EAGLE PICHER

THE EAGLE-PICHER SALES COMPANY

INDUSTRIAL INSULATION DEPARTMENT

AMERICAN BUILDING • CINCINNATI, OHIO

CHICAGO 2, ILLINOIS
1 North LaSalle Street

CINCINNATI 2, OHIO
American Building

JOPLIN, MISSOURI
E and Porter Streets

PITTSBURGH 22, PENNSYLVANIA
1501 Oliver Building

NEW YORK 17, NEW YORK
230 Lexington Avenue

FORM No. 1914

259 FD

SINCE EAGLE PICHER 1843

Superglas®

INDUSTRIAL INSULATION

383912

EAGLE-PICHER INDUSTRIES, INC. • FIBERS DEPARTMENT • CINCINNATI, OHIO 45202

EAGLE PICHER

THE EAGLE-PICHER SALES COMPANY

INDUSTRIAL INSULATION DEPARTMENT

AMERICAN BUILDING • CINCINNATI, OHIO

CHICAGO 2, ILLINOIS
3 North LaSalle Street

CINCINNATI 1, OHIO
American Building

JOPLIN, MISSOURI
C and Porter Streets

PITTSBURGH 22, PENNSYLVANIA
1501 Grant Building

NEW YORK 17, NEW YORK
420 Lexington Avenue

FORM No. 1914

259 10

SINCE EAGLE PICHER 1843

Superglas®

INDUSTRIAL INSULATION

383912

EAGLE-PICHER INDUSTRIES, INC. • FIBERS DEPARTMENT • CINCINNATI, OHIO 45202



EAGLE-PICHER INDUSTRIES, INC.

FIBERS DEPARTMENT

GENERAL SALES OFFICES — AMERICAN BUILDING, CINCINNATI, OHIO 45202

Since its corporate beginning in 1843 as a producer of lead chemicals, many changes have naturally been made in the organization now known as Eagle-Picher Industries, Inc., and listed on the New York Stock Exchange as EPI. Throughout this long period, however, there has been one constant and widely recognized Company policy . . . its dedication to pioneering research in the development and manufacture of products to serve industry . . . in its role as a "manufacturer's manufacturer."

Typical of this concept was the founding of Eagle-Picher's Insulating Fiber business in 1929. Beginning with the manufacture of loose mineral wool at that time, the group of insulating materials now available has grown to a comprehensive line of products serving a temperature range from -450°F to 2300°F.

This Data Book is furnished with the sincere hope that it will help you in selecting the most efficient and economical insulating materials to meet your requirements. We are eager to be of service to you; feel free to call on us for any additional data you may need.

TYPE: Block
TEMPERATURE: to 1900°F

EAGLE-PICHER

"PV" SUPERTEMP BLOCK



Description: Eagle-Picher "PV" Supertemp Block is composed of high temperature mineral fibers bonded with specially prepared binders to form a block insulation having optimum properties during both installation and service. Fibers are oriented to insure maximum strength and thermal efficiency. The blocks are "wet-sawed" by a patented process to provide precise dimensional tolerances and freedom from dust.

Uses: Recommended for direct application or refractory back-up insulation in petroleum and process units, power generation equipment, ovens, furnaces, kilns and other related equipment requiring an insulation that is economical, efficient and dimensionally stable.

Advantages:

Durability: Strong yet resilient, processed to maintain structural integrity during field application.

Absorption: Allows placement of castable refractories in direct contact with the block without degradation.

Installation: Can be impaled on pins without predrilling. Easily field fabricated with knife or saw. Standard sizes up to 24" x 36" permit rapid installation.

Physical Properties:

Service Temperature	to 1900°F.
Density	16 - 18 lbs./cu. ft.
Moisture Absorption	Nil
Fire Resistance	Incombustible
Corrosion	Does not cause or accelerate

Physical Properties (cont'd):

Linear Shrinkage	
at 1600°F.	2.0%
1800°F.	2.2%
Modulus of Rupture	40.0 lbs./sq. in.
Compressive Strength at 10% Deformation	2,600 lbs./sq. ft.

Thermal Conductivity:

Mean Temperature °F.	"K" (Btu-in./hr./sq. ft./°F.)
200	0.28
400	0.38
600	0.49
800	0.59
1000	0.69

383914

EAGLE-PICHER

"PV" SUPERTEMP BLOCK

Applicable Specifications:

Commercial Standard CS-117
ASTM C612-67T, Class D

Federal HH-I-558, Form A, Class 5

Packaging:

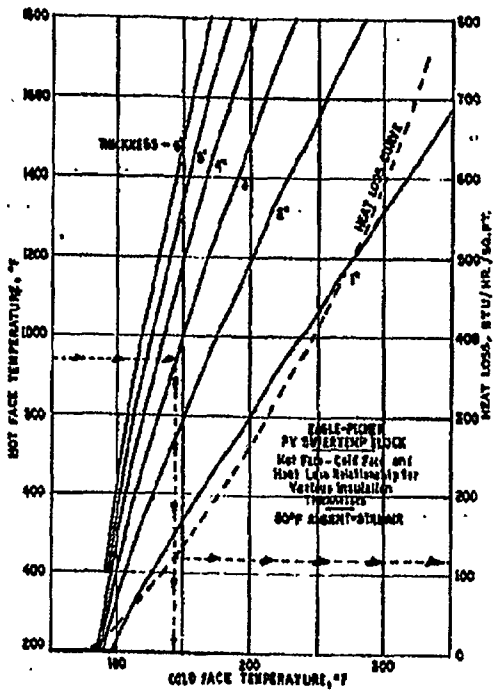
	Board Feet per Carton							
	1"	1½"	2"	2½"	3"	3½"	4"	4½"
6 x 18	48	45	48	45	45	42	48	40.5
12 x 18	48	45	48	45	45	42	48	40.5
6 x 36	48	45	48	45	45	42	48	40.5
12 x 36	48	45	48	45	45	42	48	40.5
18 x 36	54	54	54	45	54	47.25	54	40.5
24 x 36	48	54	48	45	54	42	48	54

Standard Sizes:

Thickness: 1" to 4½" in ½" increments
Width: 6", 12", 18" and 24"
Length: 18" and 36"

Special sizes and shapes are available and are quoted on request.

Heat Loss Chart:



383915

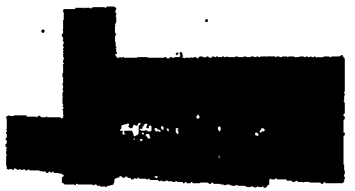
EAGLE PICHER
Since 1843
Manufactured by
EAGLE-PICHER INDUSTRIES, INC.
Fibers Department
American Building Cincinnati, Ohio 45202

©1968, Eagle-Picher Industries, Inc.
Printed in U.S.A. A5811

TYPE: Block
TEMPERATURE: to 2300°F

EAGLE-PICHER

CERAMIC FIBER BLOCK



Description:

Eagle-Picher Ceramic Block is composed of high purity aluminum silicate fibers bonded with specially prepared binders to produce a block insulation having optimum properties during both installation and service. The molded blocks are "wet-sawed" by a patented process to provide precise dimensional tolerances and freedom from dust.

