramtite merged into Combustion Engineering, Inc., and the asbestos-containing insulation products were thereafter manufactured, distributed and sold by the C.E. Refractories division of Combustion Engineering, Inc.

- (b) (1) See Exhibit A attached hereto.
- (2) Not applicable.
- (3) See Exhibit A attached hereto.
- (4) See Exhibit A attached hereto.
- (5) Actual use of this Defendant's asbestos-containing insulation products varied according to industry practice. The products were generally intended to be used for thermal insulation. Also, see Exhibit A attached hereto.
- (6) See Exhibits A, B, and C.
- (7) See Exhibit A attached hereto.
- (8) See Exhibit A attached hereto.

(c) See Exhibit A attached hereto.

(d) See Exhibit A attached hereto.

(e) This Defendant objects to this subsection of this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence.

Furthermore, this interrogatory requires this Defendant to be familiar with all products made by other manufacturers, which it is not.

(f) For the most part this Defendant's asbestos containing insulation products were white or off-white in color. See Exhibit A attached hereto.

(g) See response to Interrogatory No. 5(b).

6. Does Defendant or any of its subsidiary companies claim that any patent would cover any product listed in answer to Interrogatory No. 5? If so, please state the following:

- (a) The date of each patent;
- (b) The date same was issued;
- (c) The number of each patent application that is pending.

ANSWER:

This Defendant had no patents with respect to asbestos-containing products.

7. Have any of the products listed above in answer to Interrogatory No. 5 been altered in chemical composition since first being marketed? If so, please state the following:

- (a) The trade name of each such product;
- (b) The date each such product was altered;
- (c) The nature of the alteration;
- (d) The reason for the alteration.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to

the discovery of admissible evidence. Without waiving this objection, the only substantive alteration was the deletion of asbestos from all of this Defendant's asbestos-containing insulation products.

8. Have any of the asbestos-containing products listed in response to Interrogatory No. 5 ever been marketed, distributed, packaged, labeled, and/or sold by any other company or business? If so, please state the following:

- (a) The name and address of each such company.
- (b) The names and address of Defendants distributors in Ohio and Illinois since 1940.
- (c) The date of each sale.
- (d) The name of the person at each location with whom you primarily dealt.
- (e) A list of all asbestos-containing products that you sold to each location from 1945 to 1980.
- (f) The amount of each asbestos product sold to each location during this period.
- (g) Please identify all documents relating to this distributor for the particular location.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, this Defendant states that it sold Griptex Block, Super 711 Insulating Cement and Utility Thermal Finish Cement from 1963 through 1972 to Kaiser Refractories for resale under Kaiser's name. Furthermore, and without waiving this Defendant states that its distributors in Ohio were Clark Asbestos, 1964-72, Miller Refractories, 1968-72, Fosco, 1970-72, A.J. Phipps, R.D. Kramig & Co., Ohio Asbestos and Insulation Company, and S. Obermeyer.

8.01 Has this defendant ever purchased asbestos containing products from any other defendants?

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence.

8.02 If the answer to the preceding Interrogatory is yes, please state the following:

- (a) name each defendant from whom this defendant purchased any asbestos containing product;
- (b) list each product purchased from each co-defendant;
- (c) list the dates of each purchase of asbestos-containing products from each co-defendant.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, this Defendant states that it purchased raw asbestos from Chicago Firebrick Co.. See also response to Interrogatory No. 13.

8.03 Has this defendant ever sold asbestos containing products to any other defendant?

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, this Defendant states a review of this Defendant's available sales records indicates the following sales to co-defendants:

| | | |
|-----------------------|---|-------------|
| A.P. Green | 1970, Pyroscat | \$922.86 |
| Chicago Firebrick Co. | 1968-72, Griptex; block Stick | \$28,997.93 |
| Clark Asbestos | 1968-1972, Utility Cement, Griptex, Super 711, Permiseal, Pyroscat | \$37,172.21 |
| Foseco | 1970-72, Block Stick, Lite Wate 50, Griptex, Stictite, Thermal Coat, Super Stictite | \$1,129.60 |
| Pitts. Plate Glass | 1968, Stictite, Griptex | \$823.75 |

8.04 If the answer to the preceding Interrogatory is yes, please state the following:

- (a) name each defendant to whom this defendant sold any asbestos containing product;
- (b) list each product sold to each co-defendant;
- (c) list the dates of each sale of asbestos-containing products to each co-defendant.

ANSWER

See response to Interrogatory No. 8.03.

8.05 Has Defendant engaged in the manufacture and/or sale and/or distribution and/or marketing and/or supply and/or purchase and/or use of non-asbestos-containing products for use in connection with temperatures above 125' Fahrenheit since 1930. If so, please state:

- (a) the date such activity began;
- (b) the years during which such activity took place;
- (c) the date when such activity was terminated;

- (d) if such activity was terminated, the reason(s) why;
- (e) the geographical area into which you claim the product(s) were sold, purchased, or used;
- (f) identify the organizational unit of defendant so engaged;
- (g) the site(s) at which each such product was manufactured;
- (h) the material components of each such product, giving specific or approximate percentage both by weight and by volume of each material component of each such product;
- (i) the temperature ranges for which each product(s) was intended to be used;
- (k) the product's trade or brand name;
- (l) the container in which the product was shipped (i.e., paper bags, cardboard boxes) including the size and amount of the container;
- (m) a description of any logos, writing impressions or identifying markings which appeared on the product, as well as a description of the package used, the dates that type of package was used, and any logos, product names, trademarks, etc. which appeared on the package;
- (n) whether the words "non-asbestos" or "asbestos free" were used on the package;
- (o) a detailed description of the intended method of preparation and application of the product;
- (p) a description of the physical appearance of the product, including size, shape, color and texture.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence.

8.06 Did Defendant ever market or distribute any asbestos-containing product manufactured in whole or in part by someone else? If so, please state the following for each such product:

- (a) the name and address of the manufacturer;
- (b) the products trade and brand name;
- (c) the organizational unit of Defendant who did so;
- (d) date(s) beginning, ending and during which the marketing or distributing took place;
- (e) whether the product was distributed through the same channels as those used for products manufactured by Defendant, and if not, please explain the exact channels of distribution;
- (f) identify all documents relating the marketing or distribution.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, this Defendant states see response to Interrogatory No. 13. Also, see Exhibit A.

8.1 Does Defendant have reason to believe that any of the asbestos-containing products listed in response to Interrogatory No. 5 were used at any of the sites listed on Exhibit A, attached hereto. If your answer is "yes", please state:

- (a) The basis of your answer.
- (b) Please state which of Defendant's asbestos-containing products listed in Interrogatory No. 5 were used at each job site listed on Exhibit A.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, this Defendant states it cannot answer this interrogatory with specificity. Furthermore, and without waiving this objection, this Defendant states it did manufacture boilers. This Defendant supplied boilers to customers according to the terms and conditions of the contract with each particular customer. Therefore, each transaction represented a "custom" job and varied accordingly, including that aspect of the transaction involving the supply and usage of asbestos-containing insulation for the boiler. Relevant contract documents will be made available for review by plaintiff at a mutually agreeable time at the offices of this Defendant's national coordinating counsel, Arter & Hadden in Columbus, Ohio. This Defendant's records indicate that it supplied boilers to the following jobsites:

Armco Steel, Houston TX
 Contract Nos. 22165 and 19466.
 Republic Steel, Berger Plant, Canton, OH
 Contract Nos. 22245 and 24555
 U.S. Steel, McDonald Works, Youngstown, OH
 Contract No. 1295-BV-7727 (1935)
 Weirton Steel, Weirton, WV
 Contract No. 18451 (1951)
 Contract No. 1165 (1965)
 Contract No. FTB-SH-1344 (1953)
 Contract No. FTB-SH-1364 (1954)

This Defendant has reviewed its available product sales records which indicate it sold the following products to the locations listed on Exhibit A:

| Invoice No. | Jobsite | Yr/Product/Amount |
|-----------------|-------------------------------|--|
| 55044 and 55877 | Armco Steel, Ashland, KY | 1971, Black Stick, \$9.60
1971, Griptex, \$1,062.87 |
| None | Armco Steel, OH | 1968, Super Stictite, \$226.00 |
| 43475 | Armco Steel, Middletown, OH | 1970, Griptex, \$2,212.71
1970, Super 711, \$116.88 |
| 34894 | Armco Steel, Middletown, OH | 1970, Griptex Block, \$93.02 |
| 66303 | Armco Steel, Houston, TX | 1972, Lite Weight 50, \$380.00 |
| 56730 | Armco Steel, Houston, TX | 1971, Griptex Block, \$578.34 |
| None | Republic Steel, Cleveland, OH | 1968 Super Stictite, \$399.65 |
| 68606 | Timken Roller Bearing, | 1971, Stictite, \$452.00 |

| Invoice No. | Jobsite | Yr/Product/Amount |
|----------------------|---|--|
| | Canton, OH | |
| 37360 (for \$226.00) | Timken Roller Bearing,
Canton, OH | 1970 Stictite, \$632.56 (total
for 1970, but only one invoice
available) |
| None | Timken Roller Bearing,
Canton, OH | 1968, Stictite, \$452.00 |
| None | U.S. Steel, McDonald,
Youngstown, OH | 1968, Super Stictite, \$216.00 |
| None | U.S. Steel, McDonald,
Youngstown, OH | 1968, Stictite, \$216.00 |
| None | U.S. Steel, McDonald,
Youngstown, OH | 1969, Block Stick, \$19.20 |
| Illeg. | U.S. Steel, Clairton, PA | 1970 Util. Cement, \$260.00 |
| 63468 | U.S. Steel, Clairton, PA | 1972, Util. Cement, \$221.00 |
| 60219 | U.S. Steel, Clairton, PA | 1971, Util. Cement, \$221.00 |
| 52322 | U.S. Steel, Clairton, PA | 1971, Util. Cement, \$520.00 |
| None | U.S. Steel, Clairton, PA | 1968, Util. Cement, \$108.00 |
| None | Weirton Steel, WV | 1969 Super Stictite, \$63.00 |
| None | Wheeling Steel, Mingo
Junction, OH | 1968 Air Check, \$134.25 |
| None | Wheeling Steel, Mingo
Junction, OH | 1969, Utility Cement, \$90.00 |
| None | Youngstown Sheet,
Youngstown, OH | 1968, Block Stick, \$118.80 |
| None | Youngstown Sheet,
Youngstown, OH | 1969, Block Stick, \$1,187.20 |
| 52344 | Youngstown Sheet,
Youngstown, OH | 1971, Block Stick, \$460.80 |

8.2 For each company or business that Defendant knows may have marketed, distributed, installed, and/or sold, those products listed in response to Interrogatory No. 5, please state the following as to each job site listed on Exhibit A.

- (a) The name and address of each such company;
- (b) The date of each sale from Defendant to such other company;
- (c) The name of the person at each other company with whom Defendant primarily dealt.

- (d) Names and quantities of the asbestos-containing products that you marketed, distributed, installed, and/or sold to each such company from 1950 to 1974.
- (e) Please identify all documents relating to the sales to each such company.

ANSWER:

See response to Interrogatory No. 8.1.

8.3 If you do not know any business that may have marketed, distributed, installed, and/or sold the products listed in response to Interrogatory No. 5 to any of the job sites listed on Exhibit A, please state the names and last known addresses of those companies who Defendant knows marketed, distributed, installed and/or sold their asbestos-containing products in Ohio from 1950 to 1974. For each of those companies, please state the following:

- (a) Name and address of each such company;
- (b) The dates of each sale from Defendant to such other company;
- (c) The name of the person at each other company with whom Defendant primarily dealt;
- (d) The names of the asbestos-containing products that Defendant marketed, distributed, and/or sold to each such company from 1950 to 1974.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, this Defendant states see response to Interrogatory No. 8 and No. 8.2.

8.4 Does Defendant have records and/or any knowledge that reflects sales of their asbestos-containing products to any of the sites listed on Exhibit A, attached hereto?

If so, please state the following as to each job site listed on Exhibit A:

- (a) The names and last known addresses of those people with such knowledge.
- (b) The location of such records.

ANSWER:

- (a) Frank Christenson, Valley Forge, Pennsylvania.
- (b) Invoices are located at this Defendant's National Coordinating Counsel, Arter & Hadden, Columbus, Ohio.

9. Did Defendant or any of Defendant's distributors, as listed in response to Interrogatory Nos. 8.1, 8.2, and/or 8.3 have sales representatives who specifically called on the sites listed on Exhibit A, attached hereto, from 1945 to 1975? If your response is yes, as to each site listed on Exhibit A, please state the following:

- (a) The name and last known address of each such representative and whether they are still employed by Defendant;
- (b) The period of time they acted as your representative;
- (c) Their general responsibility as to each facility;
- (d) Whether that person is still alive; and
- (e) Any documents relating, referring or pertaining thereto.

ANSWER:

This Defendant states during the time that this defendant manufactured and sold asbestos-containing insulation products, its sales representatives in Ohio

were F. Bees (1963-72); T. Bees (1963-66); C. Miles (1967-70); G. Thomas (1967-72); S. Wagner (1967-72); F. Pavlick (1965-71); Mr. Beyers (1967); D. Wauschek (1967-72); Thomas O'Dwyer (1963-70); Ron Opre (1967-72); G. Bondira (1963-69); James Taskington (1963).

9.1 Identify all managers and sales personnel responsible for your sales or installation of any asbestos-containing products in Ohio from 1930 to the present and state their position, last known address and the local or regional office through which they were employed.

ANSWER:

See response to Interrogatory No. 9.

10. Did Defendant ever have any division or subsidiary engaged in the contract business of applying or removing asbestos-containing products? If so, please state:

- (a) The name of each subdivision;
- (b) The full address of the home office and the date such subdivision or subsidiary was engaged in this contracting business; and
- (c) Whether said division or subsidiary conducted such business at any of the sites listed on Exhibit A, from 1940 to 1975? If so, please state the following as to each job site listed on Exhibit A:
 - (1) The dates of such contracts;
 - (2) The specific asbestos-containing products that were used or removed in each contract.

ANSWER:

This Defendant did not have such a contract division or subsidiary.

11. Did Defendant ever have any division or subsidiary engaged in the contract business of applying or removing asbestos-containing refractory? If so, please give the name of each subdivision, the full address of the home office and the date such subdivision or subsidiary was engaged in this contracting business.

ANSWER:

Although this Defendant had a department which applied non-asbestos containing refractories, it did not have a contract unit which applied asbestos containing products.

12. Please identify by location and product produced, each plant in which products listed in your answer to Interrogatory No. 5 have been manufactured and/or assembled and the dates said plants have been in operation.

ANSWER:

This Defendant states that its asbestos-containing insulation products were manufactured at the following plant locations: Port Kennedy, Pennsylvania - June 5, 1963 through June 30, 1972; Aurora, Illinois - April, 1964 through June 30, 1972; St. Louis, Missouri - March 27, 1969 through June 30, 1972.

13. Has Defendant, at any time, entered into a "rebranding" agreement with any other company, either as a buyer or a seller, concerning any asbestos-containing products and/or materials? If so, please state:

- (a) The name of the company manufacturing the asbestos products under such agreement;
- (b) The trade name affixed to such products;
- (c) The periods of time covered by each such agreement;
- (d) The volume (in dollars amounts) of each such transaction;
- (e) The purchaser of such products;

- (f) Does Defendant currently have in its possession any of the writings or contracts concerning such rebranding agreement?

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, this Defendant states, that it purchased two products called ThermalKote and Trowel Mastic from the Flintkote Company and relabeled and sold ThermalKote as WeatherKote and ThermalKote and Trowel Mastic as Aircheck; see Exhibit A. This Defendant purchased a fibers in emulsion product from The Anderson Prichard Company and relabeled it and sold it as Permiseal. This Defendant purchased a fibers in emulsion product from the Gibson Homans Company and relabeled it and sold it as Duriseal. There are no existing documents reflecting these transactions.

13.1 Have you ever owned or operated a business or portion thereof which engaged in construction, erection or tear out of furnaces, pipes, boilers, turbines, lehrs, ovens, kilns, etc.? If so, please state:

- (a) the same of said business;
- (b) the date of commencing business and cessation of business, if applicable;
- (c) type of construction or tear out performed;
- (d) state whether said business installed or supplied asbestos-containing products on the furnaces, pipes, boilers, turbines, lehrs, etc., i.e., gaskets, pipecovering, block, cement, rope, cloth, clothes, etc., containing asbestos, asbestos pipe, board, etc.;
- (e) state the trade name and/or manufacturer of any asbestos-containing product which you installed or supplied to any site on Exhibit A.
- (f) provide the dates for the applicable construction, installation or tear-out project.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, see response to Interrogatory No. 8.1.

