8a
Uns

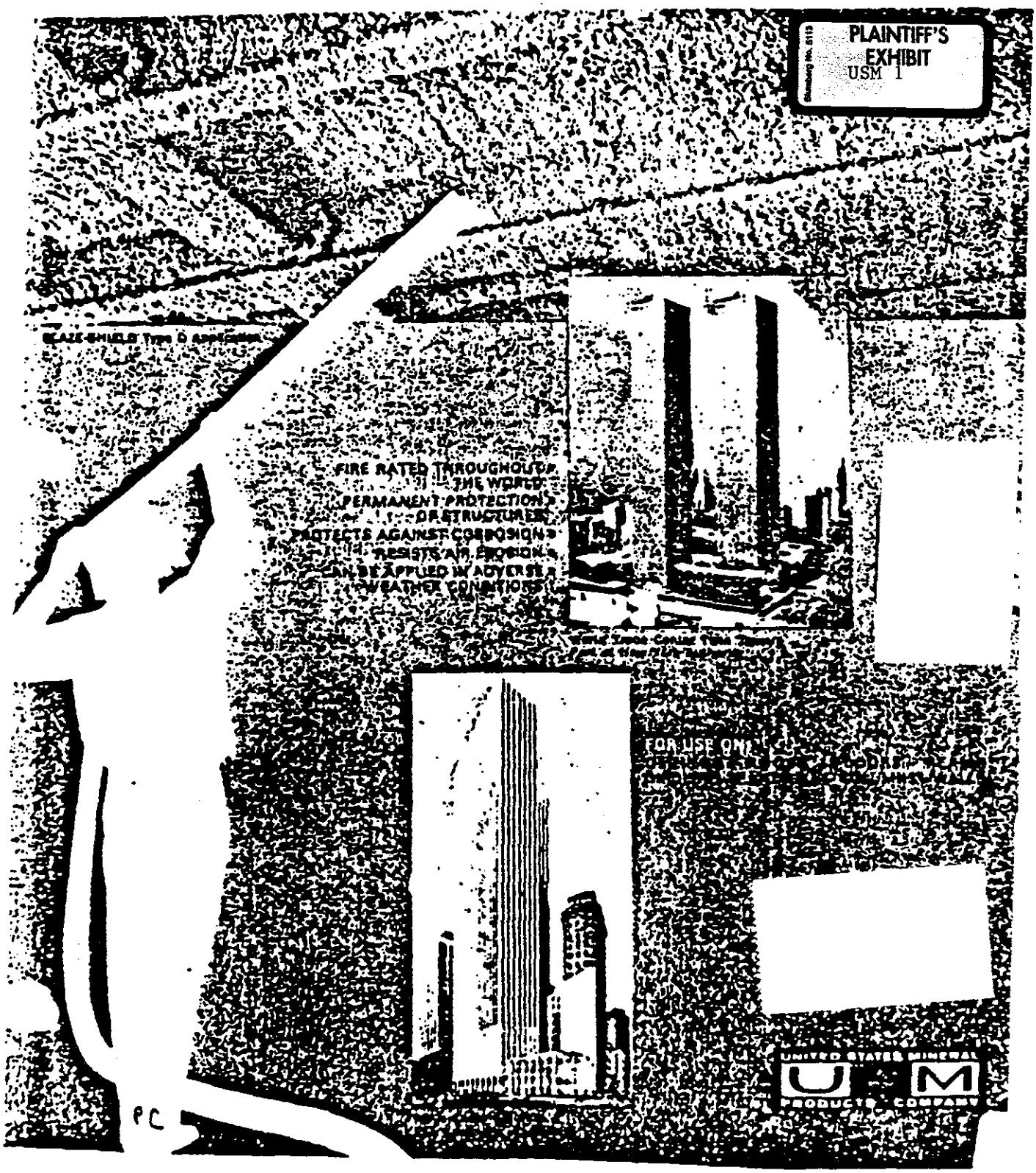
UNITED STATES MINERAL PRODUCTS COMPANY

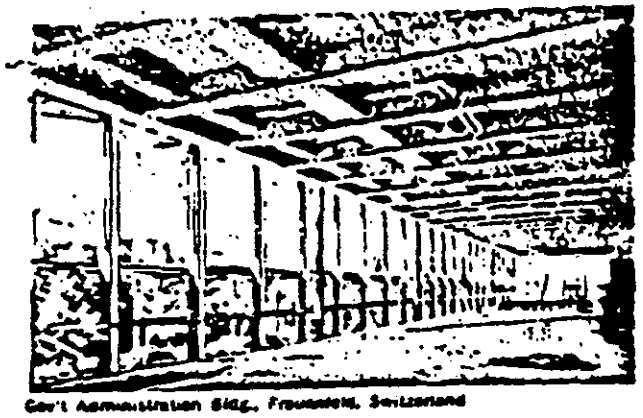
BLAZE-SHIELD®

TYPE D

DIRECT-TO-STEEL SPRAY-FIBER FIREPROOFING

PLAINTIFF'S EXHIBIT
USM 1





Gov't Administration Bldg., Frauenfeld, Switzerland

APPLICATION ADVANTAGES

Easy to apply. Just spray BLAZE-SHIELD Type D to a clean, rigid, pre-wetted surface. Then overspray it with water. Its natural white finish provides a light reflectance coefficient rating of 71 percent.

Only one coat required. The required thickness of BLAZE-SHIELD Type D can be built up with only one coat, applied directly to the steel surface. Curing time is only 24 hours.

Adhesive priming coat is eliminated. No priming adhesive is required on the surface to be treated as the adhesive of BLAZE-SHIELD Type D is an integral part of the product.

Tamping is eliminated. No tamping of BLAZE-SHIELD Type D is required since the application process produces an acceptable uniform, firm fiber mat.

Sealer is eliminated. No sealer or crust coat is required since BLAZE-SHIELD Type D forms a hard crusted surface with the overspray of water.

Scaffolding is eliminated on most jobs. No scaffolding is normally required, as with a lightweight pole gun, a man can easily reach surfaces 10 to 16 feet from the floor.

ARCHITECTURAL SPECIFICATIONS CAFCO BLAZE-SHIELD Type D

GENERAL

Scope — This section shall include materials, equipment and necessary labor for installation of sprayed mineral fiber in accordance with specifications and applicable drawings.

Contractor — The contractor shall be licensed by the manufacturer of the material and be qualified and skilled in this type of application. He shall use materials and equipment recommended by the manufacturer and shall execute all work in accordance with manufacturer's recommendations.