Uses:

Recommended for use as an insulating refractory in areas where direct flame and or temperatures up to 2300°F. are expected. Typical applications include furnaces, ovens, kilns, combustion chambers and refractory back-up.

Advantages:

Density: Weight is drastically lower than other conventional materials suitable for service at 2300°F., resulting in rapid equipment heat-up and substantially lower heat storage.

Efficiency: Thermal conductivity is less than half that of 2300°F. insulating fire brick.

Application Cost: Standard sizes up to 24" x 36" permit appreciable reduction in installation costs.

Fabrication: Easily cut with a knife or saw to further reduce application costs.

Physical Properties:

Service Temperature	to 2300°F.
Density	13 - 17 lbs./cu. ft.
Moisture Absorption	Nil
Flue Resistance	Incombustible
Corrosiveness	Does not cause or accelerate
Linear Shrinkage (Soaking Heat)	%
at 1800°F.	0.0
2000°F.	0.5
2100°F.	0.75
2200°F.	1.00
2300°F.	1.25

Physical Properties (cont'd):

Ignition Loss	5.5%
Modulus of Rupture	55.0 lbs./sq. in.
Compressive Strength	
at 5.0% Deformation	3,500 lbs./sq. ft.
10.0% Deformation	4,000 lbs./sq. ft.

Thermal Conductivity:

Mean Temperature °F.	"k" (Btu-in./hr./sq. ft./°F.)
400	0.39
600	0.48
800	0.58
1000	0.70
1200	0.80
1400	0.91
1600	1.01

383916

EAGLE PICHER **Superglas® INSULATION**

EAGLE-PICHER

CERAMIC FIBER BLOCK

Standard Sizes:

Thickness: ½" to 4" in ½" increments
Length: 18" and 36"
Width: 6, 12, 18 and 24"
Tolerance: ± 1/16"

Other special sizes and shapes available and will be quoted on request.

Packaging:

Board Feed Per Carton

	1"	1½"	2"	2½"	3"	3½"	4"
6 x 18	48	45	48	45	45	42	48
12 x 18	48	45	48	45	45	42	48
6 x 36	48	45	48	45	45	42	48
12 x 36	48	45	48	45	45	42	48
18 x 36	54	54	54	45	54	47.25	54
24 x 36	48	54	48	45	54	42	48

383017

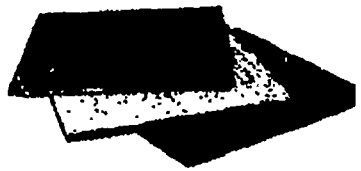
EAGLE PICHER Since 1843

Manufactured by
EAGLE-PICHER INDUSTRIES, INC.
Fibers Department
American Building Cincinnati, Ohio 45202

Form No. AP-113 ©1968, Eagle-Picher Industries, Inc. Printed in U.S.A. A5611

TYPE: Board
TEMPERATURE: to 1800°F.

EAGLE-PICHER Superglas® BOARD AND FELT



Description:

Eagle-Picher Superglas Board is manufactured from high temperature mineral fibers bonded with specially prepared inorganic binders and other organic additives. The fibers are subjected to a unique separation process that produces clean, "shot-free" fibers of fine diameter. These refined fibers are wet-felted on a specially designed mill to provide a material of superior insulating qualities. Eagle-Picher Superglas Felt exhibits a higher degree of toughness than Superglas Board, and is preferred in areas where the product may be subjected to undue bending stress as might be encountered in die cutting operations.

Uses:

Eagle-Picher Superglas Board and Felt are recommended for thermal insulation in equipment operating at temperatures to 1800°F. These applications include fabricated combustion chamber insulations, baffles, heat shields, gaskets for furnaces/boilers and other high temperature specialty uses.

Advantages:

Thermally Efficient: Use of highly refined, "shot-free" fiber, distributed in the most efficient manner, produces a board having superior thermal efficiency compared to any known conventional thermal insulation.

Economical: Designed to bridge the area of application between the insulating boards having service temperatures up to 1000°F. and the more expensive ceramic products.

Fabrication: Large, light weight sheets can be economically fabricated on the job or in the factory for special O.E.M. applications.

Physical Properties:

Service Temperature..... To 1800°F.
Density ..... Nominal 13 lbs./cu. ft.
Linear Shrinkage:
1200°F. ..... None
1600°F. 2.00%
Fire Resistance ..... Incombustible
Moisture Absorption ..... Negligible
Water Absorption ..... None
Corrosion..... Does not cause or accelerate

Thermal Conductivity:

Mean Temperature	"K"-Btu-in./hr./sq. ft./°F.
200°F.	.235
400°F.	.340
600°F.	.440
800°F.	.550

383018

EAGLE PICHER Superglas® INSULATION

EAGLE-PICHER
Superglas®
BOARD AND FELT

Applicable Specifications:
HH-I-564 – Form II, All Classes

Packaging:
Cartons

Standard Sizes:
Thickness: 1/8", 1/4", 3/8" and 1/2"
Width: 40"
Length: 36", 42" and 48"
Other sizes available on request.



Easily fabricated into desired shapes, either on-the-job or shop.

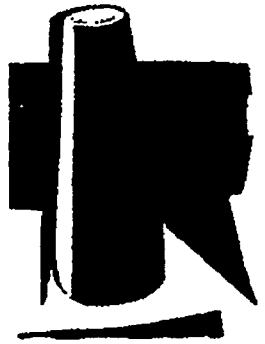
383919

EAGLE PICHER *Since 1843*
Manufactured by
EAGLE-PICHER INDUSTRIES, INC.
Fibers Department
American Building Cincinnati, Ohio 45202

©1968, Eagle-Picher Industries, Inc.
Printed in U.S.A. AI611

TYPE: Felt
TEMPERATURE: to 1800°F.

EAGLE-PICHER
Superglas®
MOLDABLE FELT



Description:
Eagle-Picher Superglas Moldable Felt is a pliable, high temperature insulating material designed for applications where a high degree of flexibility is desired during application. Moldable Felt is processed from fine, clean, inorganic fibers, bonded together with an organic/inorganic binder system which permits flexibility during application. After installation, curing of the felt is realized at temperatures above 100°F. As curing progresses with time and temperature, the molded form will permanently set to a rigid shape.