13.2 Do you have within your custody, possession, or control any packages that presently or formerly packaged asbestos-containing products or were produced for the purpose of packaging asbestos-containing products contemporaneous with your manufacture sale or distribution of such asbestos-containing products? If so, provide the following:

- (a) a description of each such package;
- (b) the present location and custodian of each such package;
- (c) the date or approximate date on which each such package was produced.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, see Exhibit A, B, C and E.

INFORMATION ABOUT DESIGN/TESTING

14. What is the name, address and job title of each individual who participated in the design and preparation of manufacturing specifications for each such product listed above in answer to Interrogatory No. 5?

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, this Defendant states that to the best of this Defendant's knowledge, the following persons may have been involved with the design and preparation of the manufacturing specifications: Horace N. Clark (now deceased); Louis Jacobs, Vice President of Research and Development (now deceased); Robert Nelson, President, C-E Minerals, Valley Forge, Pennsylvania (deceased); Irving Gower, Manager, Research and Development, Port Kennedy, Pennsylvania (now retired); Thomas Brown, Research and Development, Port Kennedy, Pennsylvania (no longer with company); George Woods (retired) and Al Momme (retired).

15. As to each product listed in response to Interrogatory No. 5, please describe how each product was to be cut, shaped, scribed, mixed and applied on the job. (In answer to this question, give particular reference as to whether or not the materials were to be sawed or cut on the job, blown into confined areas, mixed with water in a cement or paste.)

ANSWER:

See response to Interrogatory No. 5(b).

16. Based upon the material contents of the asbestos-containing products, the method of manufacturing, and the method of application, please state which products listed in Interrogatory No. 5 could be applied by a worker without creating dust.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence and improperly assumes that this Defendant's asbestos containing insulation products emitted dust.

17. Do any documents, including but not limited to, written memoranda, specifications, recommendations, blueprints or other written materials of any kind or character now exist relating to the design and preparation of the products listed in answer to Interrogatory No. 5? If so, please:

- (a) List each such written material or document;
- (b) Identify the person or persons presently in possession of each such document;
- (c) State where each such document is located.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, to the best of this Defendant's knowledge, it has no such documents other than a limited number of quality control records in the custody of this Defendant's national coordinating counsel, Arter & Hadden in Columbus, Ohio.

18. Prior to releasing the products listed in Interrogatory No. 5 for sale and usage, were any tests (either animal or human) conducted on said products to determine potential health hazards involved in the use of, or exposure to, the materials and/or products? If so, please state:

- (a) The name of the products tested and the date of each test.
- (b) The name, address, and job classification of each individual who conducted such tests;
- (c) The results of such tests.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, to the best of its knowledge, this Defendant states no.

18.1 Prior to releasing any products for sale and usage (whether asbestos-containing or not), were any tests (either animal or human) conducted on said products to determine potential health hazards involved in the use of, or exposure to, the materials and/or products? If so, please state:

- (a) The name of the products tested and the date of each test.
- (b) The name, address, and job classification of each individual who conducted such tests;
- (c) The results of such tests.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, to the best of this Defendant's knowledge, no.

19. Does Defendant have or control any documents, including but not limited to, written memoranda, specifications, recommendations, blueprints or other written materials of any kind or character relating to the testing of the products listed in Interrogatory No. 5 hereinabove?

- (a) Identify each such written material or document;
- (b) Identify each person who presently has possession of each such document;
- (c) State where each such document is located.

ANSWER:

See response to Interrogatory No. 17.

20. Were any design changes or modifications made as a result of such tests listed in answer to Interrogatory No. 18 hereinabove? If so, please state:

- (a) The trade name of the product changed or modified;
- (b) The nature of the change made and the date of such changes or modifications;
- (c) The name, address, and job classification of each person in charge of making a change.

ANSWER:

See response to Interrogatory No. 18.

21. After releasing for sale, distribution or marketing the products listed in answer to Interrogatory No. 5, did Defendant conduct any tests (either on animals or humans) to determine potential health hazards involved in the use of said materials and/or products?

- (a) The names of the products tested and the dates of said tests;
- (b) The name, address, and job classification of each person and/or agency conducting said tests;
- (c) The results of said tests;
- (d) Whether, as a result of any tests conducted, any products were removed from the market;
- (e) The names of all products removed from the market as a result of said tests.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, to the best of this Defendant's knowledge, no.

22. Has Defendant ever conducted or caused to be conducted any studies concerning the effects of the inhalation of asbestos dust and/or fibers on workers or other persons applying, using and/or working around any of the asbestos products manufactured, sold, distributed and/or relabelled for distribution by you or your predecessor? If so, please state:

- (a) The dates and nature of such studies;

- (b) The names and addresses of persons conducting such studies;
- (c) The purpose of such studies;
- (d) Identify and list those persons to whom such reports were given and the date of such dissemination;
- (e) State any publication or other written dissemination of the results of such studies;
- (f) State the nature of any action to eliminate or minimize the inhalation of asbestos dust fibers; and
- (g) Attach a copy of reports based upon such studies.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, to the best of this Defendant's knowledge, no.

INFORMATION ABOUT SAFETY

23. Before placing in the market the asbestos-containing products that Defendant, mined, manufactured, sold, marketed, installed or distributed on the market, did Defendant make or cause to be made, any studies to determine whether their asbestos-containing products would be hazardous to people? If so, please state:

- (a) The date of said studies;
- (b) What studies were done; and
- (c) The titles of each study.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, this Defendant states no.

24. Please state whether or not Defendant ever conducted or caused to be conducted any tests in the field (where asbestos-containing products were applied, removed or utilized) to determine the nature and extent of asbestos dust and/or fiber exposure to insulators, applicators, fellow employees, or other workers removing and/or tearing out asbestos-containing products, and/or other workers in the vicinity thereof? If so, please identify:

- (a) The date, place and nature of each and every test;
- (b) The particular asbestos-containing products to which each test applied;
- (c) The results of each test with particular reference to the number of asbestos fibers per cubic centimeter of air found at each site; and
- (d) The persons to whom the results said tests were given and the date of such dissemination.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, this Defendant states no.

25. Please state whether or not Defendant ever obtained any knowledge concerning the likelihood of asbestos being hazardous to human health. If so, please state:

- (a) When Defendant first became aware of the hazardous potential of asbestos dust and asbestos fibers;
- (b) The manner in which the Defendant, Defendant's predecessor, or Defendant's subsidiary companies first obtained this knowledge and became aware of said hazards and from what source this information was obtained;
- (c) What information was disseminated within Defendant's company, or its subsidiary or predecessor regarding such adverse consequences or effects;
- (d) Whether any such information is still maintained by Defendant or its subsidiary or predecessor in any written form.
- (e) The name, address and job classification of the custodian of such information.

ANSWER:

(a) (b) This Defendant objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, this Defendant states that it has no records or other information regarding how it first became aware of certain alleged potential health hazards associated with the use and/or fabrication of asbestos-containing products. Nonetheless, this Defendant had become aware of certain alleged potential health hazards associated with the use and/or fabrication of asbestos-containing products by 1969 when it began to use warnings.

(c)(e) Beginning in 1969 all production workers in Defendants' plant who worked with asbestos were required to wear respirators. This Defendant has no records from which it can determine specifically how employees were informed of the requirement. Also see Exhibit D which is a Combustion Engineering, Inc. Industrial Hygiene Bulletin dated March, 1972. Beginning in 1969, exact date unknown, this Defendant began printing, stamping or stenciling warnings on all of the packages of its asbestos-containing insulation products. See Exhibit B.

26. Please state when Defendant first became aware of the possible association between inhalation of asbestos dust and/or fibers and the contraction of asbestosis and cancers including, but not limited to gastrointestinal cancer, laryngeal cancer, renal cancer, lymphoma, lung cancer and mesothelioma. As to each disease or condition, please state the source of that information, including a description of all tests conducted relative to the possibility of such a relationship.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. This Defendant further objects to this interrogatory on the grounds that it improperly call for a medical or scientific opinion which this Defendant is not qualified to give. Without waiving this objection, see response to Interrogatory No. 25.

27. Please identify all physicians, industrial hygienists, and other employees (including their names and addresses) who were employed, retained or otherwise engaged by Defendant for research, investigation or study concerning asbestos or asbestos-related diseases

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, this Defendant states that during the time that it manufactured, distributed and sold asbestos-containing insulation products, industrial hygienists were hired primarily to comply with regulations of the Atomic Energy Commission. Robert Hancock was responsible for industrial hygiene during the time frame in which this Defendant manufactured asbestos-containing insulation products. In addition, the following individuals were responsible for various aspects of health and safety and may have been involved regarding the potential medical, toxicological or industrial hygiene

aspects of asbestos or asbestos containing products. Paul Osimo, industrial hygienist; Reynold Hoover, Manager of Health and Safety; Carl L. Green, Environmental Control Engineer. The only physicians employed by this Defendant were employed to conduct routine physical examinations and to handle emergencies. This Defendant is unaware of the identity of these physicians nor is it in the possession of their records.

28. As to each person who acted in a medical advisory capacity (as it relates in any way to asbestos) to Defendant, please list their name, the date individual acted in this capacity, and that person's current address and job title.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, this Defendant states that during the time that this Defendant engaged in the manufacture, distribution and sale of asbestos-containing insulation products it did not have a "medical director".

29. Please state if any medical officer or industrial hygienist or medical consultant ever made at any time any recommendations and/or suggestions to Defendant pertaining to the risks or hazards to persons involved in the manufacture or use of asbestos products and, if so, please state when, by whom or to whom such recommendations and/or suggestions were made and the substance of each recommendation.

ANSWER:

See responses to Interrogatory Nos. 27 and 28. Also, see Exhibit D.

30. Please state the scientific and/or medical periodicals to which Defendant, its medical department, research department, industrial hygiene divisions, engineering department or consulting physicians subscribed between 1945 and 1975.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, this Defendant states that it has no records regarding what periodicals this Defendant subscribed to during the time period in which it manufactured asbestos-containing products.

30.1 Please state whether Defendant, its medical officer or industrial hygienist or medical consultant or physicians were ever involved in testing or received literature or correspondence from the Mellon Institute.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, see response to Interrogatory Nos. 27 and 28.

30.2 Has any engineer, industrial hygienist or physician in your employ been a member in any professional group, trade group or any of the following groups:

Asbestos Textile Institute
National Insulation Manufacturers Association
Thermal Insulation Manufacturers Association
Quebec Asbestos Mining Association
Asbestos Information Association

Industrial Health Foundation
Industrial Hygiene Foundation
Iron and Steel Institute
National Safety Counsel
Refractories Institute
Air Hygiene Foundation of America, Inc.
Sprayed Mineral Fiber Association

If the answer is yes, state the following:

- (a) The name of the group or groups in which the individual(s) were members;
- (b) The name and position individual(s) within the Defendant, as defined, who were members;
- (c) The years the individual(s) were members of the groups;
- (d) Whether the Defendant paid the individual(s) dues or membership fees or reimbursed the individual(s) for dues or membership fees in the group.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is overly broad, unduly burdensome, seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, this Defendant states other than the Refractories Institute, to the best of its knowledge, it belonged to none of the organizations referenced in this interrogatory.

31. State in detail what test, if any, Defendant ever made with regard to the quantity, quality, or threshold limit values of asbestos dust, fibers or particles to which workers were exposed while using, working with and/or around, installing and/or applying your asbestos-containing products.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence, and improperly assumes that this Defendant's asbestos-containing insulation products emitted asbestos dust, fibers, or particles. Without waiving this objection, this Defendant states that it did not conduct such tests.

32. For each test described in Interrogatory No. 31, please give the name of the person conducting the test, the date of the test, and attach true copies of any documents, including but not limited to, reports, findings or memoranda concerning such tests or studies.

ANSWER:

Not applicable. See response to Interrogatory No. 31.

33. Please state the year that Defendant was first advised of either threshold limit values or maximum allowable concentrations of both asbestos dust and total dust by the American Conference of Governmental Industrial Hygienists and state the name of the employee/official of the company receiving such advice.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, this Defendant states that it is unable to state the date or source of its first knowledge of guidelines for Threshold Limit Values.

33.1 State whether this defendant at any time caused to be conducted on. any job site, any air sampling, dust counts, tests or other activities to determine air quality or worker safety. If your answer is in the affirmative, please indicate:

- (a) the date of any such air samples, tests, or activities;
- (b) by whom such activities were performed;
- (c) where such activities were performed;
- (d) the results of any such activities.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, this Defendant states that to best of its knowledge no.

34. Does Defendant maintain a library dealing with industrial hygiene, medicine, safety and engineering and/or research? If so, state:

- (a) The date each such library was established,
- (b) The location of each library;
- (c) The name(s) of the library(s) since 1930;
- (d) List all journals subscribed to by you concerning asbestos, industrial hygiene, medicine, safety, and/or engineering;
- (e) List all books and articles dealing with asbestos and asbestos-related diseases and the date acquired.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection this Defendant states that it does not maintain a library dealing specifically with industrial hygiene, medicine, industrial safety and industrial engineering; however, this Defendant has for a number of years maintained a corporate library which may contain material dealing with these subjects. The library is located in Windsor, Connecticut. The name of the librarian is Barbara Drelich-Dembek. A number of publications involving occupational health generally have been received over the years. Specific articles containing information with respect to asbestos products would be difficult to ascertain; however, some of the articles would include:

Occupational Health, May R. Meyers, M.D., The Williams & Wilkins Company, Baltimore, MD, 1969, pp. 48-50, 58, 294, 296; Industrial Environmental Health, Lester V. Cralley, George D. Clayton and John A. Jurgiel, Academic Press New York and London, 1972, pp. 4-9, 94, 292, 313, 344; Accident Prevention Manual for Industrial Operations, National Safety Council, Chicago, Illinois, 1974, pp. 1030, 1045, 1128; Fundamentals of Industrial Hygiene, Julian R. Oleshifski and Frank E. McElray, National Safety Council, Chicago, Illinois, 1971, pp. 1123, 751-861; Occupational Cancer, U.S. Department of Labor, July 1975, Vol. 3, No. 7; Asbestos: Airborne Danger, U.S. Department of Labor, 1972; TLV's ACGIH, including 1976; Job Safety and Health, U.S. Department of Labor, pp. 13-14, March, 1976; OSHA Federal Register, Title 29 Labor Part 1910, Subpart G - Occupational Health & Environmental Control, 1910.932 - Asbestos; Industrial Hygiene Progress Reports, Environmental Science Laboratory, Mt. Sinai School of Medicine, New York; Occupational Safety and Health Reporter, BNA, Washington, D.C.

35. Did Defendant in the 1920's or 1930's commission, or participate in the arrangements with Metropolitan Life Insurance Company for studies at the Trudeau Foundation at Saranac Lake, New York, concerning the effect of inhalation or ingestion of asbestos fibers upon human and/or animal bodies.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, this Defendant states no.

36. When was Defendant first aware of reports of studies of the Trudeau Foundation at Saranac Lake, New York, entitled "Effects of the Inhalation of Asbestos Dust in the Lungs of Asbestos Workers" by A.J. Lanza, Assistant Medical Director published in the J. Public Health Report, Vol. 50, No. 1, dated January 4, 193 5 ("Lanza Report")?

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, this Defendant states that it does not know when it first became aware of such studies but believes it only became aware of such studies through the course of asbestos related litigation after it ceased manufacturing asbestos containing insulation products.

36.1 Did you ever contract with Saranac Laboratories to study the hazards of any dust producing product manufactured by you (whether asbestos containing or not)? If so, identify by date and author all documents concerning or any way related to such study.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to

the discovery of admissible evidence. Without waiving this objection this Defendant states no.

36.2 Did you ever contract with Saranac Laboratories to analyze dust or products? If so, identify by date and author all documents concerning or any way related to such analysis.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection this Defendant states no.

37. Please state whether the Defendant at any time has been a member of any "trade organization" or "trade association" composed by other manufacturers, miners, distributors, and/or sellers of asbestos-containing products and, if so, please identify the name and address of each such association or organization, the dates of membership, and the names of any publications issued or written by such association or organization.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, this Defendant states that it belonged to no associations, foundations or organizations relating to asbestos.

38. With respect to each trade organization or association listed in answer to Interrogatory No. 37, please state whether the minutes of the group's meetings and any

correspondence between the members of such groups concerning the hazards of asbestos exposure are available.

ANSWER:

Not applicable. See response to Interrogatories No. 37.

39. Please identify by name the technical and trade association periodicals to which the Defendant subscribed, and state whether Defendant had knowledge of any articles being printed, or withheld from printing, in said periodicals pertaining to the potential hazards of asbestos. If so, please state the following:

- (a) The title of each such article;
- (b) The periodical in which each such article was published;
- (c) The date each such article was published;
- (d) A detailed explanation of the reason for withholding any such article for printing;
- (e) Produce documentation which refers, alludes or mentions articles which were withheld for publication.

