

material equivalent to that used for Alum-A-Felt Pipe Covering.

Alum-A-Felt Pipe Covering terminates at exposed ends of the Alum-A-Felt is protected by prefabricated aluminum, neatly fitted in place and secured with compatible steel metal screws or "pop"

Application Specification is general and illustrative of an actual design. Actual application procedure is the responsibility of the design engineer to meet specific job requirements.

Alum-A-Felt Pipe Covering, fabricated or field fabricated from Alum-A-Felt Board by approved fabricator in accordance with the above application, assures to the consumer:

insulation application which reduces to a minimum possible water, or moisture during the period of application in the life of the application.

insulation application which is installed without the use of wet plastic compounds, weather barrier materials, minimum corrosion of pipe surfaces, hangers and accessories.

insulation application with "built in" steel joints. An "expansion" joint at circumferential lap.

insulation application that provides a low installed cost, custom made Alum-A-Felt Pipe Covering for these jobs and the capacity of the field fabricator, neat fabrication and rapid delivery of smaller jobs from approved fabricator.

Manufactured by
THE EAGLE-PICHER COMPANY
General Office, Insulation Division
American Building, Cincinnati, Ohio 45201
NATIONAL INSULATION
MANUFACTURERS ASSOCIATION

INDUSTRIAL INSULATION

for high and low temperatures

EAGLE
EP
PICHER

INDUSTRIAL INSULATION

PV SUPERTEMP BLOCK

Strong, lightweight
For a block of

Proven fastness

For temperatures to 1900 F

Meets Commercial Standard C117
and A.S.T.M. Spec. C-392 — Class 2

English-Picher PV SUPERTEMP Blocks are manufactured through a completely new process utilizing special equipment and techniques of varying processes and equipment... a development of English-Picher's own Research Laboratories and Engineering Dept. These Proven Blocks, mineral wool blocks meet a specific demand in the heat insulating field for an efficient insulating block combined with great breaking strength and the ability to withstand a full range of temperatures up to 1900 F.

They can be installed quickly and easily, and soon pay for themselves in fuel savings and improved temperature control. Because of their lasting durability, you are assured of continuing savings.

Made primarily from high temperature mineral wool, these blocks have extremely low thermal conductivity, so essential to reduce operating costs. They are easily cut with a knife, to fit irregular surfaces, yet they are strong enough to hold up under normal handling and usage. Ease of application makes them one of the best.

Recommended thicknesses

TEMPERATURE	THICKNESS
Up to 100 F	1-1 1/2 in.
101-400 F	2 in.
401-600 F	3 in.
601-700 F	3 1/2 in.
701-800 F	4 in.
801-1000 F	4 1/2 in.
1001-1200 F	5 in.
Over 1200 F	5 1/2 in.

Because they meet the demands of all operating temperatures up to 1900 F, only one type block is needed. Their light weight and low density facilitates handling and indicates the presence of voids of "dead" air cells essential to light efficiency. They require only minimum reinforcing. Single layer construction minimizes application cost and increases efficiency.

PV SUPERTEMP Blocks resist moisture. They are as permanent as any mineral wool can be. They do not disintegrate or lose their efficiency under service for which they are recommended. They are suitable for use with suitable refractories.

Recommended uses

Refractories
Boilers
Tanks
Towers
Liners
Ducts
Heater Walls
Molten Tanks
Kilns in glass and ceramic industries

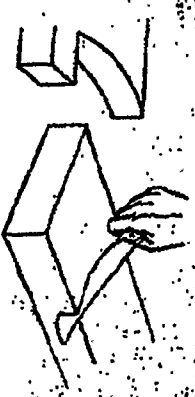
packing list

THICKNESS	12 in.	18 in.	24 in.
1 in.	41	41	41
1 1/2 in.	41	41	41
2 in.	41	41	41
2 1/2 in.	41	41	41
3 in.	41	41	41
3 1/2 in.	41	41	41
4 in.	41	41	41
4 1/2 in.	41	41	41
5 in.	41	41	41
5 1/2 in.	41	41	41

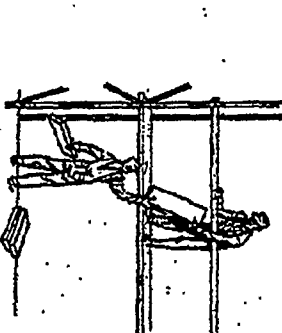
Weight of block, standard condition

481451

superior



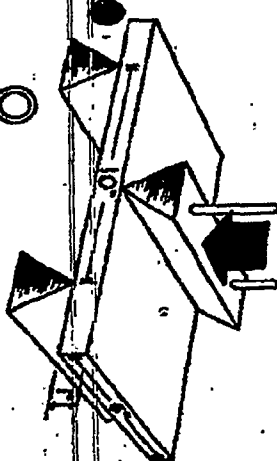
English-Picher PV SUPERTEMP Blocks may be cut with a knife to fit irregular surfaces.



English-Picher PV SUPERTEMP Blocks are strong enough to withstand normal and abnormal handling.

comparative strength of PV SUPERTEMP

... against other brands



Brand	Strength (lb. per sq. in.)
PV SUPERTEMP	23
Brand "A"	20
Brand "B"	18
Brand "C"	16

properties

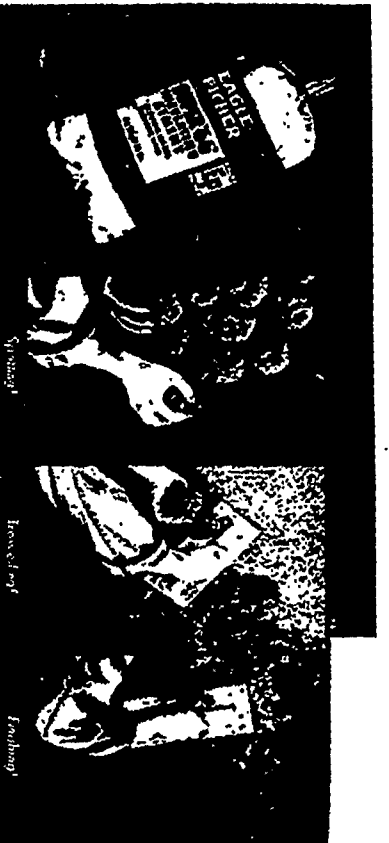
Property	Value
Density	20 lb. per cu. ft. average
Thermal Trans.	Up to 1900 F
Acoustic Absorption	Highly effective
Resistance to acid	Best and most effective
Fire resistance	100% at 1900 F
Low shrinkage	Less than 1% at 1900 F
Resists creep	25 lb. per sq. in. at 1900 F
Resists sagging	25 lb. per sq. in. at 1900 F
Resists cracking	25 lb. per sq. in. at 1900 F
Resists spalling	25 lb. per sq. in. at 1900 F
Resists scaling	25 lb. per sq. in. at 1900 F
Resists delamination	25 lb. per sq. in. at 1900 F
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Resists coagulation	25 lb. per sq. in. at 1900 F
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SUPER "66"

THE ORIGINAL RUST-INHIBITIVE INSULATING CEMENT

INDUSTRIAL INSULATION

SUPER "66" INSULATING CEMENT



For Temperatures to 1800 F Meets Commercial Standard CS17 and A.S.T.M. Spec. C-193

Eagle-Picher SUPER "66," a highly efficient, stable, all purpose insulating cement for temperatures up to 1800 F can be applied to hot or cold surfaces; flat, curved or irregular shaped with equal ease. Its unusual *stability* makes it the ideal insulating cement. SUPER "66" is factory tested for uniform color, texture and smoothness.

Advantages

Non-shrinkable In addition to its natural non-sensitive properties, derived from Eagle-Picher Mineral Wool, SUPER "66" contains an added non-shrinker. When properly applied to an iron or steel surface, it will give additional protection against corrosion.

All purpose Eagle-Picher SUPER "66" is virtually an all purpose insulating material. It is designed to serve under a full range of temperatures up to 1800 F, and can be applied to any heated equipment in this range. Maintaining state of it, therefore, eliminates the need of keeping on hand many other varied types of insulation which may be used only under limited conditions.

Refractable When used at temperatures up to 1200 F, it is refractable for it can be removed from the equipment, mixed with water, and used again. This is important especially where frequent maintenance work on equipment is necessary.

High coverage SUPER "66" provides unusually high coverage making it most economic to use. Its dry coverage is approximately 10 sq ft. 1 in. thick per 100 lb.

Easy-to-apply Not special tools required, insulation job can be done easily and quickly. Its low and speed of application means much less time out of service and a quicker, more thorough insulating job on new equipment.

"Strong half" structure One of the most important features of this superior insulating cement is its remarkable "strong half" structure that provides outstanding insulating efficiency. When dry, the entire thickness of the insulation is honeycombed with small, resilient pellets each containing thousands of tiny "dead" air cells... one of the most effective heat barriers known. This means maximum fuel savings as well as lower temperature control.

packaging Shipped in 48-lb. Multi-wall Kraft paper bags.

physical properties Shipped in 48-lb. Multi-wall Kraft paper bags.

Service Temperature Up to 1800 F

Vol. (lb. per 100 lb. cement) Approx. 90

Insulating Density 22.21 lb. per cu ft

Adhesive Strength to Steel 7 1/2 psi

Compressive Strength 11 psi

Fire Resistance None

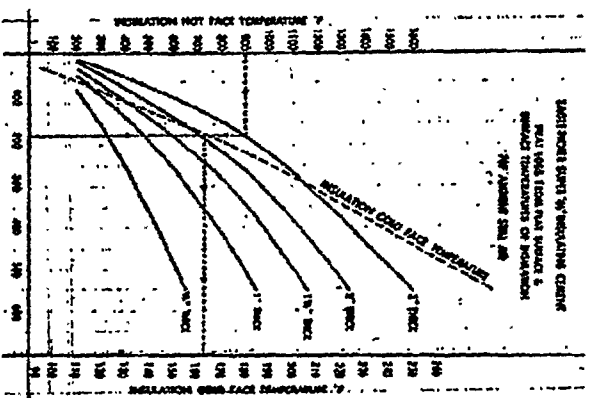
Thermal Conductivity (k) Ins. per in. per sq ft per ft per deg. F at room temperature of:

100 F 0.490

500 F 0.734

1000 F 1.000

- MIXING AND APPLYING SUPER "66"
Because of its plasticity, uniformity and adhesiveness, SUPER "66" is more easily mixed and applied than many other types of cement. Only a few simple rules are necessary to secure economical, yet highly efficient, insulation.
- (1) Thoroughly clean surfaces to be insulated of all dirt, scale, oil and loose scale.
- (2) Depending upon surface to be covered, prepare Eagle-Picher SUPER "66" by adding approximately 12 gal of clean, fresh water to 50 lb of dry cement.
- (3) No soaking is required. The cement should be wet enough to provide the correct adhesiveness and to make application easy.