Product Compliance — The sprayed fiber shall have been tested by accredited laboratories to meet required ratings and performance, and shall conform to the applicable requirements of the building code and all authorities having jurisdiction.

Responsibility of others — It shall be the responsibility of others to provide adequate electric power, water, ventilation, light and heat. All hangers, pipes, [illegible] by other trades after spray work is completed.

Fiber — The fiber shall be a factory quality-controlled and formulated mix of virgin mineral fibers combined with proprietary binders. Fibers shall be CAFCO BLAZE-SHIELD Type D as manufactured by United States Mineral Products Company (in Canada —Columbia Acoustics & Fireproofing Co., Ltd.) or an approved equal.

The fiber shall be delivered to the job site in sealed bags which are labeled to identify the application for which the product is intended.

INSTALLATION

Examination of Surface — The contractor shall examine all surfaces which are to be treated with CAFCO mineral fiber and before application begins, shall report in writing to the general contractor, any conditions which might impair proper installation and adhesion. The general contractor shall promptly correct such conditions before application begins.

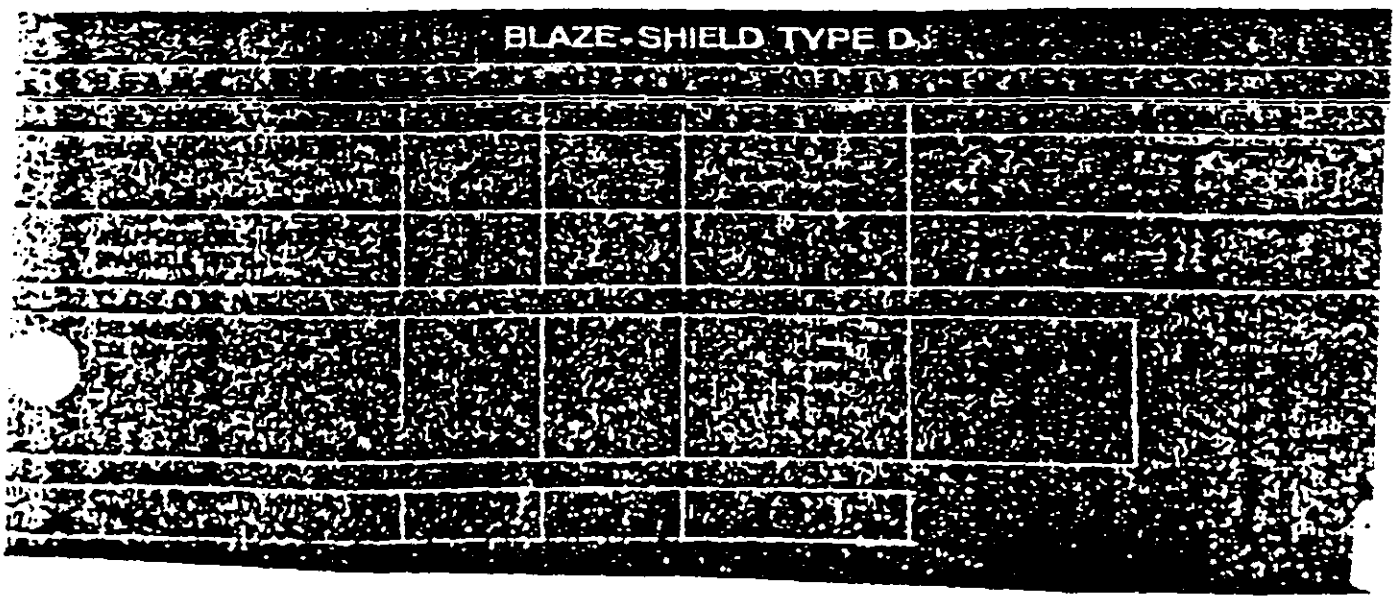
Surfaces shall be reasonably clean and free from dirt, grease, oil, loose plaster, rust scale, loose paint or other conditions which would prevent good adhesion. Cold weather application shall follow the manufacturer's recommendation.