ANSWER:

See response to Interrogatory No. 30.

40. Please state whether, prior to 1975, the Defendant sponsored, or attended any meeting, seminar, conference, convention or legislative hearing where the subject of occupational health and exposure to asbestos was discussed and, if so, please state the date and place of such meeting and the name and address of any speakers or participants.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, this Defendant states that while it would be impossible to determine whether any employee of this Defendant at any time ever attended any meeting, seminar, conference, convention or legislative hearing, this Defendant to the best of its knowledge, never sponsored or sent a representative to such meeting, seminar, conference, convention or legislative hearing.

WARNINGS/SALES PROMOTION

41. As to each product listed in response to Interrogatory No. 5, please state whether Defendant, at any time, published and/or distributed any printed materials, including but not limited to brochures, pamphlets, catalogs, packagings or other written materials of any kind or character that contain any warnings, cautions, caveats or directions concerning the possible health effects of the products on a person. If so, please state as to each product:

- (a) The name of each relevant product;
- (b) The wording of each such warning;
- (c) A description of each such printed material;
- (d) The method used to distribute the warning to persons who are likely to use the products;
- (e) The date each such warning was issued;
- (f) Whether any warning accompanied any of your asbestos-containing products' sales literature, handout or pamphlets;
- (g) Please attach a copy of the warning and date said warning was issued;

- (h) The name, address, and job classification of each person who presently has possession of the above-described documents;
- (i) The name or names and addresses of the company who provided, produced, or manufactured the boxes or containers on which the warning appeared and dates these boxes with the warnings appeared.

ANSWER:

Yes.

- (a) See Exhibit A attached hereto;
- (b)(c)(g) See Exhibit B attached hereto;
- (d)(e) Beginning in 1969, exact date unknown, this Defendant began printing, stamping or stenciling warnings on all of the packages of its asbestos-containing insulation products. The warnings were prominently displayed on the packaging..
- (f) This Defendant did not advertise its asbestos-containing products.
- (h) See Exhibit B attached hereto.
- (i) This Defendant has no information regarding the company which provided, produced or manufactured the containers, and therefore, cannot answer this interrogatory. See responses to (d) and (e).

42. Has sales material been prepared by Defendant or its agents for purposes of marketing or advertising the asbestos products listed in answer to Interrogatory No. 5? If so, please state:

- (a) The name and address of each person or entity who prepared same;
- (b) The name, address and job title of each person who presently has possession of same;

- (c) The date same was prepared;
- (d) The media used to disseminate the sales material.

ANSWER:

This Defendant did not advertise its asbestos-containing insulation products. Also, see response to Interrogatory No. 43.

43. Has any written material of any kind or character been prepared by Defendant, Defendant's predecessor or any of Defendant's subsidiary companies or their agents indicating how the products listed in answer to Interrogatory No. 5 should be used or maintained by the ultimate user or those working in facilities or at job sites where the product was used, installed or removed, including, but not limited to, those sites listed on the job site list attached as Exhibit A. If so, please state the following:

- (a) The name, address and job classification of each person who prepared same;
- (b) The name, address and job classification of each person who presently has possession of same;
- (c) The dates and manner in which said material was distributed to purchasers of the products in answer to Interrogatory No. 5.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is vague, broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, this Defendant states that although this Defendant did not advertise its asbestos-containing insulation products it did distribute technical information and materials from time to time. Defendant prepared a booklet in 1970 and also had some incomplete material prepared in 1964. To the best of this Defendant's knowledge, the information contained in the 1970 materials was prepared by Donald Peterson, formally the Administrative Assistant to the

Vice-President of Sales, and Kenneth Cohn, formally Office Manager of the Sales Department. This Defendant has no records regarding who prepared the 1964 materials. Copies of such extant materials are attached as Exhibit C.

44. Was any written material of any kind prepared by Defendant and distributed to those individuals listed in response to Interrogatory No. 9? If so, please state the following:

- (a) Identify the written material by content and date;
- (b) To whom was it delivered.

ANSWER:

See response to Interrogatory No. 43.

45. Does Defendant contend that asbestos-containing products can be manufactured so as to eliminate all potential health hazards to persons working with or around, installing or applying same? If so, please state the following:

- (a) The date that Defendant first determined that another product could be used in place of asbestos;
- (b) The chemical of the substitute;
- (c) Whether the substitute is suitable for the purpose for which they are to be used;
- (d) Whether Defendant used the substitute for asbestos to 1971;
- (e) Whether Defendant ever used the substitute for asbestos for high or low heat insulation.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence because this interrogatory relates to products not manufactured by this Defendant, which this Defendant cannot be expected to be knowledgeable about. Without waiving this objection, this Defendant denies that its products posed a potential health hazard to those working with these products. This Defendant states that it knows of no totally equivalent substitute for asbestos.

46. Did Defendant give any warnings to any individuals at the sites listed on Exhibit A, including any individuals who owned, operated, or managed the facilities at the sites listed on Exhibit A, regarding the potential health hazards of any product listed in response to Interrogatory No. 5. If yes, please state:

- (a) Name of person most knowledgeable about this communication.
- (b) Name of person at the sites listed on Exhibit 1, attached hereto most knowledgeable about this communication.
- (c) Dates of each communication.
- (d) Contents of each communication.

ANSWER:

This Defendant has no information or documents from which it can respond to this interrogatory with specificity. See response to Interrogatory No. 41.

KNOWLEDGE OF PREVIOUS INJURIES

KNOWLEDGE OF PREVIOUS INJURIES

47. Did any person prior to 1970, file a claim against any Workers'

Compensation carrier covering Defendant alleging that he or she contracted a disease as a result of exposure to asbestos? If so, please state the following:

- (a) A list of each such claim by claimant's name, date filed, the caption and jurisdiction involved;
- (b) The disease alleged in each such claim;
- (c) A brief summary of the disposition of each such claim; and
- (d) The name, address and job classification of the person or persons having custody of the records pertaining to each such claim.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, to the best of this Defendant's knowledge, no.

47.1 Please identify all documents concerning or in any way related to any decisions made by you to cease manufacturing asbestos-containing products.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, this Defendant states that the production of some of this Defendant's asbestos-containing insulation products was halted during the mid-to-late

47.2 Has any person or company from which you purchased asbestos containing products ever issued a recall of their products or taken any action to take those products off the market after said products were in your possession? If so, provide:

- (a) the date of said recall;
- (b) the name of the company which issued the recall;
- (c) a copy of the recall.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence.

47.3 State what action, if any, you have ever taken since 1930 to minimize or eliminate any risk of occupational disease or pneumoconiosis to those at any time engaged in the manufacture or production of asbestos-containing products.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, this Defendant states beginning in 1969, all production workers in Defendant's plants who worked with asbestos were required to wear respirators. The requirement to wear respirators was mandatory. Also, because Defendant also manufactured refractory products at its plants, respirators were always available to production employees during the entire time that this Defendant manufactured asbestos-containing products.

47.4 State what action, if any, you have ever taken since 1930 to minimize or eliminate any risk of occupational disease or pneumoconiosis to those at any time engaged

in the use, as distinguished from the manufacture, or exposed to the use of asbestos-containing or industrial insulation products or who were otherwise exposed to asbestos-containing or industrial insulation products.

- (a) describe such action;
- (b) state when such action was taken;
- (c) state what written material exists related to such action;
- (d) state the names, job titles and last known address of the individuals who undertook such actions.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection this Defendant states beginning in 1969, exact date unknown, this Defendant began printing, stamping or stenciling warnings on all of the packages of its asbestos-containing insulation products. Those warnings specifically recommended the use of respirators. See Exhibit B. To the best of this Defendant's belief, marketing, legal and various other departments were involved in the decision to use warnings.

48. Did Defendant receive notice prior to 1968 that any person was claiming injury as a result of using asbestos products manufactured, sold, installed, and/or distributed by Defendant? If so, please state:

- (a) The name and address of each claimant;
- (b) The date of notice of each claim;
- (c) A description of the claim;
- (d) The type of injuries allegedly sustained;

- (e) The name and address of each attorney representing the individuals making such claims;
- (f) The style and court number of each such claim;
- (g) The resolution of each claim.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, this Defendant states that to the best of its knowledge, it first received notice of such a claim in 1967 when it was served with a summons and complaint regarding alleged health impacts resulting from exposure to asbestos. The case was filed in Beaumont, Texas in Federal Court by Claude Tomplait.

48.1 Describe the method by which you have maintained records concerning the manufacturer, sale, supply, distribution, use, advertising, delivery and/or installation or tear-out of each of asbestos-containing products. For each description provide the following:

- (a) each present and former company or corporate department, division or subdivision responsible for maintaining such records;
- (b) the manner in which the records are kept (e.g., boxes, computer tape, microfilm, etc.);
- (c) the inclusive dates of any such manufacturer, sale, supply, distribution, use, advertising, delivery, and/or installation or tearout which such record keeping system covers;
- (d) the present location at which all such records are maintained;
- (e) the identity of each person employed by you at any time from 1930 to the present who is or was responsible for the collection and maintenance of such records.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection this Defendant states that during the time period that it manufactured asbestos-containing insulation products, it had no written record retention policy. However, it generally retained its records for a six-year period, after which they were destroyed, except for records required by law to be kept, such as Internal Revenue Service Records, and certain contract documents. Available invoices regarding the sale of asbestos containing products are located at Defendants' national coordinating counsel, Arter & Hadden in Columbus, Ohio.

48.2 State whether any records concerning the manufacture, sale, supply, distribution, advertising, delivery, use or installation or tear-out of asbestos-containing products have been destroyed or discarded and if so, indicate:

- (a) the date and location of such destruction or discard;
- (b) the custodian and location of such records prior to their destruction or discard and the identity of each employee, representative, official or agent who ordered, authorized or supervised such destruction or discard.

ANSWER:

This Defendant is unable to determine what records may have been destroyed in the past. See response to Interrogatory No. 48.1.

48.3 For all documents, other than invoices, work orders and/or purchase orders, which relate to matters relevant to the all the preceding interrogatories:

- (a) Is there any kind of index for the documents?
- (b) How many pages is the index of documents?
- (c) How many documents are referred to in the index?

- (d) Is the index maintained in electronic format (i.e. database, word processing or other computerized format)?
- (e) What manner of electronic format is used?

ANSWER:

See response to Interrogatory No. 48.1.

48.4 For all invoices, work orders and/or purchase orders, which relate to matters relevant to the all the preceding interrogatories:

- (a) Is there any kind of index for the documents?
- (b) How many pages is the index of documents?
- (c) How many documents are referred to in the index?
- (d) Is the index maintained in electronic format (i.e. database, word processing or other computerized format)?
- (e) What manner of electronic format is used?

ANSWER:

See response to Interrogatory No. 48.1.

PLAINTIFF/DECEDENT

49. Has Defendant obtained statement from any witnesses including the Plaintiffs? If so, please:

- (a) list each witness who has given a statement and the name, address, and job title of each person having custody of any such statement.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it seeks protected attorney work product and privileged attorney client communications. Without waiving this objection, this Defendant has not obtained any such statements other than deposition testimony.

50. Do you contend that the Plaintiff/Decedent improperly used those products listed in response to Interrogatory No. 5? If so, please set out in detail in what respect the product was improperly used.

ANSWER:

When discovery is completed, all proper contentions will be made.

51. As to the sites listed on Exhibit A, and as to each Plaintiff/Decedent, please state whether Defendant contends that there was any substance other than asbestos which contributed or caused Plaintiff/Decedent's injuries. If your answer is yes, please state the following:

- (a) The facts upon which you rely;
- (b) The identity of the sources upon which you rely which substantiate these facts.

ANSWER:

When discovery is completed, all proper contentions will be made.

RESPIRATORS

52. Would any respirator, mask or other breathing devices prevent inhalation of the asbestos dust and fibers contained in products listed in answer to Interrogatory No.

5? If so, state:

- (a) When the respirator was sold;
- (b) A detailed description of such respirator or other breathing devices, including name of manufacturer and model number;
- (c) The basis of your claim that such respirators or other breathing devices will prevent the inhalation of such dust and fibers;
- (d) Identify any tests performed regarding the efficaciousness of such respirators and other breathing devices in preventing the inhalation of asbestos dust and fibers including date, title, author and number;
- (e) List all documents which mention, allude or refer to tests performed on breathing devices which prevented the inhalation of asbestos dust and/or fibers.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence and further on the grounds that it incorrectly assumes that this Defendant's asbestos containing insulation products emit asbestos dust and fibers and improperly calls for an expert scientific opinion. Without waiving this objection, this Defendant states that the warning label attached as Exhibit B specifically referenced the use of respirators.

53. Does Defendant expect to call expert witnesses at the trial of this case? If so, please state the following:

- (a) Their identity, last known address;
- (b) The subject matter on which the expert is expected to testify;

- (c) The expert's specific conclusion, and specific opinions and the specific basis therefore;
- (d) The expert's qualifications to render the opinions set forth above;
- (e) Whether any person identified in sub-paragraph (a) above has provided a report or other documentation to you, and if so, identify such document or report;
- (f) Identify all documents that you have provided to each person identified in response to sub-paragraph (a) above; and
- (g) Describe in detail the education and work history of, and identify any books, treaties, article, published and unpublished reports, studies or other scholarly works authored by any individual identified in response to subparagraph (a) above. Alternatively, in lieu, of said response, attach a copy of a resume or curriculum vitae and a list of publications to your answer.

ANSWER:

Because discovery in this matter is ongoing, this Defendant is unable to identify its witnesses at this time, but will timely identify such witnesses and relevant information regarding their testimony prior to trial.

54. Please state the name and last know address of each expert witness who is not retained or employed for that purpose who is an employee of Defendant and will render an opinion within his expertise at the time of trial.

ANSWER:

Because discovery in this matter is ongoing, this Defendant is unable to identify its witnesses at this time, but will timely identify such witnesses prior to trial.

55. Does Defendant admit that service of process was properly had on it in these cases? If not, please state why.

ANSWER:

Yes.

55.1 For each and every affirmative defense asserted in the answering defendant's Answer to Plaintiffs' Complaint, the Cross-Claims or Counter-Claims of any party against this answering defendant state:

- (a) the facts upon which the answering defendant relies for each and every affirmative defense;
- (b) each and every document which will be offered to prove each and every affirmative defense; and
- (c) each and every witness who will testify in support of each and every affirmative defense.
- (d) the substance and subject matter of the anticipated testimony of each witness identified in the preceding response.

ANSWER:

Defendant is unable to answer this interrogatory fully and completely based upon incomplete discovery. Defendant will provide an appropriate response once discovery is completed.

56. Does Defendant have policies of insurance that might cover the claims that have been made by the Plaintiffs herein?

- (a) If so, please list the name of each insurance carrier who may have coverage, the amount of such coverage, and the dates of each such policy.

ANSWER:

This Defendant objects to this interrogatory on the grounds that it is overly broad, unduly burdensome and seeks information which is neither relevant to

the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence. Without waiving this objection, this Defendant states during the time that this Defendant manufactured asbestos-containing insulation products, it carried liability insurance with the Travelers Insurance Company, Hartford, Connecticut, primary policy \$500,000; umbrella policy \$5,000,000; plus various layers of excess insurance, all subject to varying deductibles depending upon the year of coverage and subject to the terms, limitations and conditions of the respective policies.

Have you ever been involved in any litigation concerning potential coverage for asbestos products liability matters? If so, please state:

- (a) the case caption, court and date of filing of each case in which you have been involved;
- (b) whether you were plaintiff or defendant;
- (c) a brief statement of the issues;
- (d) identify by date, author and recipient(s), (including recipients of carbon copies) all documents listed as exhibits by either party in this litigation;
- (e) identify by deponent and date all individuals who were deposed in these cases;
- (f) identify by date, author and recipient(s) : documents that have been placed on a protective order in such litigation;
- (g) identify all expert witnesses retained for use at trial in any of the above litigation by name, address and telephone number.

This Defendant objects to this interrogatory on the grounds that it is vague, overly broad, unduly burdensome and seeks information which is neither relevant to the subject matter of this case nor reasonably calculated to lead to the discovery of admissible evidence.

VERIFICATION

STATE OF CONNECTICUT)
)SS.
COUNTY OF HARTFORD)

M. John Hornik, of Combustion Engineering, Inc., being first duly sworn says that he is authorized to execute this Affidavit on behalf of Combustion Engineering, Inc. and that the foregoing Responses of Defendant Combustion Engineering, Inc. to Plaintiffs' Master Set of Interrogatories and Request to Produce are true based upon information and belief.

M. John Hornik

Sworn to before me and subscribed in my presence on this _____ day of _____, 1997.