- (4) Use the "spooling" method for the initial coat; that is, apply the material by hand so that a spooly appearance is obtained. Then fill in between these "spools" to give a completely covered surface.
- The initial coat should be applied to a thickness of 1/2 to 3/4 in. and permitted to dry. Subsequent coats of the same thickness should be applied until desired thickness is obtained. The final coat to be troweled to a smooth surface.
- (5) The work can be considerably expedited if heat is provided in the equipment during the application.
- (6) Allow each coat to become dry before applying the succeeding coat.
- (7) If a solvent type waterproofing agent is to be used, be sure the cement is dry before applying the waterproofing.

HEAT LOSS CHART (LEFT)

To ascertain Heat Loss when Heat Face Temperature is known.

From Insulation Hot Face Temperature (900 F) read across to Thickness of Insulation curve (3 in.). From point of intersection, read down to Heat Loss (85 Btu).

To ascertain Cold Face Temperature when Heat Loss is known.

From known Heat Loss (185 Btu) read up to Insulation Cold Face Temperature curve. From point of intersection, read across to Insulation Cold Face Temperature (145 F).

A FEW RECOMMENDED USES

Boiler drums	Exhausters	Domestic furnaces
Boiler headers	Exhausters	Water tanks
Boiler skirts	Boiler hatches	Steam generators
Boiler envelopes	Boiler nozzles	Steam pipes
Boilers	Boiler nozzles	Boiler nozzles
Compressors	Boiler nozzles	Boiler nozzles
Pumps	Boiler nozzles	Boiler nozzles
Valves and fittings	Boiler nozzles	Boiler nozzles
Refrigerator flanges	Boiler nozzles	Boiler nozzles
Heat exchangers	Boiler nozzles	Boiler nozzles

48145.1

THE EAGLE-PICHER COMPANY



ONE-COTE CEMENT

For temperatures to 1000 F

Eagle-Picher ONE-COTE Cement goes on in one single coat to the desired thickness, insulating... protecting... finishing... all in one quick and easy application. ONE-COTE sure valuable maintenance!

It is a white, clean-handling cement which stands in a smooth high-reflection surface. It readily adheres to cold (above 32 F) metal equipment. Hot equipment should be completely encased by the cement for satisfactory adhesion. It may also be applied outside under normal conditions. Its quick setting withstands rain or moisture two hours after application without softening. Shrinkage is negligible and it dries to a smooth, firm, crack-free surface. Its high compressive strength.

ONE-COTE is easily packed. 50-lb. bags may be applied to the desired surface and additional coats of water-based paint may be applied subsequently.

Application



1. Finish of Eagle-Picher ONE-COTE Cement at Various Mean Temperatures

Mean Temperature	°F	Mean Temperature	°F
200 F	.50	600 F	.77
400 F	.63	800 F	.91

Recommended uses

Labels and fittings
storage tanks
aluminum
flexible pipes
pipes and concrete lines
valves
vacuum cylinders
air products
hot air ducts
refractories
pyrolysis

Coverage

When mixed and applied as recommended on the package, it covers approximately 1 sq ft $\frac{1}{4}$ in. thick per 100 lb.

Prepackaging
Shipped in 50 lb. Kraft-wall Kraft paper bags.

1. Eagle-Picher ONE-COTE Cement is applied in one operation to the desired thickness, and an easily applied seal. ONE-COTE acts as building material. When ONE-COTE is applied outside, it is readily water-resistant and is permanent, weather-resistant, setting by itself.

2. When a dry, granular, setting surface is required, a coat of Eagle-Picher INSULITE is recommended. In application with ONE-COTE, INSULITE is a tough, fire-resistant coating that permits insulation from vibration, shock, and weather... provides a lasting, durable surface.

481455



FIREPROOFING CEMENT

For temperatures to 2000 F

Listed under the Label Service of Underwriters' Laboratories, Inc.

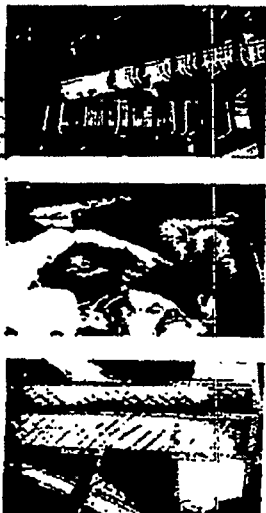
Eagle-Picher Fireproofing Cement, $\frac{1}{2}$ in. thick, provides 1-hour protection, as recorded in Underwriters' Laboratories report R-3111, covering a full size column test made according to A.S.T.M. Standard E-119. Subscribers to Underwriters' Laboratories may refer to Guide No. 340 (O, April 22, 1949, IFC R-3111).

Eagle-Picher Fireproofing Cement makes possible one of the lightest, easiest-to-apply and most efficient fireproofing systems you can get. Because it is so light in weight, simpler, less costly construction is required. On average jobs, there is no need for heavy reinforcing. In the case of tall structures, this weight saving may even permit the use of smaller steel columns.

Eagle-Picher Fireproofing Cement is easy to apply. You simply trowel it on after surfaces have been prepared by installation of metal lath or mesh. Only 24 hours are required for it to set hard.

Eagle-Picher Fireproofing Cement resists corrosion. Pitted and weathered surfaces are incorporated in Eagle-Picher Fireproofing

Application



Cement, thus affording valuable PLUS protection against rust and corrosion where the material contacts structural members. Eagle-Picher Fireproofing Cement serves at temperatures up to 2000 F.

Recommended thicknesses

Thickness of Fireproofing Cement	Approximate Fire Resistance Rating
1 in.	2 hours
$1\frac{1}{4}$ in.	3 hours
$1\frac{1}{2}$ in.	4 hours

Coverage

Eagle-Picher Fireproofing Cement has a high dry coverage of approximately 30 sq ft, 1 in. thick per 100 lb.

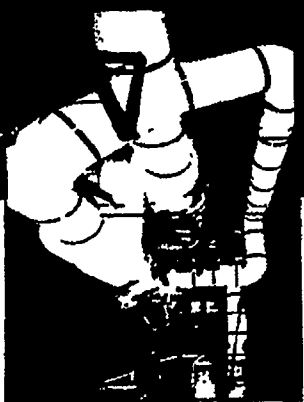
Packaging

Packed in 50 lb. Kraft paper bags containing approximately 30 sq ft.

1. In fireproofing structural members, a base of metal lath is advisable.
2. Fireproofing Cement is applied and troweled to the desired thickness in dry mix operation.
3. The mixture should be used to provide a good dry base for any finishing treatment. In only 24 hours, a protective coating may be applied if desired.

481456

HYLO PIPE COVERING AND BLOCK INSULATION



For temperatures from 100 F to 1600 F
 Meets A.S.T.M. Spec. C-344, C-345. Also Mil. Spec.
 MIL-1-3781-B, where applicable

Eagle-Picher HYLO Pipe Covering and Block Insulation is made from inorganic silica. Literally honeycombed with millions of tiny sealed air cells, it effectively stands up to temperatures as high as 1600 F.
 With its high thermal efficiency and remarkable structural strength HYLO can be used in single layer application, or as a base layer with Eagle-Picher 85% Magnesite which temperatures will exceed 1600 F.

physical data

Exposure to high moisture conditions does not affect the thermal conductivity of HYLO, nor does it cause it to deteriorate in any manner.

Tests on comparable insulations show it to have lower internal shrinkage... about 80% of most 1200 F insulations. HYLO remains in high level of efficiency because it does not crack or break apart from shrinkage.

There is a full temperature range from 100 F to 1600 F. The already low thermal conductivity of this product is actually improved after exposure to high temperatures. HYLO is extremely durable. It resists shock and with-stands peeling, slumping and handling with minimum, if any, breakage. It does not scratch, cut, abrade or otherwise irritate applications, hands and skin. It is extremely simple for applications on wet and from HYLO with a knife... even through the canvas on pipe covering. It fits joints, welds and the edges return seal and

square helping to provide tight, secure joints that prevent heat leakage. Moreover, this unique pipe covering and block is not brittle by nature... this means it can be cut or shaped to fit irregular areas and around projections.

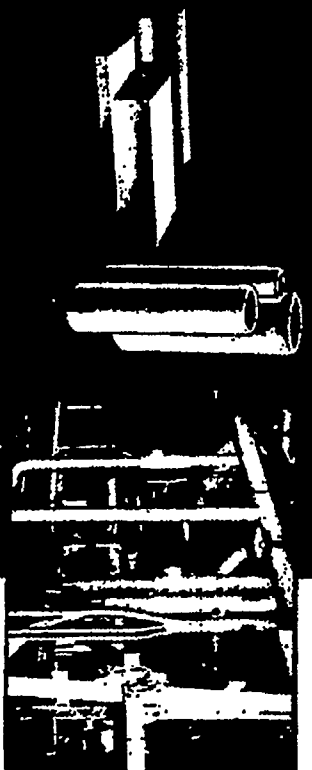
specifications

Density	Pipe covering	11 lb per cu ft.
Blocks		17-20 per cu ft.
Conductivity	at 100 F	.30
	at 500 F	.58
	at 1000 F	.770
Compressive strength	solid	approx. 50 lb per sq in.
	at 1500 F	approx. 60 lb per sq in.
Heat expansion	none	
Heat shrinkage	at 1500 F	0.75%
	at 1600 F	1.25%
Flexural strength		60 lb per sq in.

data for combination insulation of HYLO inner layer and Eagle-Picher 85% Magnesite outer layer

Inner Surface	400	700	800	900	1000	1100	1200
Thermal conductivity	15	15	2	2 1/2	3	3 1/2	4
85% Magnesite	15	2	2 1/2	3	3 1/2	4	4 1/2
Overall	20	17	4 1/2	5 1/2	6 1/2	7 1/2	8 1/2
Temp. range	100-1100	100-1100	100-1100	100-1100	100-1100	100-1100	100-1100
Efficiency	97.1	97.0	92.1	92.4	92.7	90.0	89.3
Based on 60 deg. Fahrenheit temperature							
No. insulator thickness (inches)	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2

85% MAGNESIA PIPE COVERING AND BLOCK INSULATION



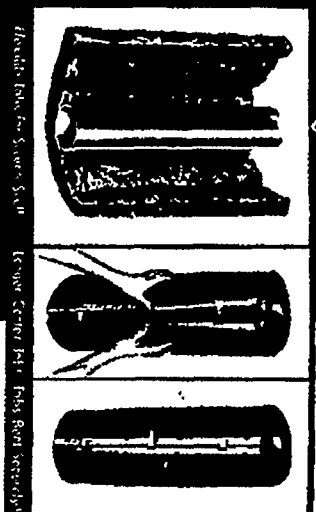
For temperatures to 600 F
 Meets A.S.T.M. Spec. C-319, C-320 and Mil. Spec.
 MIL-1-3781-B.

Eagle-Picher 85% Magnesite is made from not less than 85% basic hydrated carbonate of Magnesia plus selected long fiber asbestos fibers ranging from 10% to 15%. A modernized material... the result of years of scientific research.