Uses:
Eagle-Picher Superglas Moldable Felt fulfills most requirements more economically and efficiently than other products currently available. Typical applications include combustion chamber insulation, expansion joints for furnaces and boilers, high temperature gaskets, and as a thermal stock absorber in foam glass insulation systems.

Advantages:
Application: The moldable characteristic of the product, together with the great ease with which it can be fabricated (pocket knife, die-cut, etc.), makes it exceptionally valuable for "on-the-job" installations, as well as shop fabrication.

Physical Properties:
Service Temperature ..... To 1800°F.
Density - as cured ... Nominal 13 lbs./cu. ft.
Linear Shrinkage:
at 1200°F. ..... None
at 1600°F. 2.0%
Shelf Life . 3 to 6 months at room temperature and storage in moisture controlled atmosphere is recommended.

Thermal Conductivity:

Mean Temperature	"K"-Btu-in./hr./sq. ft./°F.
200°F.	.235
400°F.	.340
600°F.	.440
800°F.	.550

Standard Sizes:
Thickness: 1/8", 1/4", 3/8" and 1/2"
Roll Width: 42"
Roll Length: 20'

Packaging:
Polyethylene sleeve and heavy-duty Kraft paper wrap within slotted wood crate or boxboard carton.

383920

EAGLE PICHER *Superglas*® INSULATION

383921

EAGLE PICHER

Since 1848

Manufactured by

EAGLE-PICHER INDUSTRIES, INC.

Fibers Department

American Building Cincinnati, Ohio 45202

Form No. AF-117

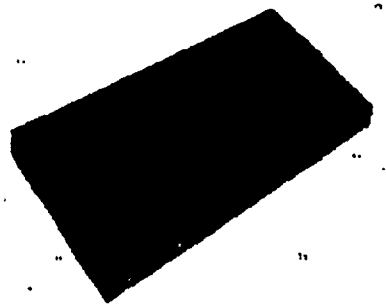
©1968, Eagle-Picher Industries, Inc.

Printed in U.S.A. A8611

TYPE: Board
TEMPERATURE: to 850°F

EAGLE-PICHER

MT® BOARDS



Description: Eagle-Picher MT Boards are composed of high temperature mineral fibers bonded with high heat resistant organic binders into a board form. Maximum fiber length and optimum fiber distribution are maintained to provide a board of high strength and insulating efficiency. At hot face temperatures above 450°F., partial dissipation of binder occurs; however, through proper binder selection and control, this dissipation does not alter the thermal efficiency of the product.

Uses: Designed for heated equipment operating at temperatures up to 850°F. Typical applications include boiler walls, ducts, furnaces, ovens, process vessels and tanks.

Advantages:

Hand-ability: Strong yet resilient, processed to maintain structural integrity during field application.

Installation: Light weight, tough, precision cut boards can be applied with minimum effort. Product resiliency allows joints to be closely meshed together to give, in effect, a continuous insulation. If desired, metal retainer mesh can be applied in roll form with overlapped edges to eliminate lacing. The board may be applied in double layers to give further assurance against heat loss through the joints.

Vibration: When properly applied the fibrous structure does not deteriorate under normal equipment vibration and operating temperature.

Physical Properties:

Service Temperature to 850°F.
Density
MT-4 ..... Nominal 4 lbs./cu. ft.
MT-6 ..... Nominal 6 lbs./cu. ft.
MT-8 ..... Nominal 8 lbs./cu. ft.
MT-10 ..... Nominal 10 lbs./cu. ft.

Physical Properties (cont'd):

Moisture Absorption ..... Nil
Water Absorption ..... None
Corrosiveness .... Does not cause or accelerate
Fire Resistance ..... Incombustible

Thermal Conductivity:

Mean Temperature	"K" Factor (Btu-in/hr./sq. ft./°F.) MT-4	MT-6	MT-8	MT-10
100	.230	.225	.220	.215
200	.290	.270	.255	.250
300	.365	.335	.315	.300
400	.460	.410	.385	.365
500	.565	.495	.470	.445

Standard Sizes:

Width: 24"
Length: 48"
*Thickness: MT-4, 6 & 8-1" to 4" in ½" increments
MT-10-1" to 3" in ½" increments

* for applications requiring more than 4" insulation, consult Eagle-Picher General Sales or Research Departments for recommendations.

383922

EAGLE PICHER

Superglas® INSULATION

EAGLE-PICHER

MT® BOARDS

Packaging:

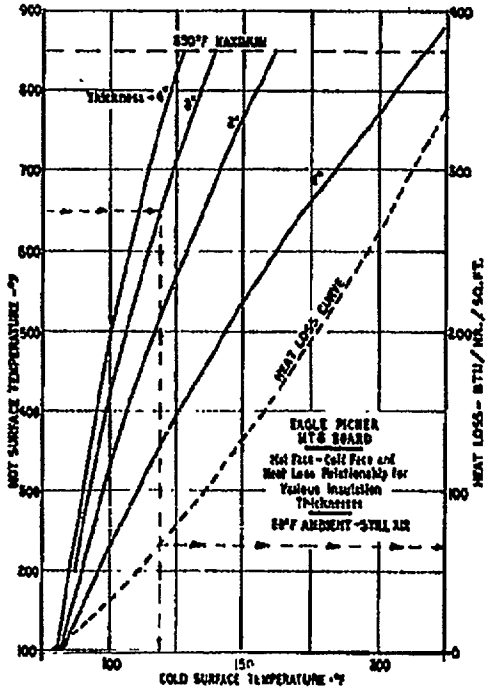
24" x 48" corrugated cartons

Thickness	Pieces Per Carton	SF Per Carton
1"	12	96
1½"	8	64
2"	6	48
2½"	6	48
3"	4	32
3½"	4	32
4"	3	24

Applicable Specifications:

Commercial Standard CS-105
ASTM Spec. C612-67T, Class B
Federal Spec. HH-I-558a, Form A, Class 1, 2&3.
Maritime Spec. 32-MA-3
32-MC-1

Heat Loss Chart:



383923

EAGLE PICHER — Since 1843

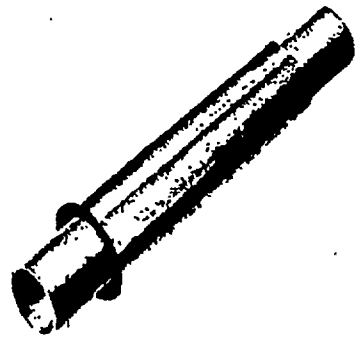
Manufactured by
EAGLE-PICHER INDUSTRIES, INC.
Fibers Department
American Building Cincinnati, Ohio 45202

©1968, Eagle-Picher Industries, Inc.
Printed in U.S.A. A5611

TYPE: Pipe Covering
TEMPERATURE: to 1000°F.