Notary Public

A

| EXHIBIT A | | | | |
|---------------------------------------|--------------|-------------------|------------------------------------|----------------------------|
| INSULATING BLOCK | C-E
START | ESTIMATED
STOP | PERCENT AND
TYPE OF
ASBESTOS | CONTAINER |
| (m) #12 Insulating Block (R) | 1963 | 1966 | 6.2(A) | Cardboard Carton |
| (m) #19 Insulating Block (R) | 1963 | 1966 | 4.6(A) | Cardboard Carton |
| (m) Griptex* Mineral Wool Block (R) | 1964 | 1972 | 2.0(C) | Cardboard Carton |
| (m) Kaiser M. Block (D) | Unknown | 1971 | 2.0(C) | Cardboard Carton |
| INSULATING CEMENTS | | | | |
| (m) Stic-tite* (R)-(D) | 1963 | 8/30/72 | 38.6-42.2(C) | 50 lb. bags |
| (m) Super Stic-tite (R)-(D) | 1963 | 8/30/72 | 9.89-10.2(C) | 50 lb. bags |
| (m) Super Finish Stic-tite (R) | 1963 | 6/27/72 | 11.5-13.1(C) | 50 lb. bags |
| (m) Super Finish (R) | 8/10/65 | 1/10/68 | 14.2(C) | 40 lb. bags |
| (m) Super 711 (D) | 1964 | 6/27/72 | 13.7(C) | 50 lb. bags |
| (m) Kaiser Plastic Insulation (D) | 1964 | 1971 | 13.7(C) | 50 lb. bags |
| (m) Utility Thermal Finish Cement (D) | 1964 | 2/28/72 | 5.0(C) | 50 lb. bags |
| (m) Kaiser Hard Top (D) | 1964 | 2/28/72 | 5.0(C) | 50 lb. bags |
| (m) Casing Cement (D) | 1964 | 1969 | 5.0(C) | 50 lb. bags |
| (m) MHD Finishing Cement (D) | 1964 | 1968 | 68.03(C) | 50 lb. bags |
| (m) Pyroscat* Fireproofing Cement (D) | 1964 | 6/8/72 | 3.0(C) | 50 lb. bags |
| (m) Hilite Insulating Cement (D) | 1964 | 1968 | 9.1(C) | 50 lb. bags |
| (m) A-1199 Insulating Cement (R) | 1963 | 1966 | 43.4(C) | 50 lb. bags |
| (m) SDK 50 (R) | 1963 | 1966 | 0.4(A) | 50 lb. bags |
| (m) Buck Stay Cement A-1360 (R) | 1965 | 1966 | 0.8-1.54(A) | 50 lb. bags |
| (m) Castabloc* (R) | 1965 | 1/19/66 | 1.2(A) | 50 lb. bags |
| (m) Stirrup Cement (R) | 1965 | 1966 | 42.7(C) | 50 lb. bags |
| (m) Calcrete 30 (D) | 1964 | 1970 | 7.8(C) | 50 lb. bags |
| MISCELLANEOUS PRODUCTS | | | | |
| (m) Block Stick (R) | 1963 | 6/28/72 | 22.0(C) | 6 gal. steel
containers |
| (m) Guninsul (R) | 1963 | 1966 | Approx.
1.0(A) | 50 lb. bags |
| (m) Mix A (R) | 1963 | 6/27/72 | 6.0(C) | 40 lb. bags |
| (m) Fibrous Adhesive (D) | 1964 | 1965 | 15.0(C) | steel containers |
| (m) Hy-Temp Flexible Cement (R) | 1963 | 1972 | 30.0(C) | 5 gal. steel
containers |
| (m) Expansion Joint Material (R) | 1963 | 1966 | 100.0(A) | 25 lb. bags |

| <u>INSULATING REFRACTORIES</u> | <u>C-E
START</u> | <u>ESTIMATED
STOP</u> | <u>PERCENT AND
TYPE OF
ASBESTOS</u> | <u>CONTAINER</u> |
|--|----------------------|---------------------------|---|-------------------------------------|
| (m) Lite Wate 22 (W) | 1969 | 6/26/72 | 10.0(C)/
27.0(C) | 50 lb. bags |
| (m) Lite Wate 50 (W) | 1969 | 1972 | 10.0(C) | 50 lb. bags |
| <u>PRODUCTS DISTRIBUTED BY C-E</u> | | | | |
| (d) Asbestos Rope | 1964 | 1965 | 100.00(C) | tied 100 ft. |
| (d) Permaseal
(fibers in emulsion) | 1964 | 1974 | Approx.
3.0(C) | 5 & 54 gal.
steel containers |
| (d) Weatherkote
(fibers in emulsion)
(Thermal-kote since 1976) | 1963 | 1977 | Approx.
3.0(C) | 5, 30 & 55 gal.
steel containers |
| (d) Duriseal
(fibers in emulsion) | 1964 | 1973 | Approx.
3.0(C) | 5, 30 & 55 gal.
steel containers |
| (d) Thermal Coat
(fibers in emulsion) | 1964 | 1964 | Approx.
3.0(C) | 5, 30 & 55 gal.
steel containers |
| (d) Air Check
(fibers in emulsion) | 1963 | 1971 | Approx.
3.0(C) | 5, 30 & 55 gal.
steel containers |

KEY:

- (r) - R & I; Port Kennedy, Pennsylvania
- (D) - Detrick; Aurora, Illinois
- (W) - Walsh; St. Louis, Missouri
- (m) - manufactured
- (d) - distributed
- (C) - containing chrysotile
- (A) - containing amosite
- (*) - Trademark

SECRET

SECRET

1. The following information is being furnished to you for your information:

(S)

(S)

B

(S)

EXHIBIT B

CAUTION: This product contains asbestos fibers. Excessive inhalation of asbestos may be harmful. If adequate ventilation is not possible, wear respirators approved by U.S. Bureau of Mines.

SECRET
CONFIDENTIAL

C

C

SECRET

INDUSTRIAL INSULATIONS

TECHNICAL DATA



REFRACTORIES

A DIVISION OF COMBUSTION ENGINEERING, INC.

800° ROPE IS A COMMERCIAL GRADE, WHITE CHRYSOTILE ASBESTOS FIBER.
1000° ROPE IS A PURE 98/100% WHITE CHRYSOTILE ASBESTOS FIBER.

APPLICATIONS OF C-E ASBESTOS ROPE . . HERE ARE SOME OF THE MANY SERVICES

STEEL MILLS AND FOUNDRIES

Uses for C-E Asbestos Rope are almost endless. Sealing molds, vacuum-pouring equipment (where leakage can ruin an entire billet), sand molds off from pouring ladles, calking joints in large cores which must be segmented.

ATOMIC ENERGY

1000° is standard in the Industry because it withstands an integrated neutron flux of 10^{19} NTV units.

MARINE SERVICE

C-E Asbestos Rope is essential in the Engine Room for general boiler service such as calking, filling and expansion joints, wrapping hard-to-reach steam lines and in emergencies, for quick repair of damaged steam lines.

GENERAL INDUSTRY

Anywhere heat sealing is required, whether heat-treating furnaces, boilers or processing operations.

POWER PLANTS

Between boiler walls and brick-work to allow for expansion and contraction, wrapping steam and exhaust lines where space limitations preclude formed insulation, covering small ducts, calking hard-to-reach spaces, insulating hot pipes passing through fire-walls and bulkheads. It is the standard for use in grooves for door sealing, between boiler sections, expansion joints and in handling hot gases.

ASBESTOS ROPE CAN HANDLE EFFICIENTLY AND ECONOMICALLY

CHEMICAL INDUSTRIES

C-E 1000° rope is successfully used as calking rope for bell and spigot joints in chemical lines. Because it contains no organic components, it is used as yarning rope for water lines. In addition to its heat-resistance, the chemically inert characteristics have made it a "standard" in other chemical-handling operations such as packing for carboy-stoppers, and in Cryogenic services, and other applications where this property is required.

ALUMINUM PLANTS

Anywhere the control of heat and sealing is needed—heat-treating ovens, grooves for door sealing, pouring ladles, vacuum seals on crucibles, and in many other dry heat-sealing applications, C-E Rope is recommended.

Griptex® is a major development in insulation offering a unique combination of characteristics. Special mineral fibers combined with high temperature bonding materials, provide practical advantages. The embossed hard finish surface provides superior handling strength and stronger adhesion of cement finishes. The combination of flexibility and high strength make impaling over welded pins easy, without pre-drilling. The neutral PH of Griptex Block assures against corrosive action. This particularly is important when used in conjunction with aluminum jacketing.

Hydraulic setting cements and castable refractories may be applied directly to Griptex Block without premature loss of mixing water needed for proper hydration.

EFFICIENT

The felted fiber core of Griptex Block offers the maximum buffering action against heat penetration up to 1800°F. The thermal conductivity at 200°F. means temperature is .37 BTU; at 600°F. it is .49 BTU.

APPLICATION METHODS

Griptex may be simply impaled over standard welded pins and secured with speed clips or may be secured in place with metal bands. A sharp knife is the only tool needed to fabricate Griptex to fit irregular shaped equipment. Simply press over bolt heads and projections without additional cutting. Outdoor applications should be weatherproofed.

RECOMMENDED USES

BOILERS

Drums
Headers
Walls
Economizers
Air Preheaters

FURNACES

Heating
Heat Treating
Forging
Annealing
Normalizing

OVENS, KILNS & DRYERS

FIREPROOFING
TANKS & VESSELS

TURBINES & PUMPS

FAN HOUSING
DUCTS & BREECHINGS

SPECIFICATION REFERENCES

High Temperature mineral fiber block insulation shall be GRIPTEX complying with the performance requirements of ASTM C-392, Class 2; Federal Specification HH-1-564 and/or Commercial Standard CS-117 of the U. S. Department of Commerce.

*A C-E trade name.

A SMOOTH, ONE-COAT PLASTIC FINISH INSULATION

Super Finish Stic-Tite provides a smooth, hard, fibrous finish covering for insulating blankets, block, standard Stic-Tite and other insulations. It is a dry, finely ground, pure white mixture of high quality mineral wool and diatomaceous earth which, when mixed with the proper amount of water, is ready for instant use. Like standard Stic-Tite, it forms a spongy mass of dead air cells which stops air infiltration and resultant heat loss.

NO ROUGHING COAT—FINISHES SMOOTH

Super Finish Stic-Tite is applied in a single coat. It can be troweled very smooth for pleasing white appearance. No roughing coat is needed, thereby saving materials and labor. It does not shrink or crack. There is no pointing up or patching necessary after Super Finish Stic-Tite has dried.

USE SUPER FINISH STIC-TITE

WHEN a perfectly smooth, one-coat plastic finish insulation is specified for temperatures up to 1700°F.

WHEN necessary to cover blankets, block or standard Stic-Tite in order to provide a smooth, hard, white surface.

DOESN'T COME OFF

Super Finish Stic-Tite adheres strongly to overhead, vertical and curved surfaces and rounded corners. Once it has dried, the bond is unaffected by vibration, impact or moisture.

CAN BE APPLIED ON COLD OR HOT SURFACES

Because it doesn't shrink during drying, Super Finish Stic-Tite can be applied directly to cold or hot metal or brick surfaces up to 175°F. It dries hard, without shrinking, in about 2 hours. When applied to hotter surfaces, a rough coat of standard Stic-Tite is recommended.

GOES A LONG WAY

Super Finish Stic-Tite gives excellent coverage. One hundred pounds cover an 80 sq. ft. surface with a 1/2" thick layer; 120 sq. ft. with a 3/8" thick layer; or 160 sq. ft. with a 1/4" thick layer. This is by far the lowest cost coverage of any other one-coat finish insulation available.

HOW TO APPLY SUPER FINISH STIC-TITE

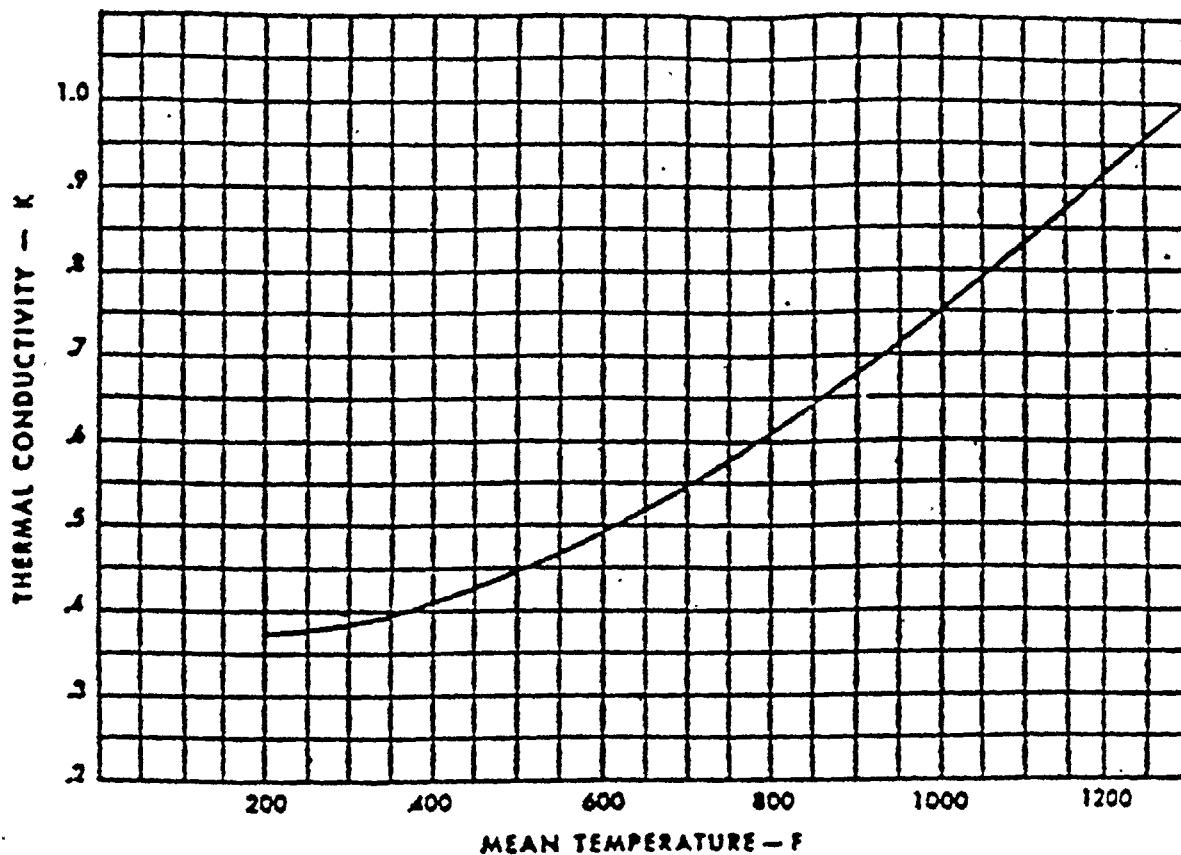
1. Mix Super Finish Stic-Tite thoroughly with 5 to 6 gals. fresh water per 25 lb. bag.
2. Allow the cement mix to soak for one-half hour before using to insure maximum workability.
3. Mix no more than will be applied in 4 hours.
4. If any of the batch has dried out, do not remix it with water or fresh, dry material as the resultant finish will not be hard. Use only fresh batches.
5. For smoothest finish, trowel the cement to at least 3/8" thickness.
6. Where used as a finish coat over an insulating cement roughing coat, be sure the undercoat has set overnight before applying Super Finish Stic-Tite.
7. Where a given area cannot be finished in a continuous application, the joints should be feather-edged.

SUMMARY OF PHYSICAL PROPERTIES

Use Limit
Sintering Temperature
Thermal Conductivity
Compressive Strength
Density
Stability
Resistance to Moisture
Resistance to Corrosion
Handling Characteristics

Up to 1800°F.
2100°F.
See Accompanying Graph
18 psi
1.25 lbs./bd. ft.
Inert - durable
Water-repellent
Non-corrosive
Excellent

THERMAL CONDUCTIVITY — GRIPTEX BLOCK



STANDARD SIZES

| | | |
|--------|---------|---------|
| 6"x12" | 12"x12" | 12"x36" |
| 6"x18" | 12"x18" | 18"x24" |
| 6"x36" | 12"x24" | 24"x36" |

thicknesses range from 1" to 4"—in 1/2" increments.

TEAR TAPE CARTON

Griptex block is packaged in the new . . . easy open . . . tear tape carton. This easy open carton simply zips in half, forming two convenient containers . . . less waste . . . less damage . . . less lost time.

SUPER 711 Insulating Cement is a mixture of high temperature mineral fibers specially processed into resilient wool nodules, combined with asbestos and suitable binders to form a high temperature plastic insulation. Water added according to directions gives a trowelable consistency that is ready for application on equipment to be operated at temperatures up to 1800°F.