Basically the difference between Eagle-Picher 85% Magnesite and the ordinary filterpress magnesite is the new manufacturing technique and modern machine handling.

Super Heat Piping Insulation - Thickness Tables for Various Temperature Ranges

Temperature range	Recommendations											Pipe sizes and recommended fluid injection addresses in inches										
°																						
1300 to 1399	Heat Exchanger HXO Cooler Exchanger E33, Magnetics Heat Exchanger HXO Cooler Exchanger E33, Magnetics											2 1 1/2 2										



Diagrams show how to apply TAB-LOK Pipe Insulation. (1) Apply TAB-LOK Pipe Insulation. (2) Secure TAB-LOK Pipe Insulation with strap. (3) Finished insulated pipe.

TAB-LOK PIPE INSULATION

For temperatures to 1200 F

Eagle-Picher TAB-LOK Pipe Insulation is a bonded pipe covering made by fusing and vacuum high temperature mineral wool between metal fabric of special support bearing metal lath and polyurethane resin setting held in place by self-pulverized tie wires. The inside metal fabric is cut and spaced for easy application to fit exactly the outside circumference of the insulation. Along the edges for the full length of each TAB-LOK section, are two parallel metal strips, one having serrated flexible tabs, the other, sleek. It is designed to provide maximum heat saving efficiency on steam piping and hot lines. Also for use on outside cold water lines.

Advantages

Save Time and Labor — Can be applied in about half the time required in the application of ordinary pipe coverings. It goes on in a single layer regardless of thickness. It is easy to handle, cut and fit. No special fitting practices are needed. . . simply draw tabs through slots, pull back, and bond the cover.

Highly Efficient — Has excellent resistance due to its dense structure, allowing a minimum of steam expansion and contraction of heated equipment.

Proven Resistance for Life Protection — Simply dip the tabs from the slots and pull within can be formed and repaired. Quick! Easy!

Water Repellent — The mineral wool assembly of TAB-LOK insulation source prevents penetrating moisture under most conditions of handling.

Fireproof and Low Residue — Contains nothing to cause an asphyxiant atmosphere and is completely non-combustible.

Proven Product

Extensive — Greater efficiency coupled with the ease of application, adds up to important dollar savings.

Resistant to Steam, Sulfur, Soot — Proven that in cases that are easy to state in a minimum of space in warehouses. Easier to handle on the job, too!

Sizes

Manufactured in sections of 2 lines ft for nominal pipe sizes from 1/2 in. up to and including 12 in., also, for pipe sizes with diameters ranging from 13 in. to and including 48 in. (Over to 60 in. on special order.)

RECOMMENDED APPLYING THICKNESSES

Steam Pressure or Condition	Temperature	Insulation Thickness in inches	Pipe 3 in. and larger	Pipe 4 in. and 6 in.
Hot Water				
0 to 35 lb	272 to 292 F	1	1	1
35 to 100 lb	302 to 335 F	1	1	1
100 to 200 lb	335 to 385 F	1 1/2	1 1/2	1 1/2
Low Pressure	212 to 500 F	1 1/2	1 1/2	1 1/2
Superheat	500 to 600 F	2	2	2
High Superheat and Hot Oil Lines	600 to 700 F	2	2	2
	700 to 800 F	2 1/2	2 1/2	2 1/2
	800 to 1000 F	3	3	3
	1000 to 1200 F	4	4	4

For outside piping of thicknesses up to 1/2 in. the recommended application thickness may be determined by 1/2 in. above given.

481459

MINERAL WOOL BLANKETS

For temperatures to 1200 F

Meets Commercial Standard CS117 and A.S.T.M. Spec. C-688

Eagle-Picher Blankets are fabricated according to rigidly controlled factory specifications to yield maximum thermal efficiency and lasting economy.

Every blanket is made up of many folded layers of Eagle-Picher Mineral Wool, with each overlapped to form smooth, firm edges that can be tightly and efficiently bonded together, saving in application time as well as a long range, continuous savings in fuel.

Factory fabrication by Eagle-Picher means that these blankets are completely free of large "voids" so often found in field-made blankets where insulation is merely packed in place. Mineral fibers are evenly dispersed over the entire area of each blanket . . . uniform throughout.

Eagle-Picher Blankets are extra sturdy and flexible. Metal lath, bonded by evenly spaced self-stretching galvanneal tie wires, keep the blankets firm but flexible.

Physical Properties

Moisture Absorption — Less than 1% by weight at 120 F and 100% relative humidity for 96 hrs.

Fire Resistance — Does not cause or contribute to fire.

Thermal Conductivity (k) — For per ft. per sq. ft. per in. at 100 F. For 1/2 in. at 100 F. temperature of 100 F.

Temperature	Thickness
100 F	1 in.
200 F	1 1/2 in.
300 F	2 in.
400 F	2 1/2 in.
500 F	3 in.
600 F	3 1/2 in.
700 F	4 in.
800 F	4 1/2 in.
900 F	5 in.
1000 F	5 1/2 in.
1100 F	6 in.
1200 F	6 1/2 in.

Recommended Thicknesses

Temperature	Thickness
100 F	1 in.
200 F	1 1/2 in.
300 F	2 in.
400 F	2 1/2 in.
500 F	3 in.
600 F	3 1/2 in.
700 F	4 in.
800 F	4 1/2 in.
900 F	5 in.
1000 F	5 1/2 in.
1100 F	6 in.
1200 F	6 1/2 in.

When applying Eagle-Picher Blankets no extra material is required to obtain air space between the hot surface and the insulation. Automatic air spacing is provided when blankets, faced with tie-wire (tensile only) metal lath, are bonded with the system hot surface. Eagle-Picher High Temperature Mineral Wool in these blankets has outstanding thermal and physical stability. It strongly resists effects of water, steam, moisture, or corrosive fumes; withstands all normal temperatures without breaking down; and retains its efficiency.

Recommended Uses

- Exhausting Ovens
- Drying Ovens
- Large Ovens
- Jamming Ovens
- Large Ovens
- Industrial Washing Machines
- Large Vessels and Tanks
- Hot Air Ducts
- Black Kitchens
- Boilers and Boilings
- Mobile Towers
- Railroad Tank Cars
- Stills
- Heat Exchangers

Standard Sizes and Styles

Eagle-Picher Blankets are available in thicknesses of from 1 to 8 inches in 1/2-inch increments and in pieces 2 ft x 4 ft and 2 ft x 8 ft cutting & possible to cover large areas quickly and easily. Ready cut on the job to fit irregular areas or unusual obstructions. Special sizes on order.

Standard Styles

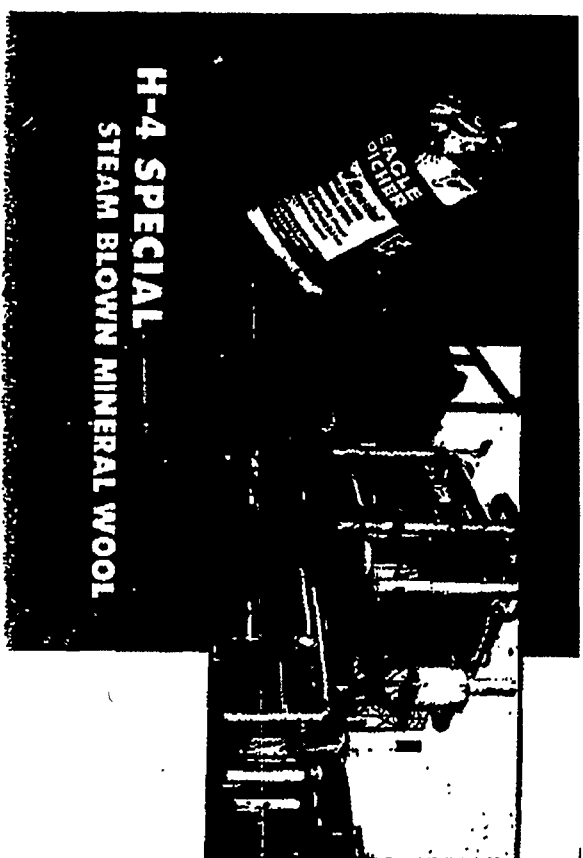
Style No.	Features Used
580	1 in. with metal tie wires
580-A	2 in. with metal tie wires
580-B	3 in. with metal tie wires
580-C	4 in. with metal tie wires
580-D	5 in. with metal tie wires
580-E	6 in. with metal tie wires
580-F	7 in. with metal tie wires
580-G	8 in. with metal tie wires
580-H	9 in. with metal tie wires
580-I	10 in. with metal tie wires
580-J	11 in. with metal tie wires
580-K	12 in. with metal tie wires
580-L	13 in. with metal tie wires
580-M	14 in. with metal tie wires
580-N	15 in. with metal tie wires
580-O	16 in. with metal tie wires
580-P	17 in. with metal tie wires
580-Q	18 in. with metal tie wires
580-R	19 in. with metal tie wires
580-S	20 in. with metal tie wires
580-T	21 in. with metal tie wires
580-U	22 in. with metal tie wires
580-V	23 in. with metal tie wires
580-W	24 in. with metal tie wires
580-X	25 in. with metal tie wires
580-Y	26 in. with metal tie wires
580-Z	27 in. with metal tie wires
580-AA	28 in. with metal tie wires
580-AB	29 in. with metal tie wires
580-AC	30 in. with metal tie wires
580-AD	31 in. with metal tie wires
580-AE	32 in. with metal tie wires
580-AF	33 in. with metal tie wires
580-AG	34 in. with metal tie wires
580-AH	35 in. with metal tie wires
580-AI	36 in. with metal tie wires
580-AJ	37 in. with metal tie wires
580-AM	38 in. with metal tie wires
580-AN	39 in. with metal tie wires
580-AO	40 in. with metal tie wires
580-AP	41 in. with metal tie wires
580-AQ	42 in. with metal tie wires
580-AR	43 in. with metal tie wires
580-AS	44 in. with metal tie wires
580-AT	45 in. with metal tie wires
580-AU	46 in. with metal tie wires
580-AV	47 in. with metal tie wires
580-AW	48 in. with metal tie wires
580-AX	49 in. with metal tie wires
580-AY	50 in. with metal tie wires
580-AZ	51 in. with metal tie wires
580-BA	52 in. with metal tie wires
580-BB	53 in. with metal tie wires
580-BB	54 in. with metal tie wires
580-BB	55 in. with metal tie wires
580-BB	56 in. with metal tie wires
580-BB	57 in. with metal tie wires
580-BB	58 in. with metal tie wires
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580-BB	61 in. with metal tie wires
580-BB	62 in. with metal tie wires
580-BB	63 in. with metal tie wires
580-BB	64 in. with metal tie wires
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580-BB	67 in. with metal tie wires
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580-BB	69 in. with metal tie wires
580-BB	70 in. with metal tie wires
580-BB	71 in. with metal tie wires
580-BB	72 in. with metal tie wires
580-BB	73 in. with metal tie wires
580-BB	74 in. with metal tie wires
580-BB	75 in. with metal tie wires
580-BB	76 in. with metal tie wires
580-BB	77 in. with metal tie wires
580-BB	78 in. with metal tie wires
580-BB	79 in. with metal tie wires
580-BB	80 in. with metal tie wires
580-BB	81 in. with metal tie wires
580-BB	82 in. with metal tie wires
580-BB	83 in. with metal tie wires
580-BB	84 in. with metal tie wires
580-BB	85 in. with metal tie wires
580-BB	86 in. with metal tie wires
580-BB	87 in. with metal tie wires
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580-BB	89 in. with metal tie wires
580-BB	90 in. with metal tie wires
580-BB	91 in. with metal tie wires
580-BB	92 in. with metal tie wires
580-BB	93 in. with metal tie wires
580-BB	94 in. with metal tie wires
580-BB	95 in. with metal tie wires
580-BB	96 in. with metal tie wires
580-BB	97 in. with metal tie wires
580-BB	98 in. with metal tie wires
580-BB	99 in. with metal tie wires
580-BB	100 in. with metal tie wires