Application — The surface shall be wetted with water as recommended by the manufacturer. The fiber shall then be sprayed to the wet surface to the desired thickness. Tamping is not required.

Cleaning — After completion of each day's work, the contractor shall sweep clean all adjoining walls and floors upon which fiber has been deposited.

WIDELY ACCEPTED CAFCO BLAZE-SHIELD HAS BEEN USED IN:

World Trade Center Twin Towers ..... New York City
Toronto International Airport ..... Malton
American Cyanamid Building ..... Wayne, New Jersey
Union Carbide Building ..... New York City
State Office Building ..... Boston
140 Broadway Building ..... New York City
IBM Building ..... Philadelphia
Fordham University ..... New York City
Gateway Center #4 ..... Pittsburgh
Fireman's Fund Building ..... Los Angeles
Seattle First National Bank ..... Seattle
Federal Office Building ..... Juneau
Lincoln Building ..... Spokane
Wells Fargo Building ..... San Francisco
Federal Office Buildings .. New York City, Newark, Bridgeport, Boston, Baltimore, Cleveland, San Francisco
United Insurance Building ..... Chicago
Ohio National Life Insurance Building ..... Cincinnati
Burroughs Office Building ..... Detroit
Home Security Building ..... Durham
First National Bank Building ..... Orlando
Allen Towers ..... New Orleans
Metropolitan Life Insurance Building ..... Ottawa
Federal Building ..... Toronto
National Cash Register ..... Chicago
Bell Telephone Building ..... Davenport
Guinness Tower ..... Vancouver, B.C.
Lone Star Gas Building ..... Dallas
University Towers ..... El Paso
Wachovia Building ..... Winston-Salem
Canadian National Railways Building ..... Montreal



OTHER CAFCO BLAZE-SHIELD PRODUCTS

BLAZE-SHIELD STANDARD
Fireproofing · Acoustical · Thermal

BLAZE-SHIELD Standard is an economical solution wherever fireproofing, sound absorption and thermal insulation are desired. It also provides a supplementary advantage in providing condensation control.

Its fireproofing feature has gained wide acceptance by building code, municipal, and insurance authorities for high-rise apartment and office buildings, refineries, warehouses, ships, steel mills, industrial plants, etc. BLAZE-SHIELD Standard, possessing excellent acoustical and thermal insulating properties, is used in such diverse applications as metal buildings, curtain wall construction, and under surfaces of concrete slabs and roof systems.

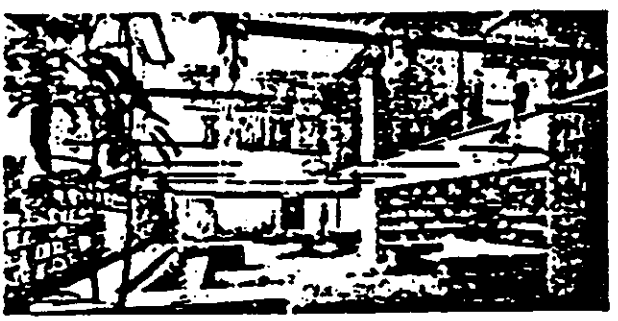
PRODUCT FEATURES

Proven fire performance — Exposed to actual severe fire conditions on major high-rise structures, BLAZE-SHIELD Standard did not crack or spall. Its fire-resistant properties have been approved by Factory Mutual Engineering Division for the conversion of Class II insulated Metal Roof Deck Construction to the lower premium cost Class I category.