WIDE USAGE

SUPER 711 is a versatile material for many types of insulation requirements. Applied over block or blanket insulations, it fills open joints and provides a monolithic surface for whatever type of subsequent finish is specified. Its plastic flexibility permits application directly to regular or curved surfaces - such as valves, fittings, tanks and vessels.

EASY TO APPLY

SUPER 711 has excellent adhesive qualities. Its increased stickability means a better job in less time, from wet to dry. Will not slip or roll under trowel application and may be easily gun applied. This superior workability is a result of fine mineral nodules, special manufacturing methods and quality control.

MAXIMUM COVERAGE - LOW SHRINKAGE

SUPER 711 Insulating Cement assures maximum coverage and low shrinkage. The resilient nodules of mineral fiber do not collapse when mixed with water. See table of Physical Properties for coverage.

RECOMMENDED USES

BOILERS

Drums
Headers
Walls
Economizers
Air Preheaters

FURNACES

Heating
Heat Treating
Forging
Annealing
Normalizing

OVENS, KILNS & DRYERS
VALVES & FITTINGS
TANKS & VESSELS

TURBINES & PUMPS
FAN HOUSINGS
DUCTS & BREECHINGS

SPECIFICATION REFERENCES

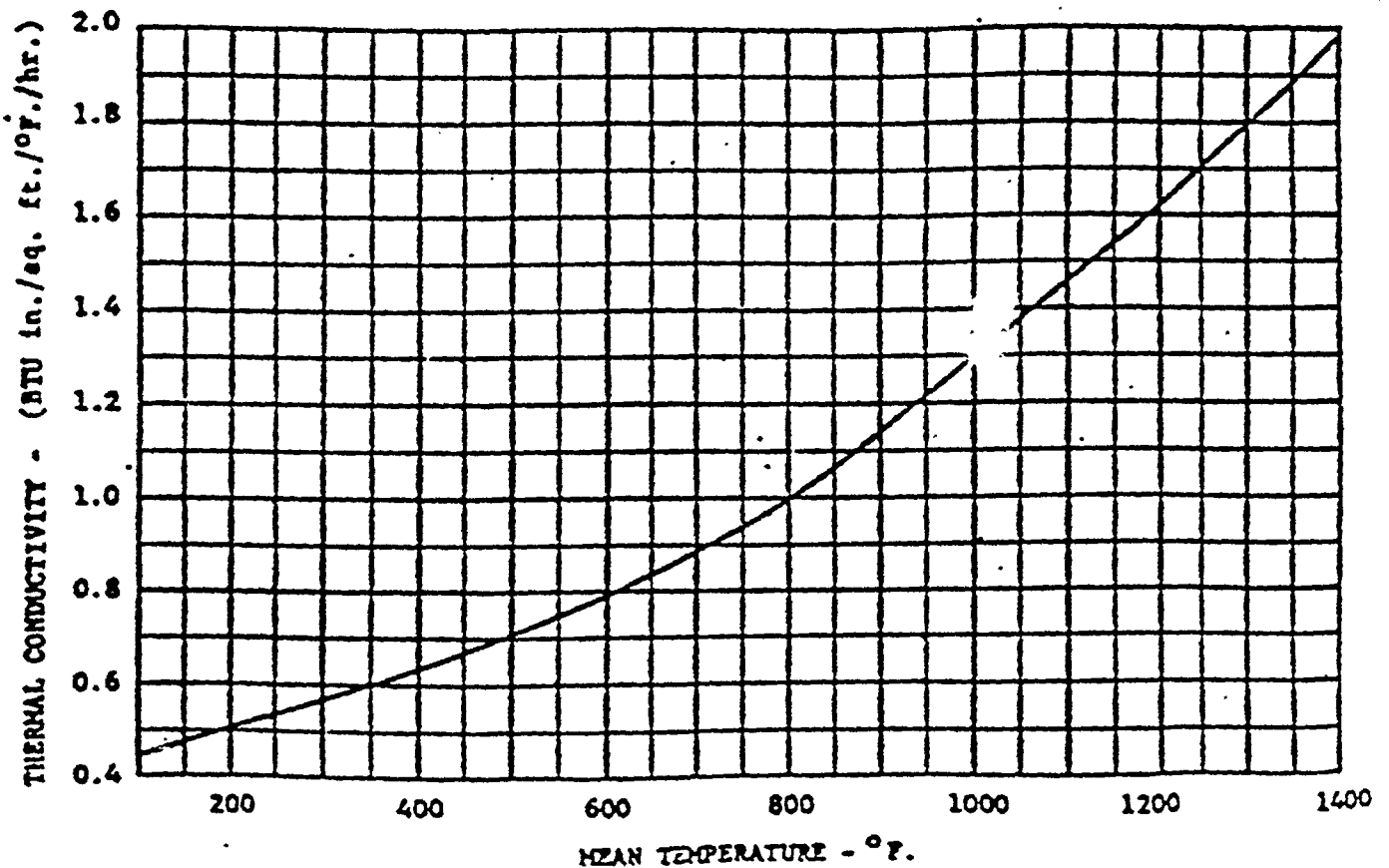
SUPER 711 Mineral Fiber Insulating Cement conforms to ASTM C-195-48; Federal Specification HH-C-168 (Class C); and/or Commercial Standard CS-117 of the U. S. Department of Commerce.

PHYSICAL PROPERTIES OF SUPER 711 INSULATING CEMENT

| | |
|------------------------------------|----------------------------------|
| Service Temperature | 1800°F. |
| Water Ratio | 12 gals. per 50 lbs. bag |
| Dry Coverage | 60 sq. ft. 1" thick per 100 lbs. |
| Material Requirements | 2 lbs. per sq. ft. 1" thick |
| Compressive Strength | 45 psi |
| Density (Applied and Dried) | 24 lbs. per cubic foot |
| Shrinkage (Wet to Dry, by Volume) | 15% |
| Thermal Conductivity | See Chart |
| Reclaimable to | 1000°F. |
| Adhesion to Steel (Wet) | 6 psi |
| Adhesion to Steel (Dry) | 8 psi |
| Corrosion Resistance to Steel | Non-corrosive |
| Shipping Containers (Sewn Closure) | 50 lb. paper bags |

Tabulated values represent typical performance levels of SUPER 711 Insulating Cement - Trowel Grade. SUPER 711 Grade Cement consists of the same basic materials that smaller mineral wool nodules are utilized to facilitate application.

THERMAL CONDUCTIVITY OF SUPER 711 INSULATING CEMENT



REFRACTORIES

A DIVISION OF COMBUSTION ENGINEERING, INC.

UTILITY THERMAL FINISH CEMENT

Utility Thermal Finish Cement is composed of high quality mineral fiber, hydraulic binders, and other suitable materials. Utility combines the flexibility, high temperature resistance, and excellent insulating qualities of uniformly nodulated mineral fiber with the strength, low shrinkage, and smooth finish of hydraulic setting cement. The result is a quick setting, smooth finish, thermal resistant, single layer insulating finish cement. For temperatures up to 1200°F.

QUICK SETTING

Utility Insulating Finish Cement develops a smooth, durable, protective finish within a few hours after application and without the presence of heat. Subsequent drying produces no excessive surface cracking or shrinkage in thickness, and occasional wetting does no damage after hydraulic set. Long drying periods under normal conditions are eliminated. Saves time in applying weatherproofing paint, or other finishes. Jobs are easier to schedule; scaffolding costs are reduced.

ONE COAT APPLICATION

Utility is normally applied in a single layer application. A second layer is needed only when multiple layer thicknesses are specified. Utility is virtually an all-purpose insulating finish cement, designed primarily for use over Griptex block or blanket insulations. Utility is widely used for insulating valves, fittings, heated equipment, and as an anti-sweat insulation for cold water tanks, pumps, etc.

Utility trowels with a good key on block insulation, blanket insulation and insulating cement. It has good wet adhesion to clean steel surfaces, such as valves and fittings.

PLEASING APPEARANCE

Utility dries to a smooth, light reflectant surface which as an interior finish, requires no further treatment. Utility, however, is easily painted if desired. Outdoor applications should be weather protected. Low temperature applications require a vapor seal type finish.

EXCELLENT THERMAL QUALITIES

Utility has a "K" factor of .79 at 600°F. mean temperature. This excellent insulating value as compared to other finish cements is a very desirable advantage when figuring job and operating costs.

PHYSICAL PROPERTIES

| | |
|--|---|
| Service Temperature | 1200°F. |
| Water Ratio (Trowel Application) | 7 gals. per 50 lb. bag |
| Dry Coverage (Trowel Application) | 37 sq. ft. 1/2" thick per 50 lb. bag |
| Setting Time | 2 to 4 hours average conditions |
| Material Requirements (Trowel Application) | 1.3 lbs. per sq. ft. 1/2" thick. |
| Compressive Strength (Air Cured) | 135 psi. |
| Compressive Strength (@ 1200°F.) | 105 psi. |
| Density (Applied and Dried) | 35 lbs. per cubic foot. |
| Shrinkage (Wet to Dry) | Negligible. |
| "K" Factor at 600°F. Mean Temperature | .79 Btu. |
| Corrosion Resistance to Steel | Non-corrosive. |
| Surface Treatment | Easily painted or weatherproofed when required. |
| Shipping Containers (Sewn Closure) | 50 lbs. paper bag. |

MIXING

Utility Thermal Finish Cement should be mixed in a clean mortar box or mixer, using approximately 7 gallons of water per 50 lbs. bag for a good troweling consistency over most blocks, blankets, or insulating cements. Because of the hydraulic binder, Utility should not be mixed with water more than two hours in advance of its application. With cold mixing water (below 60°F.) it remains workable up to 4 hrs.

STORAGE

Store in a cool, dry location until ready to use.

Basically there are three types of asphalt mastics used in the insulation field. They are usually classified as water emulsion, solvent cutback, or chemical dispersion types. The thinning agent or dispersion chemical determines which basic classification will be given a particular product, and dictates the end use of the resultant product.

It is important to know which thinning agent is used to determine the useful qualities of a particularly blended asphalt mastic. The quality and/or type of basic asphalt determines the service temperature of the product involved.

WATER EMULSION ASPHALT MASTICS

The water emulsion type of asphalt weather coating such as Thermal Coat, is normally a blend of petroleum asphalt, asbestos fiber and Bentonite clay, emulsified in water.

Water emulsions are primarily used as a breathing mastic, i.e., if suitable pressure is built up beneath its surface, moisture present will pass through to the atmosphere. However, atmospheric pressure is normally not sufficient to pass moisture back through to the insulation, except, of course, on low temperature work. In this case, a vapor barrier type mastic such as Duriseal is essential.

Summer grade water emulsions, because of the water present, will freeze and should be protected at all times prior to and during application. Alcohol is usually added to Winter grade emulsions. The amount used determines the resistance to freezing of the resultant product. Water emulsions should always be stored and used at temperatures above freezing in any event. A water emulsion that has been frozen is useless and will "alligator" if applied.

Water emulsions usually are suitable only for trowel application and are used wherever a breathing mastic is required. Because they lack the adhesive qualities and resiliency of a cutback type mastic, they should be mechanically bonded to poultry netting except on extremely small surfaces. They should be used in conjunction with a cutback or dispersion type flashing compound. Water emulsions can only be repaired with such types of mastics since they do not bond to themselves. It is imperative that they be repaired as soon as possible if a break in the applied surface should occur to insure service life of the product.

Thermal Coat may be applied at temperatures up to 200°F. and will withstand a maximum temperature of 450°F. after drying.

CAUTION:

Water emulsions are soluble in water and should not be applied if there is a possibility of rain washing the product within twelve hours of the initial application time. Keep Winter Grade above 20°F.

CHEMICAL DISPERSION TYPE ASPHALT MASTICS

Chemical dispersion type asphalt mastics, such as PERMISEAL, incorporate a unique combination of the desirable qualities of the water emulsion and cutback types. They normally consist of petroleum asphalt dispersed in a non-flammable chemical with suitable fillers, blended in one consistency suitable for brush, trowel or spray applications. Containing non-flammable solvents, they are fire-safe for use around open flames, welding torches and similar hazardous job conditions. They have the breathing characteristic of a water emulsion for a period of sixty to ninety days after application. This controlled curing process prevents shrinkage of the surface film and permits trapped moisture to escape. The result is a flexible, blister free, vapor seal type coating of exceptional toughness. A good chemical dispersion product is not affected by freezing and resists most acids and alkalis. However, solubility in water is a factor, depending upon humidity conditions, for a period of eight to twelve hours or longer after application. The anodizing and rust inhibiting agents contained in PERMISEAL make this product excellent for metal protection purposes. PERMISEAL has a useful service temperature up to 300°F. and a maximum of 400°F.

CAUTION:

Dispersion type mastics should be treated the same as water emulsion types, in that they should not be applied if there is a danger of rain washing within eight to twelve hours of the application time. Under proper temperature and humidity conditions, PERMISEAL will be dry to touch in four hours or less.

WEATHER COATINGS AND SEALERS

| CLASSIFICATION | WATER EMULSION | CHEMICAL DISPERSION |
|-----------------------------|--|--|
| | THERMAL COAT | PERMISEAL |
| Application Method | Trowel | Brush-Trowel-Spray |
| Maximum Temperature | 450° F. | 400° F. |
| Application Temperature | 40° F. to 200° F. | 40° F. to 200° F. |
| Coverage - Wet | 3-5 sq. ft., 1/4" thick/gal. | 10 sq. ft., 1/4" thick/gal. |
| Coverage - Dried | 5-6 sq. ft., 1/8" thick/gal. | 10 sq. ft., 1/8" thick/gal. |
| Trowel or Flash Coat | 1/4" thick wet | 1/4" thick wet |
| Brush or Spray Coat | Trowel only | Brush or Spray two 1/8" thick wet coats reinforced as req'd. |
| Reinforcement when required | Poultry netting | Suitable fabric |
| General Use | Breather type weather coating | Weather coating and sealer for insulation, masonry steel, slum. |
| Adhesive Strength | Should be bonded to poultry netting | Excellent after curing on clean dry surface |
| Curing for Best Results | Avoid low temperature and high humidity conditions | Avoid low temperature and high humidity conditions |
| Flame Resistance | Non-flammable | Non-flammable |
| Freeze Resistance | Protect from freezing | Not affected |
| Corrosion Resistance | Not inhibited | Inhibited against rust and corrosion |
| Vapor Resistance | Will breathe | Will breathe during 2-3 month curing period, then becomes vapor-seal |
| Packaged | 5 Gal. 50 Gal.
Steel Container | 5 gal. and 54 gal. (galutic liner) steel container |
| Shipping Weight | 55 lbs. 550 lbs. | 45 lbs. 450 lbs. |

Type T-178, T-278

Duriseal Protective Coatings are special blends of mastics, combined with asbestos fiber and mineral fillers provide an excellent sealing material. Applied over masonry settings, they dry slowly to form a black fire-resistant, air-tight film that is impervious to water exposure, chemical attack and normal abrasion. Duriseal Coatings also are used in conjunction with Detrick Thermal Coat where a flexible flashing compound is required to seal joints around openings, as a caulking compound, and for low temperature stack linings to prevent corrosion.

STANDARD TEMPERATURE GRADES (To 400 F)

For surface temperatures that will not be operated in excess of 350-400°F the Standard Grades are recommended. Standard Type T-178 is made to a semi-viscous, troweling consistency.

HIGH TEMPERATURE GRADES (To 700 F)

When surface temperatures will exceed 400°F during operation, but not in excess of 700°F, Duriseal High Temperature Coatings should be used.

EASY TO APPLY

Duriseal Coatings may be applied over any cool, clean, dry surface, using suitable membrane between spray coats and for patching purposes. Where used, membrane should be lapped 4" at all joints or around patch applications. For ease of application, the best workable temperature range is 50°F to 100°F. Storage temperature should not exceed 100°F. Duriseal Protective Coatings require no thinning.

COVERAGE

Material requirements are estimated on wet coverage of approximately 5 to 6 square feet (1/4" thick) per gallon.

CONTAINERS

Duriseal Protective Coatings are shipped in 5 or 55 gallon steel containers.

CAUTION:

- Surface during application should be above 100°F for indoor applications or 130°F for outdoor applications. Provide adequate ventilation and do not apply in vicinity of open flame, welding arcs, etc.

FOR FIREPROOFING STRUCTURAL STEEL

Pyroscat is a special formulation of high-temperature aggregates, asbestos fibers, hydraulic binder and other materials. These ingredients are factory blended to a uniform dry mixture that is ready for application after mixing with water at the job site. Pyroscat is adapted to application by spraying, casting and trowelling techniques, depending on job conditions.

USES:

Pyroscat provides a lightweight, fire-retardent protective treatment for structural steel columns, beams, tower skirts, LP gas tanks, and other exposed applications in refineries and chemical plants. Pyroscat sets up to a hard, durable sheath capable of withstanding for hours the 2000°F. flame temperatures and high-pressure water streams commonly encountered in industrial fires.