EAGLE-PICHER

ALUM-A-FELT



Description:

Eagle-Picher Alum-A-Felt represents a mineral fiber pipe insulation and aluminum jacketing completely factory-assembled in a single package unit ready for field application. The insulating layer is High Temperature Mineral Fiber Board, fabricated to fit each individual pipe size.

The integral aluminum jacket is pre-rolled with sufficient overlap allowance on the aluminum jacketing to provide for adequate weather sealing of both circumferential and longitudinal joints.

Uses:

Eagle-Picher Alum-A-Felt is recommended for use on steam lines, process lines, ducts, vessels and other cylindrical surfaces operating at temperatures to 1000°F.

Advantages:

Installation: Precision fabrication at the factory assures accurate fit and rapid application.

Economical: Factory pre-assembled jacketing and insulation means a one step application with a resultant reduction in installation costs.

Efficient: Lower "K" Factor results in reduced insulation thickness and lower material costs.

Physical Properties:

Service Temperature ..... 1 to 1000°F
Density (excluding jacket). Nominal 8 lb./cu. ft.
Moisture Absorption ..... Nil
Corrosion ..... Does not cause or accelerate
Fire Resistance ..... Incombustible

Thermal Conductivity:

Mean Temperature	"K"-Btu-in./hr.sq. ft./°F
100°F	.220
200°F	.255
300°F	.315
400°F	.385
500°F	.470

Jacketing Material:

Type: Aluminum
Alloy: Type T-3003 H14
Thickness: .016"
Finish: Embossed or plain

Other jacketing materials are available and quoted upon request.

Available Sizes:

½" to 30" pipe sizes
1, 1½, 2, 2½ and 3" Insulation Thickness
36" overall length (34" net coverage)

Applicable Specifications:

ASTM: C547-67
Federal: HH-I-558a, Form D, Type III, Class 13

383924

EAGLE PICHER — Superglas® INSULATION

383925

EAGLE PICHER

Since 1843

Manufactured by

EAGLE-PICHER INDUSTRIES, INC.

Fibers Department

American Building Cincinnati, Ohio 45202

Form No. AF-119

©1969 Eagle-Picher Industries, Inc.

Printed in U.S.A. 1968

TYPE: Pipe Covering

TEMPERATURE: to 1400° F.

EAGLE-PICHER

TAB-LOK



Description: Eagle-Picher Tab-Lok Pipe Covering is fabricated by securing high temperature mineral fibers between metal fabrics. The patented "TAB-LOK" closures are secured to the ends of the outside metal fabric and promote fast installation of the covering around the pipe. The interior metal fabric is applied in strips to offer necessary relief when the covering is wrapped around the pipe.

Uses: Eagle-Picher Tab-Lok is recommended for application on piping or other cylindrical vessels operating at temperatures up to 1400°F. Typical examples are super heated steam lines, furnace duct work and heat exchangers.

Advantages:

Installation: Tab-Lok closure allows quick attachment and snug fit of the covering.

Warehousing: Tab-Lok Pipe Insulation is shipped and stored flat to minimize transportation and in-plant costs.

Vibration: High temperature fiber will not cak down or settle under normal vibration at maximum service temperature.

"Joint Free": Resilient fiber core permits close adjustment of adjoining sections to form essentially a joint free construction.

Physical Properties:

Service Temperature..... To 1400°F.*
Density ..... Nominal 8 lbs./cu. ft.
Fire Resistance ..... Incombustible
Moisture Absorption ..... Nil
Corrosion ..... Does not cause or accelerate

*Stainless or Monel metal mesh recommended above 1200°F.

Thermal Conductivity:

Mean Temperature	"K"-Btu-in./hr./sq. ft./°F.
200°F	0.260
400°F.	0.385
600°F.	0.560

Standard Sizes:

Length: 2 Lineal Feet
Pipe Diameter: 3" to 30"
Thickness:

Pipe Size	Available Thickness
3"	1"-1½"-2"-2½" * * *
3½"	1"-1½"-2"-2½" * * *
4"	1"-1½"-2"-2½" * * *
5"	1"-1½"-2"-2½" * * *
6"	1"-1½"-2"-2½"-3" * *
8"	1"-1½"-2"-2½"-3"-3½"-4"
10"	1"-1½"-2"-2½"-3"-3½"-4"
12"	1"-1½"-2"-2½"-3"-3½"-4"
14"	1"-1½"-2"-2½"-3"-3½"-4"
16"	1"-1½"-2"-2½"-3"-3½"-4"
18"	1"-1½"-2"-2½"-3"-3½"-4"
20"	1"-1½"-2"-2½"-3"-3½"-4"
22" and Over	1"-1½"-2"-2½"-3"-3½"-4"

*Use double layer application.

EAGLE PICHER *Superglas*® INSULATION

383926

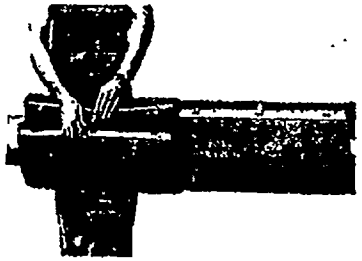
EAGLE-PICHER
TAB-LOK

Applicable Specifications:

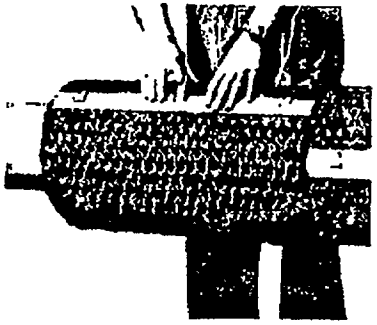
Federal: HH-I-558a, Form D, Type IV, Class 14 & 15
ASTM: C592-66T, Class I & II
Commercial Standard: CS-117

Packaging:

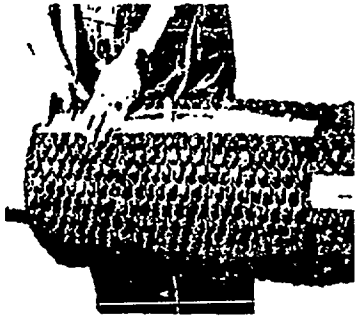
Shipped flat in cartons



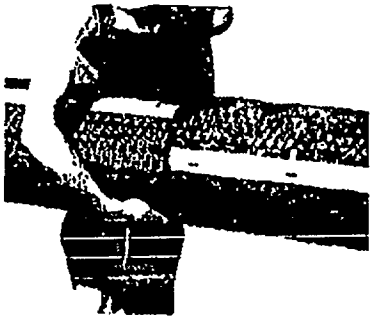
1. Since the center tab is longer than the two end tabs, it is slipped through the slot on the closure strip first and then bent over.