THE EAGLE-PICHER COMPANY

481459

Other EAGLE-PICKER
FLAT and LOOSE MATERIALS

product	features	packaging
W7" PIPE COVERING	Easy to install, pre-stressed pipe covering for temperatures to 1200 F. Inside metal fabric. It designed to fit the outside circumference of the pipe to be insulated. Provides excellent operating temperature control and quickly ports for heat through its efficiency. Fire-resistant. Water-resistant. Ready cut on the job with ordinary metal shears. Gives virtually permanent protection. Meets A.S.T.M. Spec. C-268	Available in 2 ft lengths for 1 to 12 in. RS and 14 to 30 in. OD, 1 to 4 in. thick in 1/2 in. increments. Other sizes and thicknesses are available on special order.
FLEXIBLE Insulation PIPE COVERING	A highly efficient, flexible pipe covering for use in handling cold liquids operating below 50 F. It resists bacteria, corrosion, mold, odor, vibration. Density about 4 lb per 1 cu ft. When applied in multiple thicknesses and properly vapor-proofed, it may be used on refrigerated lines operating below freezing. Has a 400-degree temperature range. Low thermal conductivity. Covered with flameproofed scotch cloth. Cut to size at factory easy to apply.	Packed in 27 in. x 36 in. x 24 in. fiberboard cartons containing 3 ft lengths, 48 and cut to proper widths.
MINERAL WOOL SPUN FELT	For temperatures to 600 F. Non-combustible. Water-repelling does not absorb moisture or water. Chemically inert, has a pH range of 7.0 to 8.0. Comes in 2.5, 3, and 4 lb densities. Other densities available on special order. Easy to apply. Meets Commercial Standard CS105 and Federal Specs. MIL-4-553 and MIL-4-547, and A.S.T.M. Spec. C-264 Type 2-Class 3, 4, 5 and C-382-Type 2-Class 3, 4, 5.	Available in sizes 12 and 24 in. x 24, 30, 36, and 48 in. in thickness 1 in. to 4 in. inclusive by 1/2 in. increments. Packed in 30 in. x 24 in. x 24 in. cartons.
MINERAL WOOL	For temperatures to 1200 F. Does not break down, disintegrate, or lose its insulating efficiency. Available in two types: Type "H-42" — A loose insulating wool for ovens, furnaces, boiler walls, and similar purposes where bulk installation is required. Type "7-2" — A granulated insulating wool for use wherever a loose type insulation is desirable. It is easily applied and is especially suitable for filling irregular spaces. Light in weight, more coverage per lb. Resistant to acids. Low thermal conductivity at a mean temperature of 350 F it is approximately 0.47 Btu per in. per ft. per sq ft per deg. F-in. This value will vary a small amount, depending upon the density at which it is installed. Meets Commercial Standard CS101.	Packed in 3.5 cu ft kraft paper bags.
INSULATION		



H-4 SPECIAL
STEAM BLOWN MINERAL WOOL

For temperatures to -300 F

Eagle-Picker H-4 SPECIAL Steam Blown Mineral Wool is a dark gray, soft and resilient, chemically stable, moisture resistant, fine fiber mineral wool manufactured by a special spinning process. This H-4 SPECIAL Steam Blown Mineral Wool is specially designed for use in Tompkins Oxygen Plants and in all those industries where maximum importance is placed on efficiency, low combustible (and) content, high packing density and ability to hold shape when "tumbling" through for repairs. It is efficient for low temperature installations down to -300 F.

Eagle-Picker H-4 SPECIAL Steam Blown Mineral Wool, because of its unique manufacture and because of its unique properties, not only meets but actually exceeds the demands of liquid oxygen plant operations. In these applications, the presence of organic matter in any form is a serious matter. To insure the purity of these installations, Eagle-Picker H-4 SPECIAL Steam Blown Mineral Wool is processed so as to limit the residual organic content to a maximum of 0.2%.

In actual installations, this H-4 SPECIAL Mineral Wool is packed and tamped down to a density of 14.0 lb per cu ft. (as lighter than could be obtained with ordinary spun mineral wool). Its high density and fine fibers *trap* *air* *in* *voids*, preventing "tumbling" right through the insulation for inspection and any needed equipment repairs.

Recommended uses

Eagle-Picker H-4 SPECIAL Steam Blown Mineral Wool is selling well everywhere in a variety of oxygen applications. Known places, where the outstanding characteristics of Eagle-Picker H-4 SPECIAL Steam Blown Mineral Wool tend to stand out, are the following:

- 1 Tompkins oxygen production for use in steel mills.
- 2 Production of high purity oxygen for gaseous missile and rocket installations.

H-4 product data

Recommended Temperature use . . . to -300 F and below
Bulk Density of products of

lb./cu. ft.	lb./cu. ft.	Temp.
20	1.18	11.0
25	1.75	12.2
30	2.38	13.7
35	3.02	15.1
40	3.69	16.9
45	4.38	18.5
50	5.08	19.8
55	5.78	20.3

Recommended Density (approx.)
Thermal conductivity at 32 F and
a density of 15.5 lb per cu ft

Thermal conductivity at 32 F and
a density of 15.5 lb per cu ft

Thermal conductivity at 32 F and
a density of 15.5 lb per cu ft

Thermal conductivity at 32 F and
a density of 15.5 lb per cu ft

481461

Other EAGLE-PICHER PROTECTIVE COATINGS and SEALS

product	features	coverage	packaging
STATALAC an efficient coating or non-leaching type mastic	For temperatures to 400 F or 500 F. An effective boiler wall coating for reducing air infiltration. Makes boiler settings airtight. Excellent vapor barrier. Stays flexible and pliable when used at recommended temperatures. Available in two grades: Standard and High Temperature. Meets Military Spec. MIL-S-17377.	Vol coverage approximately 12 sq ft per gal applied 1/2 in. thick, de- pending on the surface to be covered.	5, 30 and 55-gal drums. Schematic weight 10 lb per gal.
SPRAY-MASTIC an easy-to-use explosive dispersion mastic for spray, brush or trowel	For temperatures to 250 F. Protects insulation and structural mem- bers from weathering, corrosion and chemical attack. Easy to spray on. Cures to form a film to repel condensates or toxic or volatile hydro- carbons to evaporate or separate during application. Excellent stick- ability. It readily builds up to any desired thickness. Non-shrinkable. Unaffected by freezing. Oleo-free. Fast drying: dries to the touch in 4 hours. Gives good coverage. It may be polished.	Vol coverage 20 sq ft, 1/2 in. thick, per gal.	Packed in 5-gal pails, weighing approx. 46 lb and 54-gal steel drums weighing approx. 480 lb.
SWITCHER an anti- corrosion compound	For temperatures from 32 F to 150 F. Reduces corrosion on metal surfaces. Highly chlorinated and rust-inhibitive coating in plastic form. Can be applied by brush or spray bottle.	Vol coverage of 45 sq ft in 1/2 in. thick, dry-film. dry-film.	5, 30 and 55- gal containers weighing 55, 330 and 550 lb re- spectively.

481461

THE EAGLE-PICHER COMPANY

INSULSEAL PROTECTIVE COATING



For temperatures to 450 F

Eagle-Picher INSULSEAL works evenly under the toughest conditions because it does not "flow." Because it flows so smoothly and evenly, *uniform coverage and proper thickness* are more readily secured. It contains no toxic or volatile hydrocarbons to evaporate during application. It is a tough, weather-proof protective coating for insulation. It provides protection against vibration and punctures, safeguards the insulation from weather. It seals insulation against air infiltration, rain, snow, or steam, yet permits the passage of water vapor.

INSULSEAL is available. The surface may be coated with bare or spalled without interfering the insulation in any way... an important factor in calculations where heat losses and good appearance are important.

It has long been known it does not rot, leak, or pull loose as other coatings often do. Temperature and chemical resistance are outstanding under normal conditions in temperatures. It will not scale or peel. Its strength is not reduced or permanently INSULSEAL, both in "free" when subjected to accidental damage or pressure.

INSULSEAL comes ready mixed and is quickly and easily applied. Only small amount is required to perform a thorough satisfactory application. It will not run or sag on vertical surfaces.

Application



INSULSEAL is suitable for all insulation surfaces when the temperature of the surface does not exceed 450 F.

It is easy to work since it is the only material required. It is not necessary to stock pipes and other items such as are necessary for the application of most finishes.

INSULSEAL gives a neat appearance. It dries to a smooth, flat film on either hot or cold surfaces. Although not necessary, it may be painted with asphalt base paints to match surroundings, or to identify pipe lines or other equipment.

COVERTING

Covert it 1/2 in. thick per 100 lb wet concrete. Virtually all the material may be used to insure there is no scaling or flaking.

packaging

INSULSEAL is available in two containers: INSULSEAL Summer (S) and INSULSEAL Winter (W). Summer container is used where INSULSEAL dries before being subjected to freezing temperatures. INSULSEAL is packed in containers in weights of 50, 100, and 500 lb net.

Insulation that is aging during and applying is worth painting coat of INSULSEAL. and wherever they're needed, they should be a protective coat of INSULSEAL. Its use for this purpose is well known for its ability to prevent corrosion, scaling, and improve plant appearance. The reason INSULSEAL may be used in a protective coat for boiler steel is that it is a non-leaching mastic. It is not a "dry" product. Each and every container INSULSEAL is available in for the convenience to use the temperature under which it is to be applied.

When ordering Eagle-Picher INSULSEAL, be sure to specify the 100-lb. container INSULSEAL Summer (S) or INSULSEAL Winter (W).