RECOMMENDED THICKNESSES:

Fire-retardent materials are customarily rated in Hours, based on a given thickness used and on the method of application. For example, fire ratings for steel columns represent the number of hours required for heat from a "standard fire" to penetrate the protective treatment as applied, and to increase the steel column temperature to a critical level (1200°F.) The thermal conductivity and heat capacity of a material are of some importance in an ASTM Fire Test. But the ability of the complete treatment to withstand thermal shock without destruction is one of the most significant factors in determining practical fire ratings in industrial installations.

The Pyroscat thicknesses recommended below were determined by physical tests on a series of sprayed, cast and trowelled applications. Tests included direct exposure to 100 psi hose pressure, both before and after subjecting the Pyroscat treatment to severe flame conditions.

THICKNESS OF PYROSCAT

APPROX. FIRE RESISTANCE RATING

| | |
|--------|---------------------|
| 1" | 2 Hours |
| 1-3/4" | 3 Hours (UL-R-3960) |
| 2" | 4 Hours |

ADVANTAGES OF PYROSCAT

SAFER WHILE FIGHTING FIRES . . . Many concrete aggregates and common bricks used for fireproofing purposes will spall and shatter when they are heated and subjected to hose stream. Pyroscat remains virtually unaffected after direct flame exposure and saturation with a 200 psi hose stream.

LIGHTER WEIGHT . . . Pyroscat weighs less than 55 lbs./cu. ft. in place, compared to approximately 150 lbs./cu. ft. for conventional concrete fireproofing. Excess dead weight is eliminated. As usually sprayed or trowelled in a protective sheath, Pyroscat weighs about 1/10 as much as formed concrete - at equivalent thickness per running foot.

*A C-E trade name.

CE REFRATORIES, A DIVISION OF COMBUSTION ENGINEERING, INC.
VALLEY FORGE, PENNSYLVANIA 19481

215-783-0450
TWX-510-660-4837

ADVANTAGES OF PYROSCAT (Continued)

SPRAY, CAST OR TROWEL . . . Pyroscat is specially formulated to permit installation by spray, trowel and casting techniques, depending on local job conditions. No other fireproofing material is as versatile from an application standpoint. Employs conventional supporting materials and placement. Only the one fireproofing material is required - no need for subsequent finishing layers nor heavy mastic coatings.

DURABLE AND WEATHER-RESISTANT . . . Pyroscat develops great strength from its selected high-temperature aggregates and hydraulic-setting binders. It withstands continued cycles of saturated freeze-and-thaw weathering tests.

SUMMARY OF PHYSICAL PROPERTIES

| | |
|---|------------------------------|
| Coverage (Trowelled) | 1.1 cu. ft./50 lb. bag |
| Material Required (Trowel Application) | 45 lbs. per cu. ft. |
| Air-Cured Weight (After Hydration and Drying) | 54.5 lbs. per cu. ft. |
| Compressive Strength - Air-Cured | 1650 psi |
| Compressive Strength After Firing at 1500°F. | 1.5% |
| Lineal Shrinkage - Air Cured | Less than 1% |
| Lineal Shrinkage After Firing at 1500°F. | 1.5% |
| Density After Firing at 1500°F. | 39.1 lbs. per cu. ft. |
| Fusion Temperature | 2200 F |
| Thermal Conductivity (k) at 1000°F., Mean Temp. | 1.50 Btu |
| Setting Time | 4 to 6 hours |
| Mixing Water: | |
| For Spray & Trowel Consistency | 3-1/2 Gal. water/50 lbs. bag |
| For Casting Consistency | 5 Gal. water/50 lbs. bag |

Curing:

Pyroscat is a cementitious material and should be kept moist during the curing period of 72 hours or longer.

BOILER WALL COATING CEMENT**ELIMINATES AIR INFILTRATION****PREVENTS HEAT LEAKAGE****SAVES FUEL****INCREASES BOILER EFFICIENCY**

Air-Check Cement is an asphaltic-asbestos fibre mixture in plastic form for covering the outside of both fire brick and red brick boiler walls. It is also used for pointing up cracks in boiler walls. Its safe, effective limit of usefulness is 350°F.

Air-Check Cement is tough, rubbery, plastic, easy to apply. A 3/16" thick coat troweled over the surface, dries to a thickness of slightly more than 1/8". It remains semi-plastic even though in service for a number of years.

ALL PURPOSE PLASTIC INSULATION

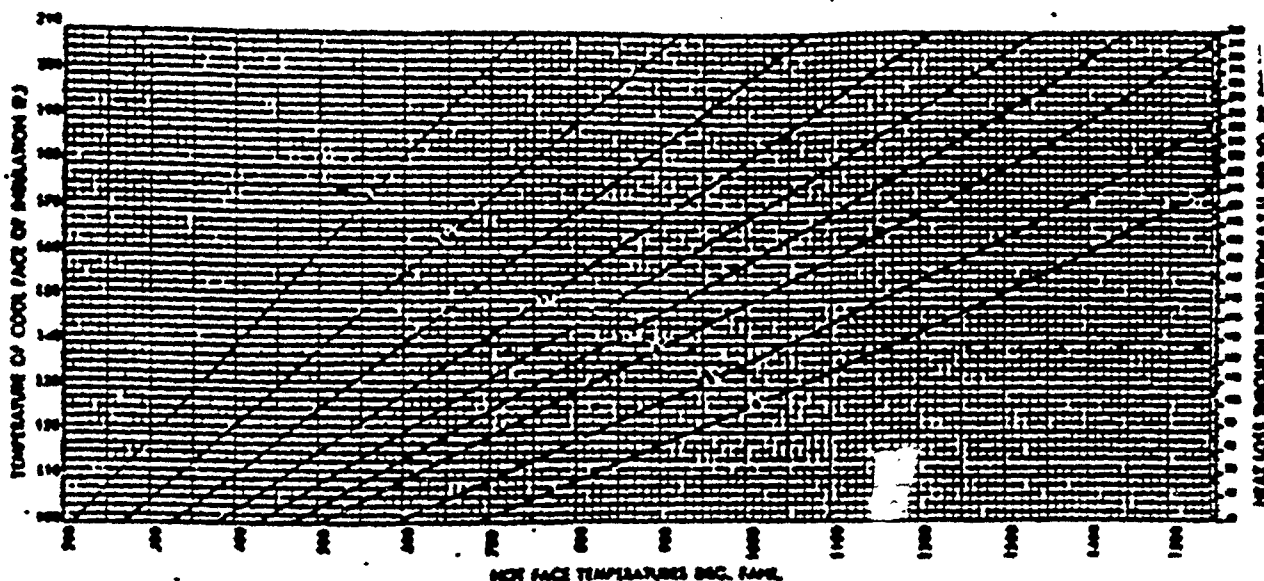
Stic-Tite and Super Stic-Tite plastic insulations are the most versatile insulating materials known. Mixed with water, right on the job, they adhere to any clean surface—and stay on—at all temperatures to 1800° F. They are light, strong and unusually durable.

Both Stic-Tites are a powerful barrier against heat loss. Composed of a special mixture of mineral wool and diatomaceous earth, the applied and dried material forms a spongy mass of billions of dead air cells, uniform in size and well isolated from each other. This stops air infiltration and resultant heat transmission.

HOW TO SELECT THE RIGHT THICKNESS

Estimate the operating temperature of your installation, (hot face). Follow the hot face temperature (bottom of chart) vertically until it intersects the line connecting the cool face (left hand column) or B.T.U. loss (right hand column). Use the amount of Stic-Tite indicated on the curve nearest the point of intersection.

For example, assume operating temperature is 825° F. and a cool face of 139° or 126 B.T.U. loss is desired. Follow the 825° line vertically until it intersects the horizontal 139° and 126 B.T.U. loss lines. The intersection is nearest the 3-1/2" Stic-Tite curve. Therefore, 3-1/2" of Stic-Tite should be used. At the same operating temperature if a cool face of 124° or B.T.U. loss of 96 is desired, the intersection would be nearest the 5" Stic-Tite curve. Therefore, 5" of Stic-Tite should be used.



WHERE STIC-TITE IS USED

| | | | |
|---------------------------------------|---|-------------------|------------------------|
| Air heaters | Elbows | Hot air lines | Steam pumps |
| Burner casings | Flanges | Hot piping | Tanks |
| Boiler, front, side
and rear walls | Feed water heaters | Hot water heaters | Tube doors |
| Breechings | Furnace and Oven;
walls, floors, roofs | Kettles | Uptakes |
| Cookers | Gas generators | Reaction vessels | Valves and fittings |
| Drum heads | Hot air ducts | Regenerator faces | All irregular surfaces |
| | | Steam heaters | |

CAN BE USED ON ALL SURFACES

Stic-Tite adheres strongly and permanently to metal (special inhibitors help prevent rusting of metal surface), tile, brick, insulating block and blankets or other clean surfaces, hot or cold. It can be used in difficult places where other types of insulation are unsuitable—on intricate piping, on elbows and flanges, on slanting vertical or curved surfaces and rounded corners. Stic-Tite provides a monolithic, seamless, jointless covering which can be troweled perfectly smooth for appearance.

Stic-Tite adheres permanently without lifting off or shaking loose even when subjected to severe vibration, abrasion or impact.

STOPS HEAT LOSS

The spongy mass of dead air cells checks air infiltration—prevents heat loss. Since dry Stic-Tite does not shrink or form cracks, the high insulating efficiency is never impaired.

EASY TO APPLY

Stic-Tite, mixed with the proper amount of water, forms an easily workable, plastic mass which can be troweled or safely applied with the bare hands. The usual practice is to apply first a roughing coat over the area to be covered, then trowel smooth around joints, over the surface and elbows, curves, etc.

LARGE COVERAGE

Since Stic-Tite dries with practically no shrinkage (an inch of Stic-Tite applied wet remains practically an inch thick when dry), less is required to provide sufficient insulating thickness. Mixed and applied as directed, 100 lbs. of the material cover 45 sq. ft. with a 1" thick layer.

CAN BE REUSED

If used at temperatures below 900°F., old Stic-Tite can be removed from equipment, crushed, mixed with clean water and reapplied like new Stic-Tite. This makes equipment repairs less costly since the insulation can be saved. Reclaimed Stic-Tite is equal to the new product in insulating efficiency, adhesion and plasticity.

SAVES LABOR AND MATERIALS

Stic-Tite is so easy to apply on all types of regular and irregular surfaces and over other insulations that labor cost is very low. Skilled men are not needed. Since Stic-Tite adheres so strongly, reinforcing wires and other supports are unnecessary when used up to 1-1/2" thick.

CONVENIENT PACKING

Stic-Tite is shipped dry in heavy, lined, dustless paper bags containing 25 lbs. and 50 lbs. each. It does not deteriorate in dry storage—can be kept indefinitely if dampness or wet places are avoided.

HOW TO APPLY

1. Each 50# bag should be mixed with 12 gallons (100 lbs.) of fresh water.
2. After thoroughly mixing, Stic-Tite can be applied immediately, but better results can be obtained by allowing it to soak for at least a half hour or longer.
3. All surfaces to be covered should be free of paint, dust, dirt and grease.
4. Roughing coats can be applied by hand or trowel or combination of hand and trowel.
5. If hot surfaces are to be insulated with Stic-Tite, the material should be spotted in place with a trowel and dragged down to a feather edge. The spotted material will dry quickly and then a rough coat about 1" thick can be applied over and between the spots.
6. On cold surfaces for covering up to 1-1/2" thick, after being mixed according to directions on the bag, Stic-Tite should be applied by spreading it over the surface to as even a thickness as possible. After the rough coat has dried out, a finish coat up to 1/2" thick can be applied over the rough surface and finished with a trowel to a smooth, attractive finish. Stic-Tite can be used up to 1-1/2" thick without reinforcing.
7. For covering over 1-1/2" thick, apply a rough coat about 1" thick. When rough coat is dry apply another 1" coat and continue until desired thickness is obtained. Each coat should be dried before additional coats are applied. Prior to application of finish coat, we recommend reinforcing with #20 gauge 2" mesh chicken wire.
8. Finish coats should be applied from 1/4" to 1/2" thick, troweled to a smooth, hard finish. Where desired, Stic-Tite finish can be painted. Best results are obtained by painting with a glue sizing and paint over this.
9. If more Stic-Tite is mixed than can be used, the left over material can be laid aside and remixed with water at a later date when it is required.

Dry Coverage (Trowel Application)

Setting Time

Material Requirements (Trowel Application)

Compressive Strength (Air Cured)

Compressive Strength (@1200°F)

Abrasion Factor (Air Cured)

Density (Applied and Dried)

Shrinkage (Wet to Dry)

"K" Factor at 600°F. Mean Temperature

Corrosion Resistance to Steel

Surface Treatment

Shipping Containers (Sewn Closure)

7 gals. per 50 lb. bag.

37 sq. ft. 1/2" thick per 50 lb. bag

2 to 4 hrs. average conditions.

1.3 lbs. per sq. ft. 1/2" thick.

135 psi.

105 psi.

98 seconds (MHD Method 102).

35 lbs. per cubic foot.

Negligible.

.79 Btu.

Non-corrosive.

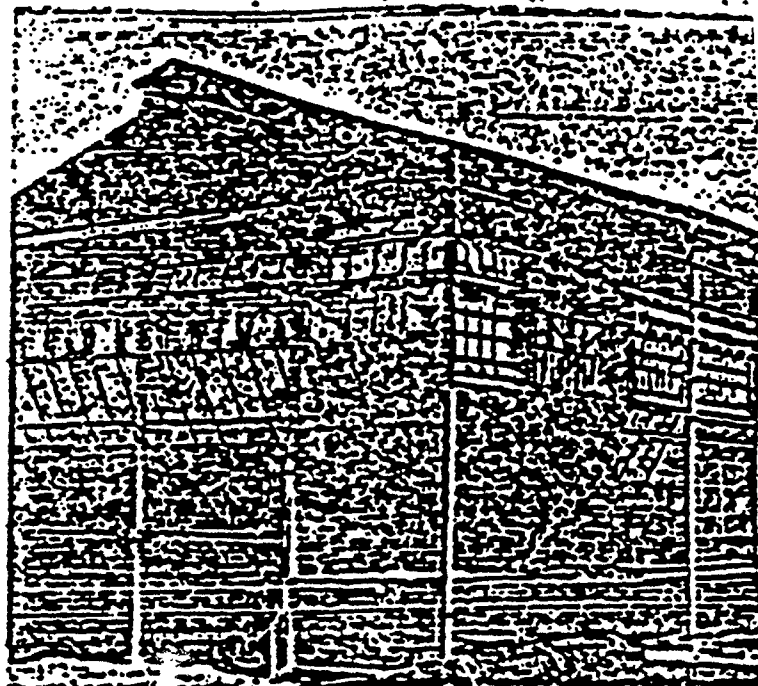
Easily painted or weatherproofed

when required.

50 lb. paper bag.

MIXING

Utility Thermal Finish Cement should be mixed in a clean mortar box or mixer, using approximately 7 gallons of water per 50 lb. bag for a good troweling consistency over most blocks, blankets, or insulating cements. Because of the hydraulic binder, Utility should not be mixed with water more than two hours in advance of its application. With cold mixing water (below 60°F), it remains workable up to 4 hrs.



Utility Gunned on Balloon Flue.

STORAGE

Store in a cool, dry location until ready to use.

REFRACTORY & INSULATION CORPORATION

625 ILLINOIS AVE.
AURORA, ILLINOIS

PORT KENNEDY
PENNSYLVANIA

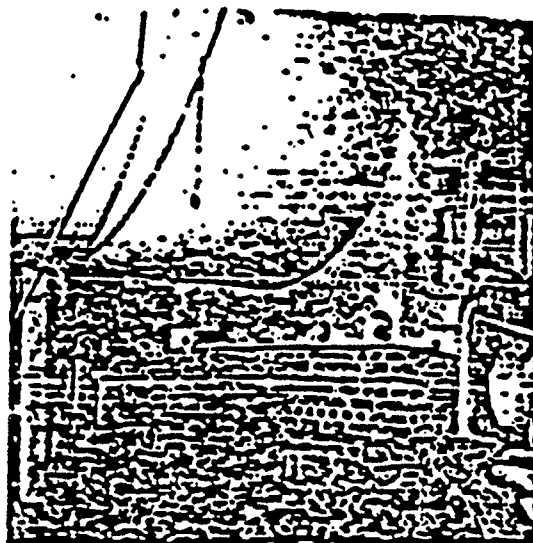


UTILITY THERMAL FINISH CEMENT

Utility Thermal Finish Cement is composed of high quality mineral fiber, hydraulic binders, and other suitable materials. Utility combines the flexibility, high temperature resistance, and excellent insulating qualities of uniformly nodulated mineral fiber with the strength, low shrinkage, and smooth finish of hydraulic setting cement. The result is a quick setting, smooth finish, thermal resistant, single layer insulating finish cement. For temperatures up to 1200°F.