3. The center tab which had been serving a "holding action" is now pulled up tightly and bent over for maximum tightness.



2. With the center tab holding the TABLOK Pipe Covering in place, the two end tabs are pulled through the slots and secured.



4. A section of pipe TABLOK insulated; note the staggered way closure strips are arranged to permit close abutment and to prevent voids.

EAGLE PICHER

Since 1920

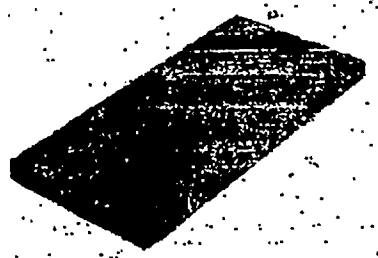
Manufactured by
EAGLE-PICHER INDUSTRIES, INC.
Fibers Department
American Building Cincinnati, Ohio 45202

383927

Form No. AF 111
© 1970 Eagle-Picher Industries, Inc.
Printed in U.S.A. 4/70

TYPE: Blanket
TEMPERATURE: to 1400°F*

EAGLE-PICHER
MINERAL FIBER BLANKETS



Description:

Eagle-Picher Mineral Fiber Blankets are manufactured from high temperature mineral fibers secured between various combinations of metal fabrics. The mineral fibers of the blanket are felted in a manner to assure proper fiber distribution for high insulating efficiency. Mineral Fiber Blankets without metal fabric, identified as Blanket Felt, are also available for applications where the material is to be retained by field applied metal mesh or jacketing.

Uses:

Eagle-Picher Mineral Fiber Blankets are recommended for use on heated equipment having surface contours or irregularities that make block or board type insulations difficult or impossible to install. Specially designed for application on boilers, process vessels, ovens, tanks and other related equipment operating at temperatures up to 1400°F.*

Advantages:

Efficient: A special felting process assures high thermal efficiency.

Thermal Stability: Will not lose insulating efficiency or fiber resiliency even at maximum equipment temperature to 1400°F.*

Installation: Flexibility, resiliency and large 2' x 8' sizes enable rapid installation on all surfaces. Blanket can be easily cut with hand shears on the job to fit irregular areas and laced together to form a tight, continuous layer of insulation.

Vibration: Will not break down or settle because of equipment vibration.

Thermal Stress: Resiliency of the fibers, even at high temperatures, prevents opening of joints or disintegration of the blanket when subjected to expansion and contraction of the equipment.

*For continuous service above 1200°F., we recommend special alloy fabric and tie wires be used on the hot surface.

Physical Properties:

Service Temperature	to 1400°F.*
Density	Nominal 8 lbs./cu. ft.
Water Absorption	None
Moisture Absorption	Nil
Fire Resistance	Incombustible
Corrosion	Does not cause or accelerate

Thermal Conductivity:

Mean Temperature °F.	"K" (Btu-in./hr./sq. ft./°F.)
100	.220
200	.268
300	.326
400	.403
500	.490
600	.586
700	.685
800	.792

Standard Sizes:

Width: 24"
Length: 48" or 96".
Thickness: 1" to 6" in ½" increments.

383928

EAGLE PICHER

Superglas® INSULATION

EAGLE-PICHER
MINERAL FIBER BLANKETS

Applicable Specifications:

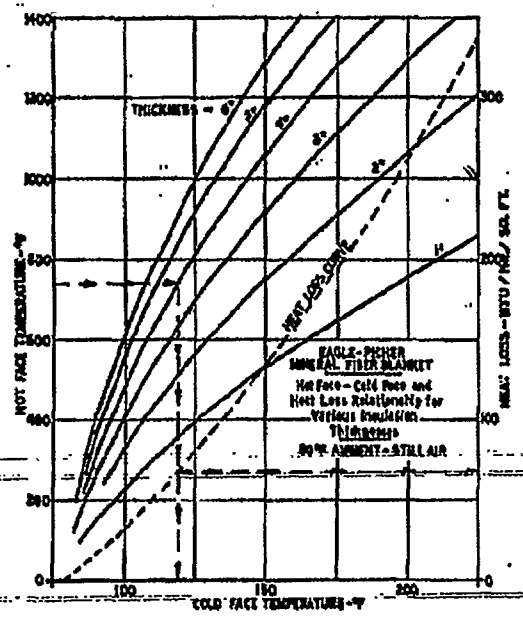
Commercial Standard CS-117
ASTM Spec. C592-66T, Class I & II
Federal Spec. HH-I-558a, Form C, Class 10-11
HH-I-558a, Form B, Type I
Class 6, 7 and 8 (No Metal Mesh)
Military MIL-I-2818B
Maritime 32-MA-1d
32-MA-1b (Style 100 density 6.0 lb/ft.^{3})

Available Styles:**

100	Unfaced Blanket Felt
100A	Glass Mat Facing One Side
200	1" Wire Mesh Both Sides
200A	Stucco Lath Both Sides
200B	1" Wire Mesh and Stucco Lath
201	Stucco Lath and Expanded Lath
201A	1" Wire and Expanded Lath
202	Expanded Lath on Both Sides
203	Stucco Lath and 3/8" Rib Lath
203A	Same as 203 Except Rib Turned Out
203B	1" Mesh and 3/8" Rib Lath
203C	Same as 203B Except Rib Turned Out

** Special sizes and types with monel or stainless steel fabrics are available and are quoted on request.

Heat Loss Chart:



383020

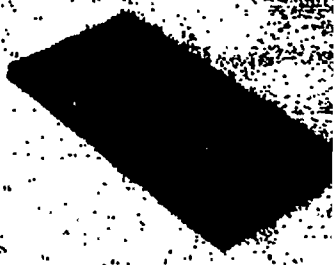
Since 1843

Manufactured by
EAGLE-PICHER INDUSTRIES, INC.
Fibers Department
American Building Cincinnati, Ohio 45202

Form No. AF-111 ©1968, Eagle-Picher Industries, Inc. Printed in U.S.A. A8611

TYPE: Blanket
TEMPERATURE: to 700°F.

EAGLE-PICHER
BONDED BLANKET



Description: Eagle-Picher Bonded Blanket is manufactured from high temperature mineral fibers, bonded with heat resistant organic binder. The Blankets are available with various metal fabrics, secured to one or both sides, to form a rigid Blanket. The mineral fibers are felted in a manner to ensure proper fiber distribution at designed insulating efficiency.

Uses: Eagle-Picher Bonded Blankets are especially suited for application on boilers, large process vessels, breechings and other related equipment operating at temperatures up to 700°F.