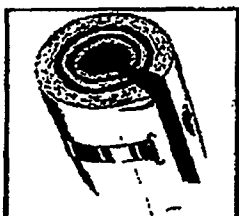
481461

other EAGLE-PICHER Industrial Insulation Specialties

with water resistant felts on the inner and outer surface of each layer. It is furnished in sections three feet long with canvas jacket, for both iron and copper pipes from $\frac{1}{4}$ in. thru 24 in. and is regularly made in Double $\frac{1}{2}$ in. and Double $\frac{3}{4}$ in. thickness. Other thicknesses can be made to order. Four inch (4 in.) wide collars for sealing end laps, as well as longitudinal strips on outer water resistant felt will be furnished on request.

U505

Non-Sweat Type Low Pressure Covering is used primarily for insulating chilled water and ice water pipe lines operating at temperatures between 40 F and 60 F. It is specially designed to keep water cold and prevent condensation causing damage from dripping. Recommended for cold service water piping under particularly high humidity conditions such as in laundries, kitchens, factories, textile and paper mills.

ANTI-FREEZE TYPE
LOW PRESSURE COVERING

Anti-Freeze Type Low Pressure Covering is a sand-filled structure made of two inner layers of canvas hair felt (each layer about $\frac{1}{4}$ in. thick) and an outer layer of insulating felt (wool felt) firmly cemented together. The inner surface is lined with asphalt-saturated organic felt.

U505

This Covering is used only to protect water, gas, oil and other pipes from freezing temperatures . . . reduces the danger of freezing of exposed piping. It should never be used on the water pipes to prevent sweating.

Single layer ($\frac{1}{4}$ in. thickness) is usually satisfactory for latitudes south of Washington, D. C., Cincinnati and St. Louis. Single layer 2 in. total thickness is recommended for northern latitudes.

Effective Protection: No insulation alone can prevent freezing if the water stands still long enough. Some water must be allowed to run during extended or idle periods.

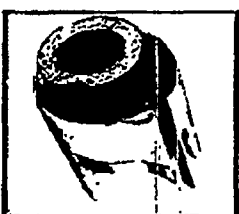
WOOL FELT TYPE
LOW PRESSURE COVERING

Wool Felt Type Low Pressure Covering is a sand-filled structure made of multiple layers of insulating "wool" insulating felt (wool felt) firmly cemented together. The inner surface is lined with asphalt-saturated organic felt. Covering is furnished with a white wrapper under the canvas.

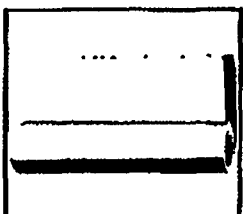
U105

An efficient economical pipe insulation for temperatures between 60 F and 225 F, keeping hot water hot and cold water cold, and preventing sweating of cold water service lines. For service water temperatures between 45 F and 60 F, integral jackets with properly sealed joints give adequate service for intermittent operation. For continuous operation a water vapor barrier integral jacket should be used. This covering is not designed for dual temperature systems.

More: In cold or mixed water line piping all conditions such as air temperature, humidity, type of insulation, or any extreme condition must be considered carefully to prevent extensive damage through the building.

NON-SWEAT TYPE
LOW PRESSURE COVERING

Non-Sweat Type Low Pressure Covering is a cold water pipe insulation used to keep water cold and prevent sweating. It is composed of multiple layers of insulating felt.

INDUSTRIAL INSULATION
SPECIALTIESFIRE & WATER RESISTING
JACKETING*

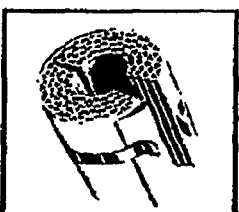
Fire & Water Resisting Jacketing is durable and weather-resistant, specially designed for the protection of outdoor insulated pipe lines where the danger of fire must be minimized. Ordinary roofing jackets are not satisfactory, because they burn, spread fire, and drip asphalt.

This Jacketing consists of a tough, substantial sheet of asphalt-saturated asbestos felt, over which is cemented on one side an insulating asbestos sheet. The complete sheet is reinforced with a fabric of tough, durable glass threads. This construction combines durability with very high tensile strength and remarkable resistance to melting and charring from water or slag incursions. It cements many "dead" asbestos layers to Jacketing for outdoor insulated pipe lines.

U505

Recommended for use in the power industries and in oil refineries where a absolute maximum resistance to fire and heat is required and protects the insulated surface from weather damage.

*Other types of Jacketing available, for pipes and vessels with temperature, Cleveland, Ohio.

AIR CELL TYPE
LOW PRESSURE COVERING

Air Cell can be used at temperatures up to 300 F. It is a lightweight asbestos paper structure comprising alternate layers of compressed and air asbestos paper cemented together. Compressions are $\frac{1}{4}$ in. deep, four piles per inch of thickness. Air Cell pipe coverings are normally furnished with white asbestos paper jackets or canvas jackets (10.2 yards per ft) and metal bands. Air Cell is the most economical insurable asbestos insulation.

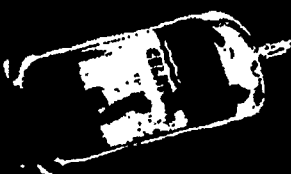
U505

Air Cell is designed primarily for indoor heating systems and process piping and equipment where steam does not exceed approximately 70 psi or 300 F. It should be used only where high efficiency, strength and durability are not as important as initial cost and application. Air Cell should not be used for outdoor or underground lines because it will not support many jackets or additional weight.

EAGLE-PICHER INSULATING and FINISHING CEMENTS

	features	coverage	packaging
"33" Finishing cement	For temperatures to 1800 F. Dries to form bright finish. Has exceptional adherence to masonry surfaces. Meets A.S.T.M. Spec. C-196.	Approximately 70 sq ft in 1½ in. thick per 100 lb.	50 lb. Kraft paper bags.
"43" Finishing cement	For temperatures to 1800 F. A hard, white finish coating for indoor insulation. Will not disintegrate. Light reflective of over 67%. Not affected by acids or vapors. Resists chalking. Will not crack or check even on pieces of small diameter. Meets A.S.T.M. Spec. C-194.	Approximately 110 sq ft ½ in. thick per 100 lb.	100-lb. Kraft paper bags.
"99" Building cement	For temperatures to 1000 F. A hard, durable outdoor cement with 65% light reflectance. Adheres to both hot and cold surfaces.	Approximately 110 sq ft ½ in. thick per 100 lb.	100-lb. Kraft and Kraft paper bags.
"106" Finishing cement	For temperatures to 1900 F. A quick-setting, fire-protective coating. Expressly manufactured as a protective finish for Eagle-Richer Fireproofing Cement. Provides maximum protection against disintegration under the high temperatures and otherwise severe conditions encountered during severe industrial fires.	80 sq ft ½ in. thick per 100 lb. dry.	100-lb. Kraft-wal Kraft paper bags.
"111" High temperature cement	For temperatures to 2300 F. A high refractory insulating material.	30 sq ft 1 in. thick per 100 lb.	100-lb. Kraft-wal Kraft paper bags.
"20" collected cement	For temperatures to 1000 F. Guaranteed minimum screening test of 0.0-1.15. Cul. Rec.	Covers 20 sq ft 1 in. thick per 100 lb.	100-lb. Kraft paper bags.

DIATOMACEOUS EARTH



For temperatures to 2000 F

CELATOM MN-87

A practically moisture free, chemically inert, refined diatomaceous earth aggregate with closely sized and graded particles designed to give high thermal resistance in the manufacture of insulating and fireproofing concretes and mortars, suitable refractories and dry insulating fill.

physical properties (typical)

Specific Gravity (70°F)	95
On 4 Mesh	4-10%
On 10 Mesh	46-55%
On 20 Mesh	66-85%
Apparent Dry Loose Density	36.2 lb per cu ft
Moisture Content	1.0% maximum
Absorptive Capacity (5% by weight)	90-110
Specific Gravity	2.35-2.35
Structure	5-5.5
Notes	Predominantly diatomaceous silica

chemical analysis (approximate)

Silica (SiO ₂)	92-95
Alumina (Al ₂ O ₃)	1-5%
Iron Oxide (Fe ₂ O ₃)	1-2%
Loss (CO ₂)	0.3%
Magnesia (MgO)	0.2%
Other Oxides	0.3%
Impurities	1-2%

US93

For dry insulating fill-in space between refractory brick and outer shell of high temperature equipment. Also spread over the top of tanks and covers. Can be mixed with either Portland or Limestone cement to make excellent insulating concrete.

packaging

Extruded Celatom MN-87 is packaged in 50-lb. bags with Kraft paper bags.

For temperatures to 1600 F

CELATOM MN-83

Celatom MN-83 is a loose dried, chemically inert, natural diatomaceous silica aggregate with rounded particle size gradation.

It provides high thermal resistance, and because of its inherent low thermal conductivity and ease of application, it has a wide variety of uses as a loose fill insulation where temperatures up to 1600 F are encountered.

physical properties (typical)

Specific Gravity (70°F)	95
On 4 Mesh	6-15%
On 10 Mesh	18-40%
On 20 Mesh	46-65%
Apparent Dry Loose Density	31-37 lb per cu ft
Moisture Content	6-8% maximum
Absorptive Capacity (5% by weight)	110-120
Specific Gravity	1.98-2.02
Structure	5-5.5
Notes	Predominantly diatomaceous silica

chemical analysis (approximate)

Silica (SiO ₂)	93-95
Alumina (Al ₂ O ₃)	4-5%
Iron Oxide (Fe ₂ O ₃)	1-5%
Loss (CO ₂)	0.1%
Magnesia (MgO)	0.1%
Other Oxides	0.1%
Impurities	5-6%

US93

The application of Celatom MN-83, finely packed loose of Celatom MN-87 except the latter being calcined, has a consequent higher temperature range up to approximately 2000 F as compared to 1600 F for the natural product, Celatom MN-83.

packaging

Extruded Celatom MN-83 is packaged in 50-lb. bags with Kraft paper bags.

INSULATION TEMPERATURES

to 1800°F.
temperatures to 1800°F.
temperatures to 6500°F.

ratings to 1700°F.
11300°F.
to 400°F.

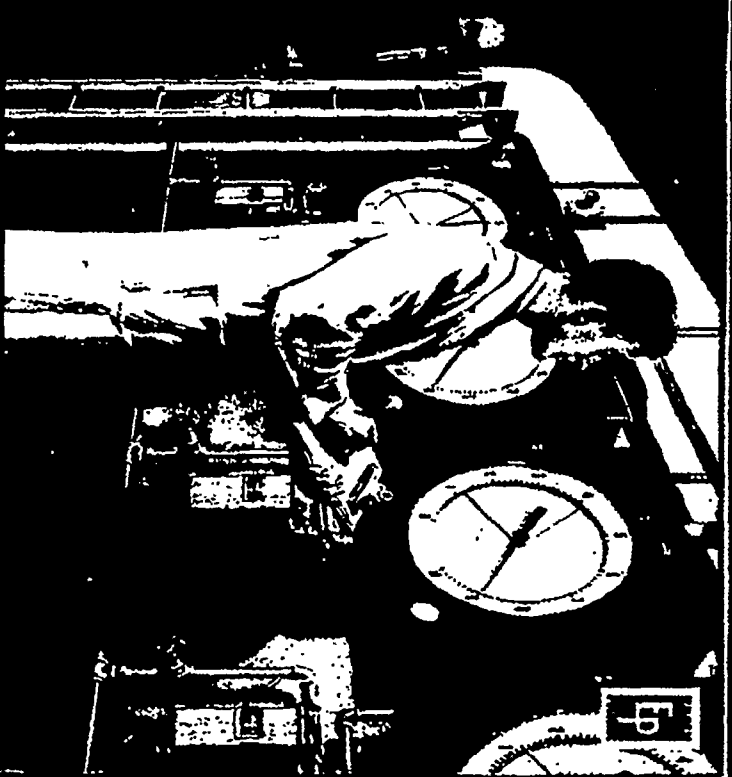
temperatures to 1200°F.

temperatures to 1000°F.