QUICK SETTING

Utility Insulating Finish Cement develops a smooth, durable, protective finish within a few hours after application and without the presence of heat. Subsequent drying produces no excessive surface cracking or shrinkage in thickness, and occasional wetting does no damage after hydraulic set. Long drying periods under normal conditions are eliminated. Saves time in applying weatherproofing, paint, or other finishes. Jobs are easier to schedule; scaffolding costs are reduced.



ONE COAT APPLICATION

Utility is normally applied in a single layer application. A second layer is needed only when multiple layer thicknesses are specified. Utility is virtually an all-purpose insulating finish cement, designed primarily for use over Griptex block or blanket insulations. Utility is widely used for insulating valves, fittings, heated equipment, and as an anti-sweat insulation for cold water tanks, pumps, etc.

Utility trowels with a good key on block insulation; blanket insulation and insulating cement. It has good wet adhesion to clean steel surfaces, such as valves and fittings.

PLEASING APPEARANCE

Utility dries to a smooth, light reflectant surface which as an interior finish, requires no further treatment. Utility, however, is easily painted if desired. Outdoor applications should be weather protected. Low temperature applications require a vapor seal type finish.

EXCELLENT THERMAL QUALITIES

Utility has a "K" factor of .79 at 600°F. mean temperature. This excellent insulating value as compared to other finish cements is a very desirable advantage when figuring job and operating costs.



MANUFACTURING & INSULATION CORPORATION

SUPER 711 INSULATING CEMENT

Trowel or Gun Grade

SUPER 711 Insulating Cement is a mixture of high temperature mineral fibers specially processed into resilient wool nodules, combined with asbestos and suitable binders to form a high temperature plastic insulation. Water added according to directions gives a trowelable consistency that is ready for application on equipment to be operated at temperatures up to 1800°F.

WIDE USAGE

SUPER 711 is a versatile material for many types of insulation requirements. Applied over block or blanket insulations, it fills open joints and provides a monolithic surface for whatever type of subsequent finish is specified. Its plastic flexibility permits application directly to regular or curved surfaces -- such as valves, fittings, tanks and vessels.



EASY TO APPLY

SUPER 711 has excellent adhesive qualities. Its increased stickability means a better job in less time, from wet to dry. Will not slip or roll under trowel application and may be easily gun applied. This superior workability is a result of fine mineral nodules, special manufacturing methods and quality control.

MAXIMUM COVERAGE - LOW SHRINKAGE

SUPER 711 Insulating Cement assures maximum coverage and low shrinkage. The resilient nodules of mineral fiber do not collapse when mixed with water. See table of Physical Properties for coverage.

RECOMMENDED USES

BOILERS

Drums
Headers
Walls
Economizers
Air Preheaters

FURNACES

Heating
Heat Treating
Forging
Annealing
Normalizing

OVENS, KILNS & DRYERS
VALVES & FITTINGS
TANKS & VESSELS

TURBINES & PUMPS
FAN HOUSINGS
DUCTS & BREECHINGS

SPECIFICATION REFERENCES

SUPER 711 Mineral Fiber Insulating Cement conforms to ASTM C-195-48; Federal Specification HH-C-168 (Class C); and/or Commercial Standard CS-117 of the U.S. Department of Commerce.

May, 1964

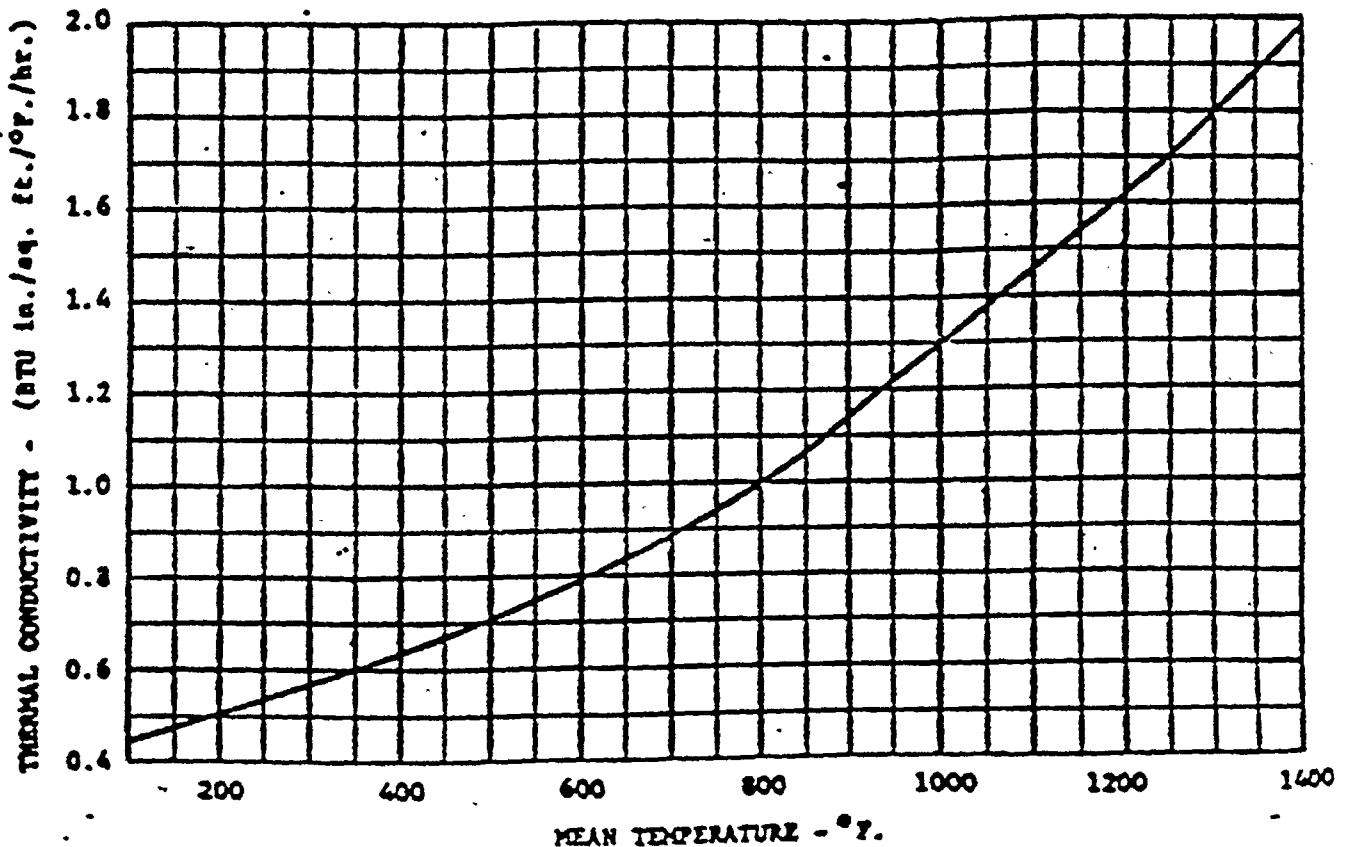
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PROPERTIES OF SUPER 711 INSULATING CEMENT

| | |
|------------------------------------|----------------------------------|
| Service Temperature | 1800°F. |
| Water Ratio | 12 gals. per 50 lb. bag |
| Dry Coverage | 50 sq. ft. 1" thick per 100 lbs. |
| Material Requirements | 2 lbs. per sq. ft. 1" thick |
| Compressive Strength | 45 psi |
| Density (Applied and Dried) | 24 lbs. per cubic foot |
| Shrinkage (Wet to Dry, by Volume) | 15% |
| Thermal Conductivity | See Chart |
| Reclaimable to | 1000°F. |
| Adhesion to Steel (Wet) | 6 psi |
| Adhesion to Steel (Dry) | 9 psi |
| Corrosion Resistance to Steel | Non-corrosive |
| Shipping Containers (Sewn Closure) | 50 lb. paper bags |

Tabulated values represent typical performance levels of SUPER 711 Insulating Cement - Trowel Grade. SUPER 711 "Gun" Grade Cement consists of the same basic materials that smaller mineral wool nodules are utilized to facilitate application.

THE THERMAL CONDUCTIVITY OF SUPER 711 INSULATING CEMENT



REFRACTORY & INSULATION CORPORATION
 625 ILLINOIS AVE.
 AURORA, ILLINOIS

PORT KENNEDY
 PENNSYLVANIA



REFRACTORY & INSULATION CORPORATION

PYROSCAT® FIREPROOFING CEMENT

Application Details for Steel Columns and Beams

A. Surface Preparation

1. Remove dirt, scale or loose paint from the surface to be treated, then apply rust preventative paint or coating when specified.
2. For trowel applications to columns and beams, form 3/8" rib lath (or paper-backed lath) to box-in the member. Apply rib lath with ribs turned in and spanned from flange to flange. On members 14" and larger, first weld 1/4" rods across the flanges approximately 12" to 18" on centers to provide additional support for the lath. Secure the lath in place with wire or bands. For gun application, use 2 x 2 #16 paper-backed lath such as Steeltex.
 - a) Provide 2" firestops on columns at 8' to 12' intervals (or as otherwise specified). Form the metal lath into a horizontal shelf extending to and supported at the web. Apply Pyroscat 2" thick in the opening. Provide similar stops at the top elevation of the fireproofing.
 - b) Plasterer's corner bead may be wired to the metal lath, forming and supporting it to attain the total Pyroscat thickness specified. Corner bead shall be of the type having open-mesh legs to facilitate complete filling of the corners. The corner bead may be spaced the proper distance from the flanges by means of corner clips, rods, studs; or Pyroscat may be spotted-in to space the corner bead at specified fireproofing thickness.

B. Application of Pyroscat

1. Mix Pyroscat to recommended consistency with clean, fresh water, before application. Refer to mixing instructions on the bag and use no more water than called for. Mix Pyroscat to a homogeneous plastic mass; avoid over-mixing, particularly with mechanical mixers.
 - a) Apply Pyroscat well into the metal lath, installing approximately 1/2 the total thickness in the scratch coat. Leave the first coat rough or scratch the surface.
 - b) On the underside of beams, the application may be in three coats. Apply a thin scratch coat first to improve adhesion.
 - c) If corner bead was not applied previously, wire it in place when the scratch coat has set.
2. Let the scratch coat harden until well set (4 to 6 hours or longer), then double-back with the finish coat. Apply it flush with the corner bead. Sponge-float the surface to a textured finish or as otherwise specified.
 - a) When application of the finish coat is deferred over night or longer, wet down the scratch coat thoroughly before proceeding with the finish coat.

(28)

1. Pyroscat is a cementitious material; to develop its strength, keep it moist for 72 hours or longer. Depending on atmospheric conditions when applied, the required water retention may be accomplished with wet burlap, periodic water spray or a hydrostatic (resin-base) sealer.
2. Following the curing period and when visual moisture has dried, apply a suitable flashing material at all intersecting joints and exposed ends of members treated (Duriseal T-178 Coating).
3. Pyroscat may be painted with (1) masonry paint, (2) two coats of asphalt-base aluminum paint, or (3) other finishes as specified for operating conditions involved. (Note: When conventional masonry paint of the hydrating-type is used, wet down the Pyroscat before painting to insure proper hydration).

ALTERNATES FOR TOWER SKIRTS (VERTICAL)

- A-2 Attach a layer of 1" x 1" square mesh reinforcing, positioned 1" away from the skirt, i.e., at the approximate center of the fireproofing thickness specified.
- a) Trowel or gun Pyroscat solidly through openings in the square mesh, bringing the scratch coat out approximately 1" thick. Start at the bottom of the skirt and work upward. Leave the surface rough, or scratch it when trowel applied.
 - b) Screed strips may be attached temporarily over the square mesh reinforcing, to accurately gauge the thickness of the second layer.
 - c) When fireproofing is applied to skirts of heated vessels while they are in operation, heat conducted to the skirt may prematurely dry the initial layer of Pyroscat. Wet the first coat thoroughly, particularly at the top, before applying the final layer.

ALTERNATES FOR HORIZONTAL TANKS

- A-2 Bolster bars are preferred for anchorage of the reinforcing mesh. The bolster bar selected, would have legs extending from the tank surface approximately one-half of the total thickness of Pyroscat to be applied. Form the bolster bars to fit the tank curvature, then weld or wire in place circumferentially approximately 3' on centers. Wire the reinforcing mesh to the bolster bars.
- C-3 When tanks so fireproofed are to be operated below ambient temperature, suitable vapor-sealing treatment is recommended after the Pyroscat has been cured, dried and flashed.

REFRACTORY & INSULATION CORPORATION

625 ILLINOIS AVE.
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INSULATION CORPORATION PYROSCAT For Fireproofing Structural Steel

Pyroscat is a special formulation of high-temperature aggregates, asbestos fibers, hydraulic binder and other materials. These ingredients are factory blended to a uniform dry mixture that is ready for application after mixing with water at the job site. Pyroscat is adapted to application by spraying, casting and trowelling techniques, depending on job conditions.

USES:

Pyroscat provides a lightweight, fire-retardent protective treatment for structural steel columns, beams, tower skirts, LP gas tanks, and other exposed applications in refineries and chemical plants. Pyroscat sets up to a hard, durable sheath capable of withstanding for hours the 2000°F. flame temperatures and high-pressure water streams commonly encountered in industrial fires.

RECOMMENDED THICKNESSES:

Fire-retardent materials are customarily rated in Hours, based on a given thickness used and on the method of application. For example, fire ratings for steel columns represent the number of hours required for heat from a "standard fire" to penetrate the protective treatment as applied, and to increase the steel column temperature to a critical level (1200°F). The thermal conductivity and heat capacity of a material are of some importance in an ASTM Fire Test. But the ability of the complete treatment to withstand thermal shock without destruction is one of the most significant factors in determining practical fire ratings in industrial installations.

The Pyroscat thicknesses recommended below were determined by physical tests on a series of sprayed, cast and trowelled applications. Tests included direct exposure to 100 psi hose pressure, both before and after subjecting the Pyroscat treatment to severe flame conditions.

| <u>Thickness of Pyroscat</u> | <u>Approx. Fire Resistance Rating</u> |
|------------------------------|---------------------------------------|
| 1" | 2 Hours |
| 1-3/4" | 3 Hours - (UL-R-3960) |
| 2" | 4 Hours |

38 a.

ADVANTAGES OF PYROSCAT

Safer While Fighting Fires Many concrete aggregates and common bricks used for fireproofing purposes will spall and shatter when they are heated and subjected to a hose stream. Pyroscat remains virtually unaffected after direct flame exposure and saturation with a 100 psi hose stream.

May, 1964 S

FOR SALE
PEN. An R & I trade name.

Lighter Weight....Pyroscat weighs less than 55 lbs./cu. ft. in place, compared to approximately 150 lbs./cu. ft. for conventional concrete fireproofing. Excess dead weight is eliminated. As usually sprayed or trowelled in a protective sheath, Pyroscat weighs about 1/10 as much as formed concrete - at equivalent thickness per running foot.

Spray, Cast or Trowel.... Pyroscat is specially formulated to permit installation by spray, trowel and casting techniques, depending on local job conditions. No other fireproofing material is as versatile from an application standpoint. Employs conventional supporting materials and placement. Only the one fireproofing material is required - no need for subsequent finishing layers nor heavy mastic coatings.

Durable and Weather-Resistant....Pyroscat develops great strength from its selected high-temperature aggregates and hydraulic-setting binders. It withstands continued cycles of saturated freeze-and-thaw weathering tests.

SUMMARY OF PHYSICAL PROPERTIES:

| | |
|--|-----------------------------|
| Coverage (Trowelled) | 1.1 cu. ft./50 lb. bag |
| Material Required (Trowel Application) | 45 lbs. per cu. ft. |
| Air-Cured Weight (After Hydration and Drying) | 54.5 lbs. per cu. ft. |
| Compressive Strength - Air-Cured | 1650 psi |
| Compressive Strength After Firing at 1500°F. | 1.5% |
| Lineal Shrinkage - Air Cured | Less than 1% |
| Lineal Shrinkage After Firing at 1500°F. | 1.5% |
| Density After Firing at 1500°F. | 49.1 lbs. per cu. ft. |
| Fusion Temperature | 2200 F |
| Thermal Conductivity (k) at 1000°F. Mean Temp. | 1.50 Btu |
| Setting Time | 4 to 6 hours |
| Mixing Water: | |
| For Spray & Trowel Consistency | 3-1/2 Gal. water/50 lb. bag |
| For Casting Consistency | 5 Gal. water/50 lb. bag |

Curing:

Pyroscat is a cementitious material and should be kept moist during the curing period of 72 hours or longer.