Advantages:

"Joint Free": The resiliency of the bonded blankets allows a tight and continuous layer of insulation. The metal fabrics can be laced together to insure joint free installation.

Installation: Large convenient size and light weight provide rapid installation at a minimum cost.

Vibration: High temperature mineral fiber will not break down or settle during normal equipment vibration.

Thermal Stress: Expansion and contraction of equipment during heating or cooling cycles do not adversely affect the resilient fiber of the bonded blanket.

Standard Sizes:

Width:	24"
Length:	48"
Thickness:	1" to 4" in ½" increments.

Packaging:

Cartons

Physical Properties:

Service Temperature	To 700°F.
Density	Nominal 6 lbs./cu. ft.
Water Absorption	None
Moisture Absorption	Nil
Fire Resistance	Incombustible
Corrosion	Does not cause or accelerate

Thermal Conductivity:

Mean Temperature	"K"-Btu-in./hr./sq. ft./°F.
100°F.	.225
200°F.	.270
300°F.	.335
400°F.	.410

Available Styles*:

B-100	Unfaced Bonded Board
B-200	1" Wire Mesh on Both Sides
B-201A	1" Wire Mesh and Expanded Lath
B-209	1" Wire Mesh on One Side Only
B201	Stucco Lath and Expanded Lath
B-210	Expanded Lath on One Side Only

* Other styles available, and prices are quoted on request.

383

Superglas® INSULATION

383931

Since 1843

Manufactured by

EAGLE-PICHER INDUSTRIES, INC.

Fibers Department

American Building Cincinnati, Ohio 45202

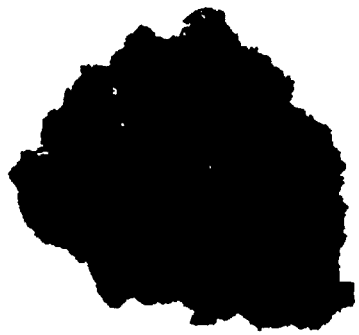
©1968, Eagle-Picher Industries, Inc.

Form No. AP-118

Printed in U.S.A. A9611

TYPE: Fiber
TEMPERATURE: to 1400°F

EAGLE-PICHER *Superglas* THERMAL INSULATING FIBERS



Description:

Eagle-Picher Superglas Thermal Insulating Fibers are mineral fibers having good oxidation resistance and high melting point. The fibers are treated to suppress dusting during installation. They are produced either in granulated or in loose form for installation by pouring or packing.

Uses:

Superglas Thermal Insulating Fibers are used in areas requiring a loose fill insulating material for service up to 1400°F.

Advantages:

Clean: As mentioned above, the fibers are treated to minimize dusting during installation.

Thermally Efficient: Bulk fibers may be packed to the proper density to achieve optimum thermal efficiency.

Highly Stable: Fibrous nature of this insulation prevents silting or settling of the material after its installation. In addition, the material will retain its packing density, form, and thermal conductivity even after a number of equipment transfers.

Available Forms:

Superglas H-2; loose fiber for hand packing
Superglas 7-B; granulated into pellets for pouring

Physical Properties:

Service Temperature ..... 1400°F
Installed Density ..... 7 - 8 lb./cu.ft.
(Recommended)

Physical Properties (cont'd)

Packed Density ..... 18.5 lb./cu.ft.
Combustible Content ..... Less than 0.5%
Corrosion ..... Does not cause or accelerate
Fire Resistance Rating ..... Incombustible

Packaging:

Furnace packed in 50-lb. paper bags.

Applicable Specifications:

Commercial Standard CS-105
Federal Spec. HH-I-521d, Type II – H-2 Fiber
Type III – 7-B Fiber

383931

EAGLE-PICHER *Superglas* INSULATION

383933

EAGLE PICHER

Since 1843

Manufactured by

EAGLE-PICHER INDUSTRIES, INC.

Fibers Department

American Building Cincinnati, Ohio 45202

Form No. AF-101

©1968, Eagle-Picher Industries, Inc.

Printed in U.S.A. A5011

TYPE: Fiber

TEMPERATURE: -450 to 1400°F

EAGLE-PICHER *Superglas*® H-4 CRYOGENIC FIBER



Description: Eagle-Picher Superglas H-4 Fiber is a mineral fiber containing an extremely low percentage of leachable organic material.

Uses: Superglas H-4 Cryogenic Fiber insulation is designed exclusively for the plant producing and storing liquid oxygen or other gases. The organic content of the fiber is controlled to reduce the potential hazards that arise from liquid oxygen spills or leaks that may contact the cryogenic insulation.

Advantages:

Easily Installed: 50-lb. compression-packed bags allow rapid material installation.

Low Maintenance: Fiber will "bridge" when installed allowing maintenance workers to tunnel through the fiber. Eliminates need of complete removal of insulation for spot checks of insulated equipment.

Physical Properties:

Service Temperature	-450°F to 1400°F
Installed Density (Depending on application technique)	11-17 lb/cu. ft.
Organic Content	0.15%
Fire Resistance Rating	Incombustible
Thermal Conductivity	0.020 Btu/sq. ft/ ft./hr./°F at 32°F

Packaging:

Pressure packed in 50-lb. multi-wall bags.

Applicable Specifications:

Federal Spec. HH-I-521d, Type II.

EAGLE PICHER *Superglas*® INSULATION

383934

383935

EAGLE PICHER

Since 1843

Manufactured by

EAGLE-PICHER INDUSTRIES, INC.

Fibers Department

American Building Cincinnati, Ohio 45202

Form No. AF-102

1966, Eagle-Picher Industries, Inc

Printed in U.S.A. AB611

TYPE: Cement
TEMPERATURE: to 1700°F

EAGLE-PICHER

SUPER "66"® INSULATING CEMENT



Description:

Eagle-Picher Super "66" Insulating Cement is composed of small, resilient pellets of high temperature mineral fiber, blended in a dry form with suitable binders and corrosion inhibitors. With the addition of water a highly plastic insulating cement is formed, suitable for application on a wide variety of surfaces requiring a service temperature up to 1700°F.

Uses:

Recommended for ovens, kilns, process or power generation equipment units where a high temperature cement is required. Also, on heated equipment already in operation, where some minor repair may be needed, without shutdown of the equipment.

Advantages:

Easy to Apply: Specially formulated for ease of troweling.

Excellent Adhesion: Highest quality binders are used to provide outstanding wet and dry adhesion to all types of surfaces.

High Coverage: Proper sizing of mineral fiber pellets and selection of binders reduce shrinkage and afford excellent coverage.

Re-usable: Unlike hydraulic setting cements, it can be retempered and applied, provided the cement has not been heated above 250°F.