400°F.
450°F.
temperatures to 800°F.
temperatures to 1800°F.
temperatures to 1800°F.

COMPOUNDS

1500°F.



INDUSTRIAL INSULATION

for high and low temperatures

EAGLE
FP
PICHER

200029

INDUSTRIAL INSULATION

PV SUPERTEMP BLOCK

Single Thickness (1") and Double Thickness (2")

Double Thickness (2")

For temperatures to 1900 F.
Meets General Standard G3117
and ASTM Spec. C-375 — Class 2

Eagle-Picher PV SUPERTEMP blocks are manufactured through a completely new process utilizing special equipment and techniques of varying pressures and vacuum... a development of Eagle-Picher's own Research Laboratories and Engineering Dept. These precision finish, mineral wool blocks meet a specific demand in the heat insulating field for an efficient insulating block, combined with great tensile strength and the ability to withstand a full range of temperatures up to 1900 F.

They can be installed quickly and easily, and save pay for themselves in fuel savings and improved temperature control. Because of their lasting efficiency, you are assured of continuing savings.

Made primarily from high temperature mineral wool, these blocks have extremely low thermal conductivity, so essential to reduced operating costs. They are easily cut with a knife to fit irregular surfaces, yet they are strong enough to hold up under normal handling and usage. Ease of application results here on par with it.

recommended thicknesses

TEMPERATURE	THICKNESS
900-1100 F.	1-1/2 in.
1100-1200 F.	2 in.
1200-1300 F.	3 in.
1300-1400 F.	4 in.
1400-1500 F.	4 1/2 in.
1500-1600 F.	5 in.
1600-1700 F.	5 1/2 in.
1700-1800 F.	6 in.
Over 1800 F.	6 1/2 in.

Because they meet the demands in all operating temperatures up to 1900 F., only one type block is needed.

Their light weight and low density facilitates handling and installation in presence of restricted space. They are ideal to high efficiency. They require only minimum refractory, single layer construction minimizes application cost and increases efficiency.

PV SUPERTEMP blocks resist moisture. They are as permeable as only mineral wool can be! They do not disintegrate or lose their efficiency under service for which they are recommended. They are suitable for use with creosote refractories.

recommended uses

Heat-treating
Tanks
Towers
Labs
Ovens
Boiler Walls
Adding Tanks
Kilns in Glass and Ceramic Industries

packaging

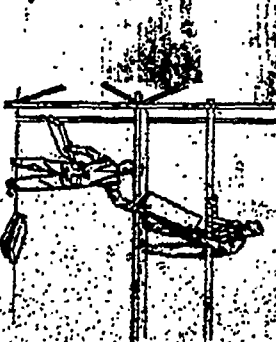
THICKNESS	100 LBS. NET WEIGHT		200 LBS. NET WEIGHT	
	1 in.	2 in.	1 in.	2 in.
1 1/2 in.	41	41	41	41
2 in.	41	41	41	41
3 in.	41	41	41	41
4 in.	41	41	41	41
4 1/2 in.	41	41	41	41
5 in.	41	41	41	41
5 1/2 in.	41	41	41	41
6 in.	41	41	41	41

Noted in design, completed conditions.

applications



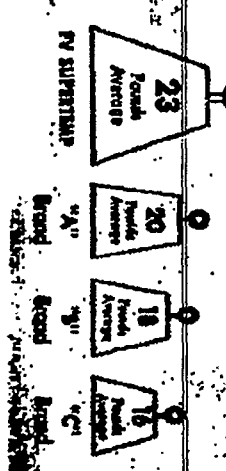
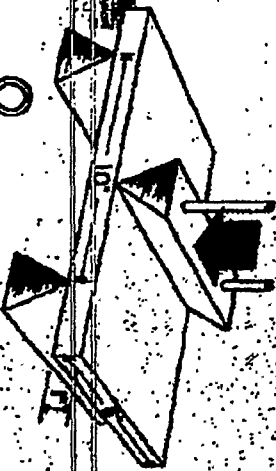
Single Thickness (1") and Double Thickness (2")



Single Thickness (1") and Double Thickness (2")

comparative strength of PV SUPERTEMP

...exceeds other brands



properties

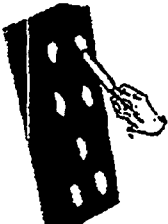
Density	28 lb per cu ft average
Service Temp.	Up to 1900 F.
Maximum Allowable	Resistivity all
Chemicals in Use	Does not cause or
	corrosion
The resistance	Unaffected
Under all types	1.8%
at 1900 F.	at 1900 F.
Loss in weight at 1900 F.	2%
Minimum of rupture	23.0 lb. per sq. in.
Resisting strength	19 lb. per sq. in.
Standard Sizes	18 in. and 24 in.
Width	6 in. and 12 in.
Thickness	1 in. to 6 in. in 1/2 in. increments. Also available in 3 in. increments.

thermal conductivity

Thermal conductivity	0.012 per inch per sq ft per ft per ft
300 deg Mean Temp.	.25
400 - - - - -	.30
500 - - - - -	.35
600 - - - - -	.40
700 - - - - -	.45

EAGLE-PICHER INSUL-STIC

a superior insulation additive



Eagle-Picher INSUL-STIC is a portland cement additive used to improve the efficiency of PV SUPERTEMP blocks. It is not only improves the application, but also eliminates the need for drying temporary mechanical fastening devices. On smooth surfaces, 50 lb are required per 100 sq ft on rough surfaces, 75 lb per 100 sq ft. Eagle-Picher INSUL-STIC is furnished in 60, 37.5 and 22.5 lb net weight containers. Eagle-Picher Dept. Spec. E-3-C-32.

THE EAGLE-PICHER COMPANY

60-375

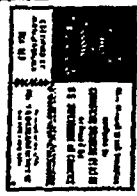
SUPER "66"

THE ORIGINAL RUST-INHIBITIVE INSULATING CEMENT

INDUSTRIAL INSULATION



SUPER "66" INSULATING CEMENT



For temperatures to 1800 F
Meets Commercial Standard CS117
and ASTM, Spec. C105

Example: SUPER "66" is highly efficient, durable, all purpose insulating cement for temperatures up to 1800 F can be applied to hot or cold surfaces, flat, curved or irregular shaped with equal ease. Its unusual *adhesiveness* makes it the ideal insulating cement. SUPER "66" is the best for uniform thicknesses and smoothness.

Non-toxic - In addition to its natural non-toxic properties, derived from Eagle-Picher Mineral Wool, SUPER "66" contains an added rust-inhibitor. When properly applied to an iron or steel surface, it will give additional protection against corrosion.

All purpose - Eagle-Picher SUPER "66" is actually an all-purpose insulating material. It is designed to serve under a full range of temperatures up to 1800 F, and can be applied to any heated equipment in this range. Minimum working limits of 25 degrees, minimum is the need of keeping on hand many other varied types of insulations which may be used only under limited conditions.

Resistant - If exposed to temperatures up to 1300 F, it is recommended for a can be removed from the equipment, mixed with water, and used again. This is important especially where frequent maintenance work on equipment is necessary.

High coverage - SUPER "66" provides unusually high coverage making it most economical to use. Its coverage is approximately 10 sq. ft. (1 cu. ft.) per 100 lb.

Easy to apply - No special tools required, windows and can be done easily and quickly. Its crew and speed of application.

vision means much less time out of service and a quicker, more thorough insulating job on new equipment.

"Springs half" answer - One of the most important features of this superior insulating cement is its remarkable "springing half" feature that provides outstanding insulating efficiency. When dry, the entire thickness of the insulation is honeycombed with small, uniform cells, each containing thousands of tiny "dead" air cells - one of the most effective heat barriers known. This means maximum heat savings as well as lower temperature control.

Protecting

Shipped in 50 lb. Multi-wall Kraft paper bags.

Physical Properties

Service Temperature	Up to 1800 F
Dry Coverage	Approx. 10 sq. ft. (1 cu. ft.) per 100 lb.
Volume Shrinkage (wet to dry)	22-24 lb per cu ft.
Adhesive Strength to Steel	14 psi
Compressive Strength	None
Tensile Strength	14 psi
Resistance to Salt	Excellent
Heat Resistance	Up to 1800 F
Thermal Expansion (1 cu ft. per cu ft. per 100 F)	0.40
Thermal Conductivity (1 cu ft. per cu ft. per 100 F)	0.71
Weight	100 lb.

MIXING AND APPLYING SUPER "66"
Because of its plasticity, uniformity and adhesiveness, SUPER "66" is more easily mixed and applied than many other types of cement. Only a few simple rules are necessary to secure economical, yet highly efficient, insulation.

- (1) Thoroughly clean surfaces to be insulated of all dirt, paint, oil and loose scale.
- (2) Depending upon surface to be covered, prepare Eagle-Picher SUPER "66" by adding approximately 12 gal. of clean, fresh water to 50 lb. dry cement.
- (3) No scaling is required. The cement should be wet enough to provide the correct adhesiveness and to make application easy.

- (4) Use the "spraying" method for the initial coat, then apply the material by hand so that a spotty appearance is effected. Then fill in between these "spots" to give a completely covered surface.
- (5) The initial coat should be applied to a thickness of 1/2 to 3/4 in. and permitted to dry. Subsequent coats of the same thickness should be applied until desired thickness is obtained. The final coat to be troweled to a smooth surface.
- (6) The work can be considerably expedited if heat is provided in the equipment during the application.
- (7) Allow each coat to become dry before applying the succeeding coat.

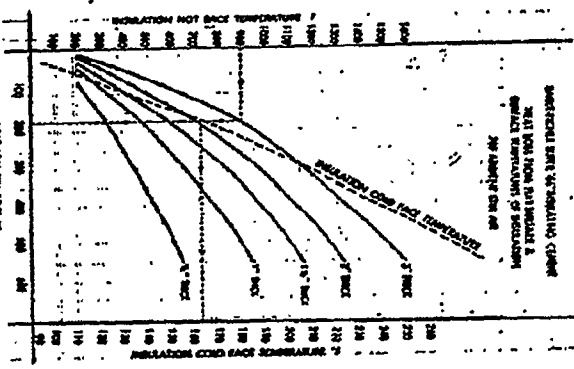
HEAT LOSS CHART (LEFT)

To illustrate Heat Loss when Hot Face Temperature is 1000 F.
From Insulation Hot Face Temperature (1000 F) read across to Thickness of Insulation curve (1 in.). From point of intersection, read down to Heat Loss (185 Btu).