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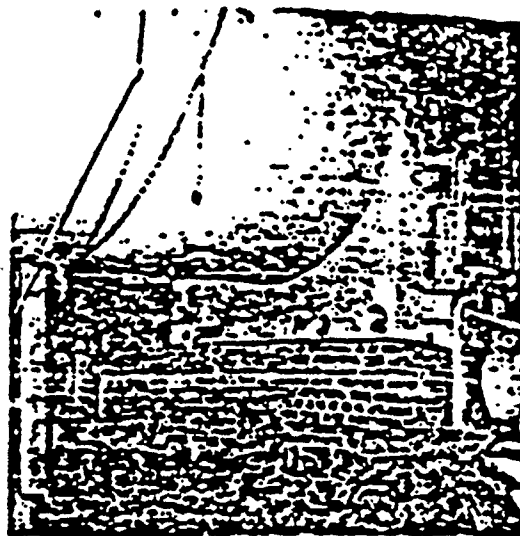


UTILITY THERMAL FINISH CEMENT

Utility Thermal Finish Cement is composed of high quality mineral fiber, hydraulic binders, and other suitable materials. Utility combines the flexibility, high temperature resistance, and excellent insulating qualities of uniformly nodulated mineral fiber with the strength, low shrinkage, and smooth finish of hydraulic setting cement. The result is a quick setting, smooth finish, thermal resistant, single layer insulating finish cement. For temperatures up to 1200°F.

QUICK SETTING

Utility Insulating Finish Cement develops a smooth, durable, protective finish within a few hours after application and without the presence of heat. Subsequent drying produces no excessive surface cracking or shrinkage in thickness, and occasional wetting does no damage after hydraulic set. Long drying periods under normal conditions are eliminated. Saves time in applying weatherproofing, paint, or other finishes. Jobs are easier to schedule; scaffolding costs are reduced.



ONE COAT APPLICATION

Utility is normally applied in a single layer application. A second layer is needed only when multiple layer thicknesses are specified. Utility is virtually an all-purpose insulating finish cement, designed primarily for use over Griptex block or blanket insulations. Utility is widely used for insulating valves, fittings, heated equipment, and as an anti-sweat insulation for cold water tanks, pumps, etc.

Utility trowels with a good key on block insulation, blanket insulation and insulating cement. It has good wet adhesion to clean steel surfaces, such as valves and fittings.

PLEASING APPEARANCE

Utility dries to a smooth, light reflectant surface which as an interior finish, requires no further treatment. Utility, however, is easily painted if desired. Outdoor applications should be weather protected. Low temperature applications require a vapor seal type finish.

EXCELLENT THERMAL QUALITIES

Utility has a "K" factor of .79 at 600°F. mean temperature. This excellent insulating value as compared to other finish cements is a very desirable advantage when figuring job and operating costs.

May, 1964

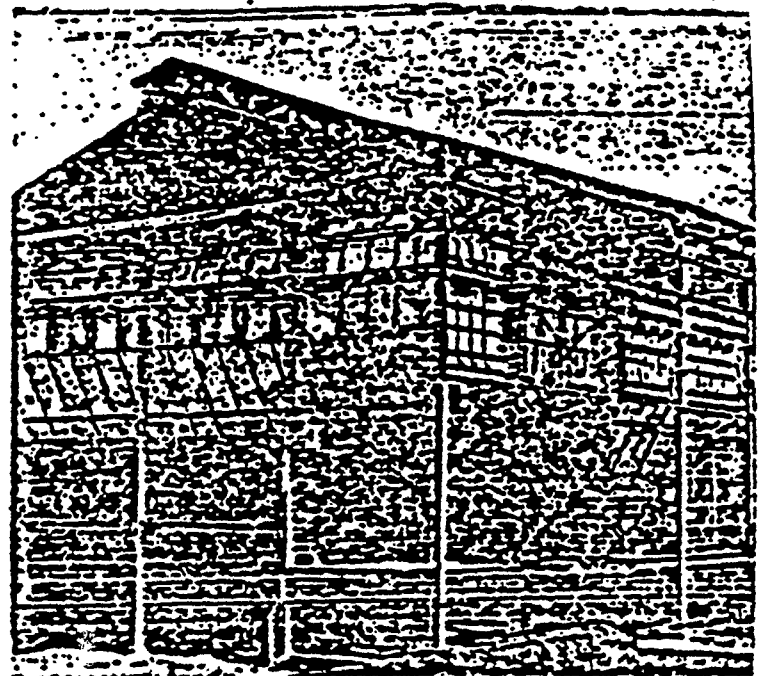
W. J. KENNEDY
J. L. JYLY

Water Ratio (Trowel Application)
 Dry Coverage (Trowel Application)
 Setting Time
 Material Requirements (Trowel Application)
 Compressive Strength (Air Cured)
 Compressive Strength (@1200°F)
 Abrasion Factor (Air Cured)
 Density (Applied and Dried)
 Shrinkage (Wet to Dry)
 "K" Factor at 600°F. Mean Temperature
 Corrosion Resistance to Steel
 Surface Treatment
 Shipping Containers (Sewn Closure)

1200°F.
 7 gals. per 50 lb. bag.
 37 sq. ft. 1/2" thick per 50 lb. bag
 2 to 4 hrs. average conditions.
 1.3 lbs. per sq. ft. 1/2" thick.
 135 psi.
 105 psi.
 98 seconds (MHD Method 102).
 35 lbs. per cubic foot.
 Negligible.
 .79 Btu.
 Non-corrosive.
 Easily painted or weatherproofed
 when required.
 50 lb. paper bag.

MIXING

Utility Thermal Finish Cement should be mixed in a clean mortar box or mixer, using approximately 7 gallons of water per 50 lb. bag for a good troweling consistency over most blocks, blankets, or insulating cements. Because of the hydraulic binder, Utility should not be mixed with water more than two hours in advance of its application. With cold mixing water (below 60°F), it remains workable up to 4 hrs.



Utility Gunned on Balloon Flue.

STORAGE

Store in a cool, dry location until ready to use.

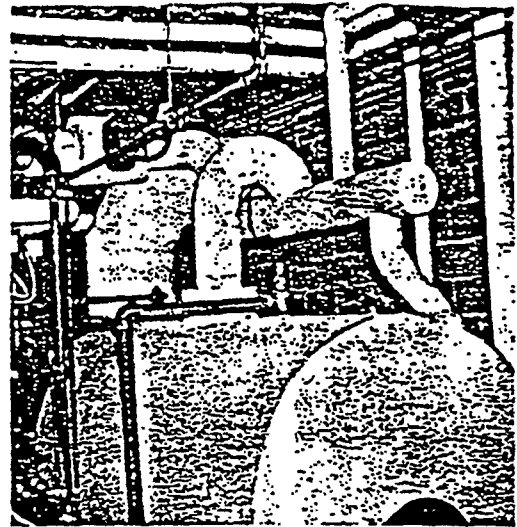
REFRACTORY & INSULATION CORPORATION
 625 ILLINOIS AVE.
 AURORA, ILLINOIS

PORT KENNEDY
 PENNSYLVANIA



HILITE INSULATING & FINISHING CEMENT

Hilite Insulating & Finishing Cement is composed of fine nodule high temperature mineral fiber, hydraulic binders, and other suitable ingredients. The result is a quick setting, smooth finish, thermal resistant and flexible one coat insulating and finishing cement. Hilite successfully combines the excellent low shrinkage, smooth finish and wet strength features of a one coat-type insulating finish cement, and the flexibility, high temperature resistance and thermal qualities of mineral fiber insulating cements. Hilite is designed for use at temperatures up to 1400°F.



QUICK SETTING

Hilite Insulating & Finishing Cement develops a smooth, durable, protective finish within a few hours after application and without the presence of heat. Subsequent drying produces no excessive surface cracking or shrinkage in thickness, and occasional wetting does no damage after hydraulic set. Long drying periods under normal conditions are eliminated. Saves time in applying weatherproofing, paint, or other finishes. Jobs are easier to schedule; scaffolding costs are reduced.

ONE COAT APPLICATION

Hilite is normally applied in a single layer application. A second layer is needed only when multiple layer thicknesses are specified. Hilite is virtually an all-purpose insulating and finishing cement, designed primarily for use over Griptex block or blanket insulations. Hilite is especially suited for application over calcium silicate or 85% magnesia insulation products. The high water absorption of these products causes ordinary one coat cements to lose the water necessary for hydration. Hilite effectively resists this tendency. Hilite is widely used for insulating valves, fittings, heated equipment, pumps, etc.

Hilite trowels with a good key on block insulation, blanket insulation and insulating cement. It has good wet adhesion to clean steel surfaces, such as valves and fittings.

PLEASING APPEARANCE

Hilite dries to a smooth, light reflectant surface which as an interior finish, requires no further treatment. Hilite, however, is easily painted if desired. Outdoor applications should be weather protected. Low temperature applications require a vapor seal type finish.

Hilite has a "K" factor of .78 at 600°F. Mean Temperature. This excellent insulating value is a very desirable advantage when figuring job and operating costs.

PHYSICAL PROPERTIES

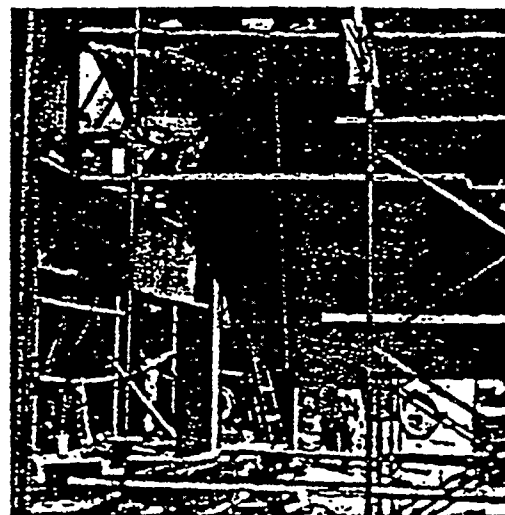
| | |
|---------------------------------------|--|
| Service Temperature | 1400°F. |
| Water Ratio (Trowel Application) | 11 gals. per 50 lb. bag |
| Dry Coverage (Trowel Application) | 43 sq. ft. 1/2" thick per 50 lb. bag |
| Setting Time | 2 to 4 hours dependent on atmospheric conditions |
| Material Requirements | 1.1 lbs. per sq. ft. 1/2" thick |
| Compressive Strength (5% Deformation) | 41 psi |
| Density (Applied and Dried) | 27 lbs. per cu. ft. |
| Shrinkage (Wet to Dry) | Less than 2% |
| Adhesion to Steel | Good |
| "K" Factor at 600°F. Mean Temperature | .78 |
| Corrosion Resistance to Steel | Non-corrosive |
| Surface Treatment | Easily painted or weatherproofed when required |
| Water Resistance | Withstands repeated wettings |
| Shipping Container | 50 lb. paper bag |

MIXING

Hilite Insulating & Finishing Cement should be mixed in a clean mortar box or mixer using approximately 11 gals. per 50 lb. bag for a good troweling consistency over blocks and blankets. Because of the hydraulic binder, Hilite should not be mixed with water more than two hours in advance of its application. With cold mixing water (below 60°F) it remains workable up to four hours.

STORAGE

Store in a cool, dry location until ready to use.



REFRACTORY & INSULATION CORPORATION
625 ILLINOIS AVE.
AURORA, ILLINOIS

PORT KENNEDY
PENNSYLVANIA

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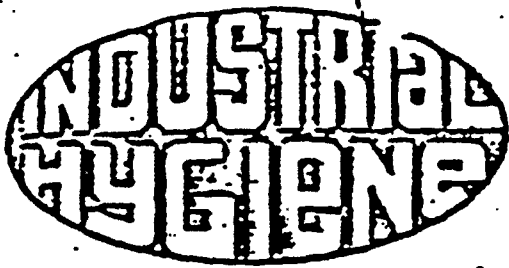


EXHIBIT D MONTHLY BULLETIN

INDUSTRIAL HYGIENE BULLETIN

NUMBER 16 - MARCH 1972

PROPOSED STANDARD FOR ASBESTOS EXPOSURE

STANDARD

Five (5) fibers per milliliter greater than five (5) microns in length for an eight-hour time weighted average.

For unprotected workers - Ten (10) fibers per milliliter up to 15 minutes in an hour for up to 5 hours during an eight-hour work day.

ASBESTOS EXPOSURE

Exposure to asbestos predominates in fabrication plants, grinding, mill cement and insulating material asbestos board. A prolonged inhalation between 5 and 50 microns in diameter known as Asbestosis. It is the elimination of asbestos fibers, coated tissues. The continuation of a long period of time, 10 to 20 years, which causes a severe respiratory standard in terms of 5 fibers/cubic foot, 140,000 fibers/cubic foot. It is received over an eight-hour period, a worker inhaling 15 million fibers.

CONTROL MEASURES

Engineering methods such as enclosure, vacuum sweeping and local exhaust ventilation where feasible. The use of approved Respiratory Protection and Personal Protective Clothing where controls are not feasible.

SAMPLING AND ANALYSIS

Use of a Personal Sampling Pump with a millipore filter (37mm, 0.8 micron pore size) used, open face during sampling at a rate of 2 liters/minute.

A 15 minute sampling period should be used for evaluating an Excursion Limit. For evaluating a eight-hour work period, several samples of up to 4 hours duration should be taken.

MEDICAL SURVEILLANCE

A Medical Surveillance Program should include the following:

1. Periodic measurements of pulmonary function (Forced Vital Capacity - FVC)
2. Forced Expiratory Volume (FEV)

Integromograms (Every 2 years)

Smoking Habits

previous known exposures to asbestos

present and Medical Examinations on
at the time of employment of asbestos-exposed

IG

must maintain records of personal and
monitoring and of medical examinations
must be maintained for a period of
available for inspection.

LABELING

A recommended warning label for asbestos is shown in figure on reverse side. The numerical designations indicate the following:

4 = Health Hazard (color code - blue)

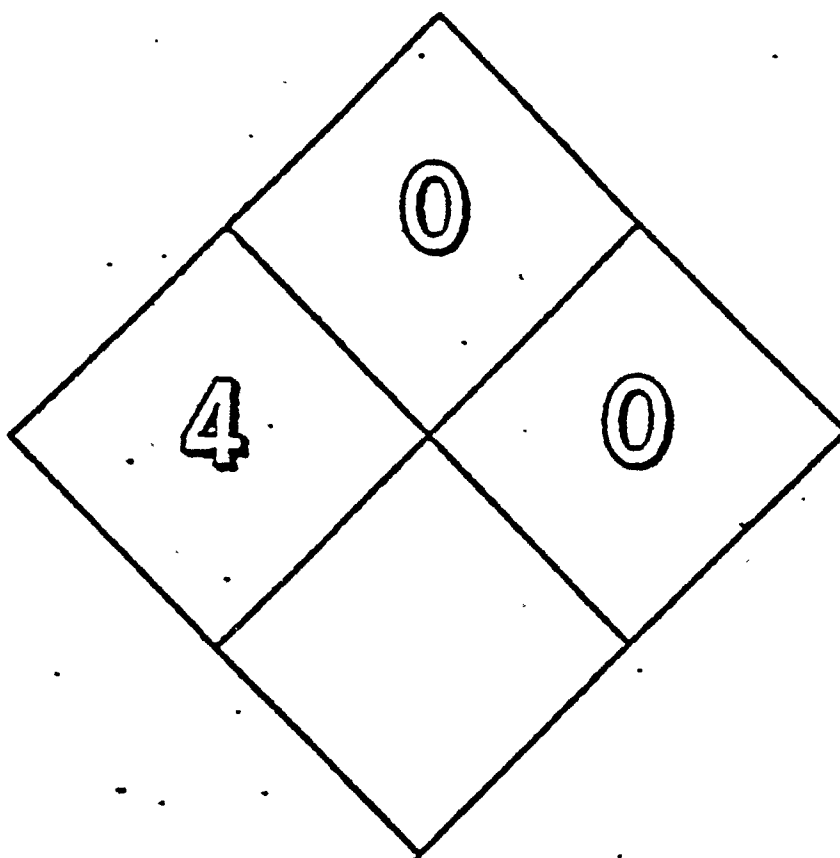
Inhalation may cause asbestosis, pleural or peritoneal mesothelioma, or lung cancer.

D = Fire Hazard (color code - red)

Asbestos is nonflammable and has negligible vapor pressure, volatility, flash point and explosive limits.

CE
Cmy.
D

ASBESTOS



HARMFUL: May Cause Delayed Lung Injury
(Asbestosis, Lung Cancer).

DO NOT BREATHE DUST

Use only with adequate ventilation and approved
respiratory protective devices.

E

CE.

any.

(E)

EXHIBIT

E