High thermal insulating efficiency — BLAZE-SHIELD Standard possesses a low thermal conductivity "k" factor of 0.27 BTU per hour, per square foot, per inch, per degree Fahrenheit. Its use provides important heating and air conditioning savings.

High sound absorbing efficiency — BLAZE-SHIELD Standard offers high acoustical absorption characteristics over a wide frequency range. It provides for an entirely new concept in ceiling design since it is equally suited for flat, curved, or configurated ceilings or roofs and can be attractively painted with virtually any design color.

Condensation control — BLAZE-SHIELD Standard possesses a wicking action which permits its fibers to absorb and so[illegible] its moisture vapor. Condensation formed in the fiber mat [illegible] it to the base surface is absorbed and later released by the evaporation process.



School of Arts & Architecture Library,
Yale University, New Haven, Connecticut

CAFCO FIELD ASSISTANCE SERVICE

Experienced, licensed CAFCO contractors and CAFCO representatives throughout the United States and Canada and in 38 foreign countries represent one of the largest licensed contractor and service organizations in the world. CAFCO service personnel are available for immediate consultation regarding estimates, specifications, and code approvals. Job-inspection service by CAFCO representatives is also available to architects, general contractors, and owners. Through the well-coordinated efforts of the CAFCO field assistance program, construction schedules are not delayed.

BLAZE-SHIELD TYPE H
Acoustical—Thermal

BLAZE-SHIELD Type H features acoustical absorption and thermal insulation—with essentially the same overall sound absorption and thermal insulation characteristics listed for BLAZE-SHIELD Standard. In addition, BLAZE-SHIELD Type H is formulated to provide a more aesthetic, fissured, travertine-type finish for exposed applications where finish, as well as damage resistance, is of prime importance. Its monolithic coating absorbs normal structural movement without surface cracking or spalling.

SOUND ABSORPTION

Product & Thickness	Base	Coefficients						NRC
		125	250	500	1000	2000	4000	
¾" BLAZE-SHIELD STANDARD	Metal Lath	.49	.65	.88	.93	.90	.87	85
¾" BLAZE-SHIELD STANDARD	Solid	.51	.34	.52	.88	.99	.93	.70
1½" BLAZE-SHIELD TYPE D	Deck-Beams	.33	.55	.80	.99	.99	.97	.85
½" BLAZE-SHIELD STANDARD and ¼" BLAZE-SHIELD TYPE H	Solid	.09	.22	.61	.83	.85	.77	.65
¾" BLAZE-SHIELD TYPE H	Metal Lath	.46	.65	.75	.81	.89	.87	90
¾" BLAZE-SHIELD TYPE H	Solid	.29	.21	.45	.76	.96	.99	60

Tests conducted in accordance with ASTM-C-423-66T by Riverbank Acoustical Laboratories, Geneva, Illinois, or Cedar Knolls Acoustical Laboratories, Cedar Knolls, N. J.

APPLICATION ADVANTAGES

Harder, denser finish — BLAZE-SHIELD Type H contains a durable damage-resistant fiber, resulting in a harder, denser finish. Where ceiling heights are less than 9 feet or where ceiling surfaces would be subject to abrasion, BLAZE-SHIELD Type H is recommended as either an integral application or as a finish over a BLAZE-SHIELD Standard base for ceilings or roofs. This provides for a completely incombustible, rot proof, and vermin proof installation.

Adaptable — BLAZE-SHIELD Type H is adaptable to virtually any surface shape. Unlike preformed insulation materials, it may be applied directly to curved or irregular surfaces forming a continuous mat, thus eliminating air spaces and pockets of condensation which could result in corrosion of metallic base surfaces. It is excellent for swimming pools and high humidity areas.

OTHER CAFCO PRODUCTS

CAFCO HEAT-SHIELD — Provides a direct-applied, continuous incombustible insulating blanket with a thermal conductivity (k) value of 0.26 at 75°F. Ideal for thermal insulation of pre-engineered metal buildings and other applications.

CAFCO POWER-SHIELD — A high quality controlled blend of mineral fibers, with proprietary binders, specifically formulated for thermal insulation in critical high temperature industrial applications.

CAFCO SOUND-SHIELD "85" — Answering an industry need for a harder, whiter, spray-applied ceiling finish providing predictable accoustical performance. SOUND-SHIELD "85" surpasses the performance characteristics of most spray or trowel applied acoustical ceiling materials. It is U.L.I. fire tested and rated.

UNITED STATES MINERAL PRODUCTS COMPANY