To illustrate Cold Face Temperature when Hot Face Loss is known.
From known Heat Loss (185 Btu) read up to Insulation Cold Face Temperature curve. From point of intersection, read across to Insulation Cold Face Temperature (165 F).

A FEW RECOMMENDED USES

Boiler drums	Exhaustors	Chemical factories
Boiler heads	Incinerators	Water works
Boiler shells	Boilers, hot air	Steam generators
Boiler settings	Heating, venting	Scrubbers
Turbines	On-site drying	Process areas in
Compressors	Insulating	Landfills
Pumps	Heat exchangers	Paper mill roll ends
Valves and fittings	Storage tanks	Digesters
Feedwater heaters	Refrigerators, oil, gas	Air preheaters
Heat exchangers	and chemical	Ammonia gas cools



THE EAGLE-PICHER COMPANY

H-4 SPECIAL

STEAM BLOWN MINERAL WOOL

When Tensilebond is applied to the interior of a tank, it is critical for low temperature installations down to -100°F .

Because of its unique formulation and because of its inherent properties, not only must it absolutely satisfy the demands of liquid oxygen plant operations. In these applications, the presence of organic matter in any form is a serious matter. To insure the safety of these installations, Blake-Parker H-4 SPECIAL Steam Power Mineral Wool is produced so as to limit the residual organic content to a minimum of 0.1%.

The silverfish-like, blue, 11-12 ft. Silver Lateral Word is pulled and tugged down to a density of 180 lb per cu ft, far higher than could be obtained with ordinary spun mineral wool. Its high density and low thermal *U* help keep it in position, preventing crumbling, sagging through the insulation too, invasion and any needed equipment repair.

English: 1987 11-1 SPEC IAL, Seem Hlenn Alenn Wood n
gating while asleep in a variety of typographic styles
times. Known for their, while the underlying character
ivity of English: 1987 11-1 SPEC IAL, Seem Hlenn Alenn
red Wood can be used as a starting point, as the following

H-4 product data

Reestimated Time: after we to you if need before
Public University at properties of

λ	b	$\frac{d\lambda}{dt}$
26	.078	0.19
40	.138	0.22
50	.173	0.27
60	.218	0.34
75	.32	0.49
100	.604	0.85
125	.860	0.98
150	1.04	1.03
175	1.23	1.05

Ketone bodies (acetoac.,)
Thermal stability at 80° F. gives
a density of 1.03 lbs per cu ft.

South of curtain
pill & shoe

6. Considerable finger work
 7. After knee in cold room with a fault
 already cut 15.5 lbs per cut
 8. After knee in 20 lbs with a fault
 already cut 15.5 lbs per cut
 9. After knee in 20 lbs with a fault
 already cut 15.5 lbs per cut

**Other EAGLE-PICHER
FLAT and LOOSE MATERIALS**

product	features	packaging
77 MINI COVERING	Easy to install, pre-stretched pipe covering for temperatures to 1200 F., seals metal ducts, is designed to fit the entire circumference of the pipe to be insulated. Provides excellent operating temperatures ranging from -100 to 500 F. and readily pops for theft through its elasticity. Fire-retardant. Water-repellant. Readily cut on the job with ordinary metal shears. Gives virtually permanent protection. Meets A.S.T.M. Spec. C-310	Available in 2 ft. lengths for 1 to 12 in., OD, and 14 to 30 in., OD, 1 to 4 in. thick in 1/2 in. increments. Other sizes and thicknesses are available on special order.
FLXMARK Protectocoated Insulation PIPE COVERING	A highly efficient, flexible pipe covering for use in insulating cold lines operating below 50 F. It resists bacteria, corrosion, melting, odor, vibration. Density about 4.15 per cu ft. When applied is available in thicknesses and properly impregnated, it may be used on refrigerated lines operating below freezing. Has a 400-degree temperature range. Low thermal conductivity. Comes with flameproofed cotton cloth. Cut to size of territory easy to apply.	Packed in 27 in. x 26 in. x 24 in. fibboard cartons, containing 3 ft lengths, fast cut to proper width.
MINERAL WOLCON SPUN WOOL	For temperatures to 600 F. Non-combustible. Water-repellant, does not absorb moisture or water. Chemically treated has a pH range of 7.0 to 8.0. Comes in 2.5, 3, and 4 lb. densities. Other densities available on special order. Easy to apply. Meets Commercial Standard CS105 and Federal Specs. HH-1-503 and HH-4-542, and A.S.T.M. Specs. C266 Type 2-Class 3, 4, 5 and C383-Type 2-Class 3, 4, 5.	Available in densities 12 and 24 lb. x 24, 30, 36, and 48 lb. in thickness 1 in. to 4 in. inclusive by 1/2 in. increments. Packed in 30 in. x 24 in. x 24 in. cartons.
MINERAL WOOL WIL	For temperatures to 1200 F. Does not break down, disintegrate, or lose its insulating efficiency. Available in two types: Type "H-3" — A loose batting wool for ovens, furnaces, boiler walls, and similar purposes where bulk insulation is required. Type "7-8" — A graduated battening wool for use wherever a packed type battens is desired. It is easily applied and is especially suitable for filling irregular spaces. Light in weight, more coverage per lb. Resistant to burn. Low thermal conductivity at a mean temperature of 350 F. It is approximately 0.47 Btu per in. per sq. ft. per deg. F. per in. This value will vary a small amount, depending upon the density at which it is installed. Meets Commercial Standard CS105.	Packed in 2.5 or 4 lb. kraft paper bags.

॥३॥

INSULSEAL PROTECTIVE COATING

[illegible]

ENR/SLEAT is available. The surface may be worked down with hose or sponges without injuring the insulation in any way... all important factors in establishments where chisellers and good operators are important.

It is also being featured in a new not in, it's, as well have as each surface of the day. Toughness and elasticity prevent it from cracking under normal stresses in temperature. It will not wear or peel. It strongly resist wetting or painting. INVALUABLE tends to "give" when subjected to accidental bumps or impacts.

INCO-SIL[®] comes ready mixed and is quickly and easily applied. Only moderate heat is required to perform a thoroughly satisfactory application. It will not run or sag on vertical surfaces.

explicación



INSULSEAL is suitable for all insulation surfaces when the temperature of the surfaces does not exceed 450 F.

It is easy to slack since it is the only material required. It is not necessary to slack joints and other items such as are necessary for the application of most finishes.

INSULIFAL gives a neat appearance. It shines to a smooth, rich black on either hot or cold surfaces. Although not necessary, it may be painted with asphalt base paints to match surroundings or to identify pipe lines or other equipment.

coverage

5565 sq ft (1 1/2 in. thick per 100 sq yd coverage). Virtually all the material may be used because there is no culling or fillings.

puckngling

INSULSIAL is available in two concentrations: INSULSIAL, Summer (S) and INSULSIAL, Winter (W). Summer concentrate is used where INSULSIAL dries before being subjected to freezing temperatures. INSULSIAL is packed in containers in weights of 50, 100, and 500 lb net.

[illegible]

When ordering Intra-Span HYDROSEAL, be sure to specify the cam. Money required. HYDROSEAL Systems 831 or HYDROSEAL Windows 4441.

PROTECTIVE COATINGS and SEALS

product	features	coverage	packaging
STATALAC an efficient cohesive or penetrating type mastic	For temperatures to 400 F or 500 F. An effective boiler wall coating for retarding oil infiltration. Makes boiler settings lightweight. Excellent vapor barrier. Stays flexible and pliable when used at recommended temperatures. Available in two grades: Standard and High Temperature. Meets Military Spec. MIL-S-17337.	Wet coverage approximately 12 sq ft per gal applied 1/4 in. thick, de- pending on the surface to be covered.	5, 30 and 55-gal drums. Static weights 10 lb per gal.
SPRAY-PLASTIC an easy-to-use asphaltic disposition mastic for spray, brush or trowel	For temperatures to 250 F. Protects insulation and structural mem- bers from weathering, corrosion and chemical attack. Easy to spray on. Clean to walk upon. Safe to apply. Contains no toxic or volatile hydro- carbons to evaporate or separate during application. Excellent stick- ability. It readily builds up to any desired thickness. Durable/bulbous. Unaffected by freezing. Odorless. Fast drying; dries to the touch in 4 hours. Gives good coverage. It may be painted.	Wet coverage 20 sq ft, 1/2 in. thick, per gal.	Packed in 5-gal pails weighing approx. 46 lb and 54-gal steel drums weighing approx. 480 lb.
SWITCHKICK an anti- condensa- tion compound	For temperatures from 32 F to 150 F. Reduces condensation on cold surfaces. Highly adherent and reliable when coating in mastic form. Can be applied by trowel or poly turbine.	Wet coverage of 45 sq ft 1/4 in. thick in any clean, dry surface.	5 1/2, 32 and 55 gal containers weighing 55, 330 and 550 lb re- spectively.

2588

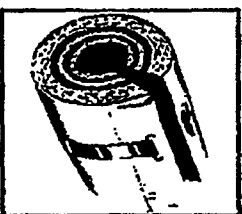
THE FAUL-PICHER COMPANY

other EAGLE-PICHER Industrial Insulation Specialties

with water resistant felt on the inner and outer surface of each layer. It is furnished in sections three feet long with canvas jacket for both inner and outer pipes from 1/2 in. thru 24 in. and is regally made in Double 1/2 in. and Double 1/2 in. thickness. Other thicknesses can be made to order. Four inch (4 in.) wide rollers for sealing end laps, as well as longitudinal laps on outer water resistant felt will be furnished on request.

US03

Non-Sweat Type Low Pressure Covering is used primarily for insulating chilled water and ice water pipe lines operating at temperatures between 40 F and 60 F. It is specially designed to keep water cold and prevent condensation causing damage from dripping. It is recommended for cold service water piping under particularly high humidity conditions such as in laundries, bathhouses, dormitories, textile and paper mills.

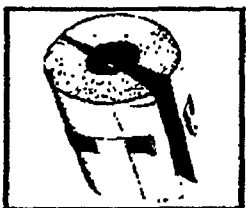


ANTI-FREEZE TYPE
LOW PRESSURE COVERING

Anti-Freeze Type Low Pressure Covering is a semi-rigid structure made of two inner layers of cattle hair felt (each layer about 1/2 in. thick) and an outer layer of insulating felt (wool felt) firmly cemented together. The inner surface is lined with asphalt-saturated organic felt.