Physical Properties:

Service Temperature	to 1700°F.
Approximate Water/Cement Ratio	10/5
Coverage (wet)	125 sq. ft. - ½" thick/100 lbs.
Drying Shrinkage (volume)	15.0%
Linear Shrinkage	
at 750°F	0.4%
at 1200°F	1.6%
at 1500°F	1.9%
Installed Density	Approx. 24 lb./cu. ft.
Fire Resistance	Incombustible
Compressive Strength at 5% Deformation	14 Psi

Physical Properties (cont'd):

Corrosion to steel	None
Thermal Conductivity (Btu-in./hr./sq. ft./°F.)	
100°F Mean Temperature	.49
500°F Mean Temperature	.74
800°F Mean Temperature	1.06
Miscellaneous	Can be force-dried. Weather-proofing needed for out-door applications.

Packaging:

50-lb. multi-wall paper bags.

Applicable Specifications:

Commercial Standard CS-11-49
CS-13-46
ASTM Spec. C 195-64
Federal Spec. SS-C-160
Type III, Grade U
Military Spec. MIL-C-2861D

EAGLE PICHER **Superglas® INSULATION**

383936

383937

Since 1843

Manufactured by

EAGLE-PICHER INDUSTRIES, INC.

Fibers Department

American Building Cincinnati, Ohio 45202

Form No. AF-106

©1983, Eagle-Picher Industries, Inc.

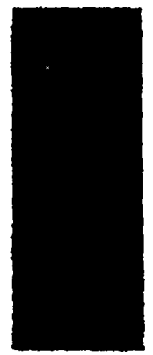
Printed in U.S.A. A5811

TYPE: Cement

TEMPERATURE: to 1200°F

EAGLE-PICHER

ONE-COTE® CEMENT



Description: Eagle-Picher One-Cote Cement is composed of small resilient pellets of mineral fiber and other insulating fillers blended with hydraulic setting binders and corrosion inhibitors. Upon addition of water, a highly plastic cement is formed which has excellent trowelling and "palming" characteristics. Adhesion to a variety of surfaces, particularly pipes and fittings, is excellent. The wet cement forms a hydraulic set in approximately 90 minutes and upon drying, provides an off-white monolithic finish on the applied surface.

Uses: Over fibrous insulation products to form a hard, smooth monolithic finish and on valves, fittings, and other small complex shapes.

Advantages:

Ease of Application: Insulates and finishes in a single operation.

Wet Adhesion: Good "stickability" allows rapid application to valves, elbows and other fittings.

Physical Properties:

Service Temperature ..... to 1200°F
Approximate Water/Cement Ratio 5.75/5
Coverage.. Approx. 75 sq. ft.-½" thick/100 lbs.
Drying Shrinkage ..... Negligible
Compressive Strength ..... 260 Psi at 10% Deformation
Green Set ..... Approx. 90 minutes (varies with application conditions)
Adhesive Strength ..... Good on any surface
Density ..... Approx. 38 lbs./cu. ft. (Installed)
Fire Resistance ..... Incombustible
Corrosion to Metals ..... Does not cause or accelerate corrosion on steel. Not recommended for aluminum.
Shelf Life ..... 6 months

Physical Properties (cont'd):

Thermal Conductivity (Btu-in./hr./sq. ft./°F)
200°F Mean Temperature 0.50
400°F Mean Temperature 0.63
600°F Mean Temperature 0.77
Miscellaneous ..... The wet mixed cement must not be retempered after green set.

Packaging:

50-lb. multi-wall Kraft Paper Bags having a plastic moisture barrier inner liner.

Applicable Specifications:

ASTM Spec. C 449-64
Military Specs. MIL-C-2908A, Type II
MIL-I-24244 (Ships)*
Federal Spec. SS-C-160, Type III, Grade F

* Requires certification and chemical analysis.

383937

Superglas® INSULATION

383939

Since 1843

Manufactured by
EAGLE-PICHER INDUSTRIES, INC.
Fibers Department
American Building Cincinnati, Ohio 45202

Form No. AF-107
©1968, Eagle-Picher Industries, Inc.
Printed in U.S.A. A5811

TYPE: Cement
TEMPERATURE: to 1200°F

EAGLE-PICHER

HYLO® CEMENT



Description: Eagle-Picher Hylo Cement is composed of finely sized resilient pellets of mineral fiber and other insulating fillers, blended with hydraulic setting binders. The wet cement forms a hydraulic set in approximately 90 minutes; it is recommended that the wet mixed cement not be retempered after hydraulic set. Upon drying Hylo Cement provides an off-white monolithic finish on the applied surface.

Uses: A specialized formulation designed for applications over highly water absorptive surfaces such as calcium silicate, diatomaceous earth and magnesia block.

Advantages:

Forms a monolithic structure over water-absorptive block insulation to prevent escape of heat through the joints.

Physical Properties:

Service Temperature	to 1200°F
Approximate Water/Cement Ratio	7/5
Coverage. . Approx. 75 sq. ft.-ft" thick/100 lbs.	
Drying Shrinkage	Negligible
Compressive Strength at 10% Deformation	200 Psi
Green Set (varies with application conditions)	90 minutes
Adhesive Strength	Good on porous, water absorptive and fibrous insulation.
Installed Density	Approx. 32 lbs./cu. ft.
Fire Resistance	Incombustible
Corrosion to Steel	None
Shelf Life	6 months

Physical Properties (cont'd):

Thermal Conductivity (Btu-in./hr./ ft.²/°F)	
200°F Mean Temperature	0.50
400°F Mean Temperature	0.63
600°F Mean Temperature	0.77

Packaging:

50-lb. multi-wall Kraft Paper bags with plastic vapor barrier inner liner.

Applicable Specifications:

ASTM Spec. C 449-64
Military Spec. MIL-C-2908A, Type II
Federal Spec. SS-C-160, Type III, Grade F

383940

EAGLE-PICHER *Superglas*® INSULATION

383941

EAGLE PICHER Since 1843

Manufactured by
EAGLE-PICHER INDUSTRIES, INC.
Fibers Department
American Building Cincinnati, Ohio 45202

Form No. RF-183
©1963, Eagle-Picher Industries, Inc.
Printed in U.S.A. 4561

TYPE: Cement
TEMPERATURE: to 1000°F

EAGLE-PICHER

"43" FINISHING CEMENT



Description: Eagle-Picher "43" Cement is composed of asbestos fibers dry mixed with appropriate hydraulic setting binders. The applied material forms a smooth, hard, water resistant finish for standard insulating materials.

Uses: As a finishing coat over block or fibrous insulations to form a smooth monolithic surface.

Advantages:

Hydraulic Setting: Will not soften or wash off when exposed to water after setting.

Smooth Hard Finish: Covers joints, cracks and other surface irregularities to form a smooth monolithic finish.