US05

This covering is used only to protect water, gas, oil and other pipes from freezing temperatures. . . . reduces the danger of freezing of exposed piping. It should never be used on ice water pipes to prevent sweating. Single layer (1 1/2 in. thickness) is usually satisfactory for laundries such as Washington, D. C., Cincinnati and St. Louis. Single layer 2 in. total thickness is recommended for northern climates. Effective Protection: No insulation alone can prevent freezing if the water stands still long enough. Some water must be allowed to run during weekend or idle periods.



WOOL FELT TYPE
LOW PRESSURE COVERING

Wool Felt Type Low Pressure Covering is a semi-rigid structure made of multiple layers of industrial "dry" insulating felt (wool felt) firmly cemented together. The inner surface is lined with asphalt-saturated organic felt. Covering is furnished with a white wrapper under the canvas.

US04

An efficient economical pipe insulation for temperatures between 60 F and 225 F, keeping hot water hot and cold water cold, and preventing sweating of cold water service lines. For service water temperatures between 45 F and 60 F, integral jackets with properly sealed joints give adequate service for intermittent operation. For continuous operation a water vapor barrier integral jacket should be used. This covering is not designed for deal temperature systems.

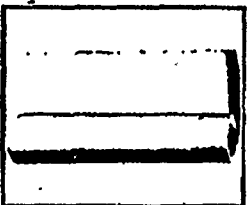
Note: In cold or chilled water line piping all conditions such as air temperature, humidity, type of insulation, or any extreme condition must be considered carefully to prevent excessive damage through the building.



NON-SWEAT TYPE
LOW PRESSURE COVERING

Non-Sweat Type Low Pressure Covering is a cold water pipe insulation used to keep water cold and prevent sweating. It is composed of multiple layers of insulating felt

INDUSTRIAL INSULATION
SPECIALTIES



FIRE & WATER RESISTING

JACKETING*

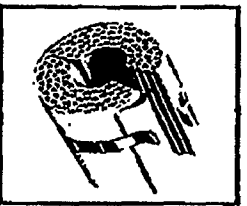
Fire & Water Resisting Jacketing is durable and resistant to wear, specifically designed for the protection of outdoor insulated pipe lines where the danger of fire must be minimized. Ordinary roofing jackets are not satisfactory, because they burn, spread fire, and drip asphalt.

This jacketing consists of a tough, substantial sheet of asphalt saturated asbestos felt, over which is cemented on one side an unweaved asbestos sheet. The complete sheet is reinforced with a fabric of tough, flexible glass threads. This construction combines flexibility with very high tensile strength and remarkable resistance to tearing and cutting from water vapor jacketing. It offers many "built-in" advantages in jacketing for outdoor insulated pipe lines.

US06

Recommended for use in the process industries and in refineries, where a already mentioned resistance to the physical and chemical action of the weather is required.

*Other types of jacketing products, for pipes and tanks, were developed, Goodrich, Inc., Ohio.



AIR CELL TYPE
LOW PRESSURE COVERING

Air Cell can be used at temperatures up to 300 F. It is a lightweight asbestos paper structure comprising alternate layers of corrugated and flat asbestos paper cemented together. Corrugations are 1/4 in. deep, four plies per inch of thickness. Air Cell pipe coverings are normally furnished with white asbestos paper jackets or canvas jackets (102 yards per lb) and metal hush. Air Cell is the most economical noncombustible asbestos insulation.

US07

Air Cell is designed primarily for outdoor heating systems and process piping and equipment where steam heat is not used or where high efficiency, strength and durability are not so important as insulation and application. Air Cell should be used for outdoor use and general low pressure use and support secondary jackets or without water

20-339

20-339

EAGLE-PICHER INSULATING and FINISHING CEMENTS

Product	Features	Coverage	Packaging
"33" Finishing cement	For temperatures to 1800 F. Dites to form bright finish. Has exceptional adherence to masonry surfaces. Meets A.S.T.M. Spec. C-196.	Approximately 20 sq ft 1 in. thick and per 100 lb.	50-lb Kraft paper bags.
"43" Finishing cement	For temperatures to 1000 F. A hard, white finish coating for indoor insulation. Will not deliquesce. Light reflectance of over 67%. Not affected by acids or vapors. Resists abrasion. Will not crack or check even on pipes of small diameter. Meets A.S.T.M. Spec. C-194.	Approximately 110 sq ft 1/4 in. thick per 100 lb.	100-lb Kraft paper bags.
"99" Finishing cement	For temperatures to 1000 F. A hard, durable abrasion cement with 65% light reflectance. Adheres to both hot and cold surfaces.	Approximately 110 sq ft 1/4 in. thick per 100 lb.	100-lb Kraft wall Kraft paper bags.
"106" Finishing cement	For temperatures to 1900 F. A quick-setting, heat-protective coating. Expressly manufactured as a protective finish for Eagle-Picher Fibreproofing Cement. Provides maximum protection against disintegration under the high temperatures and chemical action of molten metal during severe industrial heat.	80 sq ft 1/4 in. thick per 100 lb. dry.	100-lb Kraft-wall Kraft paper bags.
"111" High temperature cement	For temperatures to 2300 F. A high refractory insulating material.	30 sq ft 1 in. thick per 100 lb.	100-lb Kraft-wall Kraft paper bags.
"20" Cement	For temperatures to 1000 F. Quick-set minimum setting time of 0.5-1.15. Cure-free.	Covers 20 sq ft 1 in. thick per 100 lb.	100-lb Kraft paper bags.

See also []

DIATOMACEOUS EARTH



For temperatures to 2000 F

CELATOM MP-87

A practically moisture free, chemically inert, calcium diatomaceous earth aggregate with closely rigid and graded particles designed to give high thermal resistance in the manufacture of insulating and fireproofing cements and mortars, suitable refractories and dry insulating fill.

physical properties (typical)

Specific Gravity (Tyler)	0.95
On 4 Mesh	0.10%
On 6 Mesh	49.57%
On 20 Mesh	66.87%
Apparent Dry Loose Density	36-38 lb per cu ft
Moisture Content	1.0% maximum
Absorptive Capacity (5% by weight)	90-110
Specific Gravity	2.15-2.25
pH	5.5-6.5
Structure	Predominantly diatomaceous silica

chemical analysis (approximate)

Silica (SiO ₂)	91.0%
Alumina (Al ₂ O ₃)	1.0%
Iron Oxide (Fe ₂ O ₃)	1.8%
Loss (CO ₂)	0.3%
Alumina (Al ₂ O ₃)	0.3%
Other Oxides	0.3%
Insoluble Loss	1.0%

USDA

For dry insulating fill-in space between refractory bulk and outer shell of high temperature equipment. Also special over the top of kilns and ovens. Can be mixed with cement Portland or Limestone cement to make excellent insulating surface.

packaging

Eagle-Picher Celatom MP-87 is packaged in 50-lb Kraft wall Kraft paper bags.

See also []

For temperatures to 1600 F

CELATOM MN-83

Celatom MN-83 is a loose dried, chemically inert, natural diatomaceous silica aggregate with controlled particle size gradation.

It possesses high thermal resistance, and because of its inherent low thermal conductivity and ease of application, it has a wide variety of uses as a loose fill insulation where temperatures up to 1600 F are encountered.

physical properties (typical)

Specific Gravity (Tyler)	0.95
On 4 Mesh	0.10%
On 6 Mesh	49.57%
On 20 Mesh	66.87%
Apparent Dry Loose Density	31-37 lb per cu ft
Moisture Content	6.0% maximum
Absorptive Capacity (5% by weight)	100-120
Specific Gravity	1.93-2.02
pH	5.5-6.5
Structure	Predominantly diatomaceous silica

chemical analysis (approximate)

Silica (SiO ₂)	81.0%
Alumina (Al ₂ O ₃)	4.5%
Iron Oxide (Fe ₂ O ₃)	1.5%
Loss (CO ₂)	0.3%
Alumina (Al ₂ O ₃)	0.3%
Other Oxides	0.3%
Insoluble Loss	1.0%

USDA

The application of Celatom MN-83 closely parallel those of Celatom MP-87 except that the latter being calcined, has a consequent higher temperature range up to approximately 2000 F as compared to 1600 F for the natural product, Celatom MN-83.

packaging

Eagle-Picher Celatom MN-83 is packaged in 50-lb Kraft wall Kraft paper bags.

Temperature Range

INSULATING CEMENTS	SUPER "66" Insulating Cement	to 1800 F
	ON-CLITE Cement	to 1000 F
FLAT MATERIALS	"33" Insulating Cement	to 1800 F
	"111" High Temperature Cement	to 2300 F
PIPE COVERINGS	Fireproof Cement	to 2000 F
	"20" Adhesive Cement	to 1000 F
FILL MATERIALS	PV SUPERTEMP Block Insulation	to 1800 F
	HYLO Block Insulation	to 1600 F
COATINGS & ADHESIVES	SUPERGLAS Block Insulation	to 1000 F
	85% Magnesia Block Insulation	to 600 F
FINISHING CEMENTS	Mineral Wool Blanket Insulation	to 1200 F
	Mineral Wool Spun Felt	to 600 F
ANTI-CONDENSATION COMPOUND	SUPERGLAS Duct Insulation	to 750 F
	SUPERGLAS Equipped Insulation	to 400 F
INSULATION ACCESSORIES	TABLOCK Pipe Insulation	to 1200 F
	HYLO Pipe Insulation	to 1600 F
	85% Magnesia Pipe Insulation	to 600 F
	"77" Pipe Insulation	to 1200 F
	FLAMINOL Refractory Insulation	from 32 F to 400 F
	SUPERGLAS Pipe Insulation	(from -120 F to 100 F)
	"11-2" Loose Wool Insulation	to 1200 F
	"14-1" SPECIAL Sealed Stone Mineral Wool	to -300 F
	"18" Combed Wool Insulation	to 1200 F
	Diatherman Earth	to 2100 F
	STALASTIC Plastic Coating	to 400 F to 500 F
	SPRAY-MASTIC Protective Coating	to 250 F
	STALASTIC Protective Coating	to 300 F to 400 F
	INSULSEAL Protective Coating	to 450 F
	INSUL-SEAL (thinner adhesive) for block insulation	
	"45" Finishing Cement	to 1000 F
	"99" Finishing Cement	to 1000 F
	"100" Finishing Cement	to 1900 F
	SWIFT MMS Anti-Condensation Compound	from 32 F to 190 F
	Fire and Water Resisting Jacking	
	Anti-Freeze Type Low Pressure Coating	down to 60 F
	Washable Type Low Pressure Coating	to -60 F
	Non-Stick Type Low Pressure Coating	to 300 F
	As All Type Low Pressure Coating	

THE EAGLE-PICHER COMPANY
American Building Co., Cincinnati, Ohio



EAGLE-PICHER INDUSTRIES, INC.

high temperature fibers, boards, sheets and insulations—also specially shaped insulations for O.A.M. users
FOR APPLICATIONS UP TO 2200 F