Physical Properties:

Service Temperature	to 1000°F
Approximate Water/Cement Ratio	7/5
Coverage	55 sq. ft. -½" thick/100 lbs.
Shelf Life	6 months
Compressive Strength at 5% Deformation	168 Psi
Green Set (Depending on application conditions)	2-3 hours
Installed Density	45.0 lbs./cu. ft.
Fire Resistance	Incombustible

Applicable Specifications:

ASTM Spec. C 194-54
Military Spec. MIL-C-2908A, Type I
Federal Spec. SS-C-160, Type II

Packaging:

50-lb. multi-wall Kraft Paper Bags with plastic vapor barrier inner liner.

383942

EAGLE PICHER **Superglas® INSULATION**

383943

EAGLE-PICHER

Since 1843

Manufactured by

EAGLE-PICHER INDUSTRIES, INC.

Fibers Department

American Building Cincinnati, Ohio 45202

Form No. AF-389

©1968, Eagle-Picher Industries, Inc.

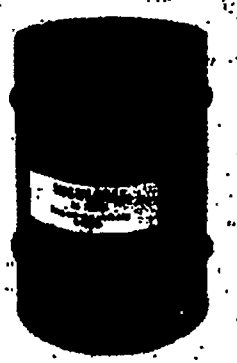
Printed in U.S.A. AS611

TYPE: Mastic

TEMPERATURE: to 250°F

EAGLE-PICHER

ALL-PURPOSE INSULSEAL®



Description:

Eagle-Picher All-Purpose Insulseal is a weather protective coating consisting of chemically dispersed asphalt emulsion, compounded with asbestos fiber and other inert fillers to form a mixture of exceptional trowelling characteristics. Anti-freeze agents are added to permit year round usage.

Uses:

Insulseal is used to weather-protect any standard insulation applied to heated surfaces.

Advantages:

"Breathable" Film: The dry film permits the escape of moisture, but prevents entrance of water.

Excellent Trowelling Characteristics: The "buttery" consistency of Insulseal allows application of a smooth uniform coating with minimum effort.

Non-Toxic - Non-Flammable: Creates no fire or personnel hazards when applied.

Low Shrinkage: Allows for rapid dry film build-up.

Physical Properties:

Service Temperature	to 250°F.
Coverage	10-12 sq. ft./gal. (1/8" as applied)
Shrinkage	Thickness – 35% Linear – 1.5%

Physical Properties (cont'd):

Density	Approx. 9.0 lb./gal.
Freezing Point	15°F.
Color	Black
Acid and Alkali Resistance	Good
Flammability	Will not ignite in container when subjected to flame.

Packaging:

5-gallon pails and 55-gallon steel drums.

383944

EAGLE-PICHER

Superglas® INSULATION

TYPE: Mastic
TEMPERATURE: to 250°F

EAGLE-PICHER

SPRAY-MASTIC®



Description: Eagle-Picher Spray-Mastic is a weather protective coating consisting of chemically suspended petroleum asphalt emulsion, asbestos fibers, rust-inhibiting agents and other ingredients mixed to form the proper viscosity for spray application.

Uses: Spray-Mastic is used to protect all standard insulation materials from the effects of weather.

Advantages:

"Breathable" Film: The dry film permits the escape of moisture, but prevents entrance of water.

Easily Applied: Specially designed for spray application to reduce installation cost, but it may also be brushed on.

Non-Toxic - Non-Flammable: Does not create undue fire or personnel hazards when applied.

Easy Clean-Up: Equipment used can be quickly cleaned with water or mild solvent.

Physical Properties:

Service Temperature ..... to 250°F.
Coverage ..... 10-12 Sq. Ft./Gal. (1/8" as applied)
Shrinkage ..... Thickness – 50.0%
Linear – 0.0%
Drying Time ..... 4 Hrs. (to touch)
Density (as packaged) ... Approx. 8.5 lb./Gal.
Color ..... Black
Flammability ..... Will not ignite in container even when subjected to open flames.

Physical Properties (cont'd):

Acid and Alkali Resistance ..... Good.
Vapor Permeability ..... 1/8" thick film aged two months: 0.22 grain per square foot per hour per inch mercury pressure differential across film.
Stability (Freezing) ..... Three cycles of freezing according to ASTM Method D244 do not damage the material. It does not decompose or show settling or separation in storage.

Packaging:

5-Gallon pails and 54-Gallon steel drums.

383945

Since 1843
Manufactured by
EAGLE-PICHER INDUSTRIES, INC.
Fibers Department
American Building Cincinnati, Ohio 45202

Form No. AP-193
©1968, Eagle-Picher Industries, Inc.
Printed in U.S.A. A6811

383946

EAGLE-PICHER Superglas® INSULATION

383949

Since 1845

Manufactured by

EAGLE-PICHER INDUSTRIES, INC.

Fibers Department

American Building Cincinnati, Ohio 45202

Form No. AF-103

©1968, Eagle-Picher Industries, Inc.

Printed in U.S.A. A8611

EAGLE-PICHER

Superglas® INDUSTRIAL INSULATION

FIBER, BOARD, BLOCK AND BLANKET

INSULATING CEMENTS	Temperature Range
HYLO Insulating Cement	to 1200F
ONE COTE® Cement	to 1200F
SUPER "Gel"® Insulating Cement	to 1100F
"33"® Insulating Cement	to 1600F
EAGLE "43" Finishing Cement	to 1000F

FLAT MATERIALS	
SUPERGLAS® Quilt Insulation	to 250F
SUPERGLAS® 700 Series Insulation	to 450F
1/2" Board	to 850F
Mineral Fiber Blanket Insulation	to 1400F
HYLO & HYLO 18 Block Insulation	to 1800F
SUPERGLAS® 1000 Insulating Board	to 1800F
PV SUPERTEMP Block Insulation	to 1900F
Ceramic Fiber Block	to 2300F

PIPE COVERINGS	Temperature Range
SUPERGLAS® Pipe Insulation	from −120F to 450F
ALUMA FELT Pipe Insulation	to 1000F
TAB LOK® Pipe Insulation	to 1400F
HYLO & HYLO 18 Pipe Insulation	to 1800F

FILL MATERIALS	
"H-4" Cryogenic Fiber	to 450F
"H-7" Loom Fiber	to 1400F
"F-8" Granulated Fiber	to 1400F
SUPERGLAS® 1800 Bulk Fibers	to 1600F
Diatomaceous Earth	to 2000F

PROTECTIVE COATINGS	
SPRAY MASTIC	to 250F
INSULSEAL®	to 250F
STALASTIC®	to 200F

EAGLE-PICHER INDUSTRIES, INC.

Fibers Department

American Bldg., Cincinnati, Ohio 45202

383950