

THE EAGLE-PICHER COMPANY
INSULATION DIVISION

MANUFACTURING SPECIFICATION

PLANT PRODUCTION MUST FOLLOW THIS SPECIFICATION.

Emergency Change may be made but shall be promptly reported to the Production Manager and may not extend beyond the Emergency. Permanent Change must be submitted to and be approved by the Production Manager before use by any Plant.

Product- Supertemp Block

Plant- Joplin

Page- 1 of 4

Effective- March 24, 1952

Supersedes- November, 1950

Revised Items- VI- 6 b

Prepared By- C. E. Young

Approved:

Production Mgr.

Division Mgr.

CONFIDENTIAL

I. PRODUCT DESCRIPTION

- (a) Eagle-Picher Supertemp Block is a dark grey, dry, relatively dust free block composed of Eagle-Picher Mineral Wool thoroughly blended with suitable binding agents. The finished product is semi-rigid and rectangular in shape with square corners and parallel faces.

II. PRODUCT INFORMATION

- | | |
|---|--|
| (a) Density | 22-24 lbs/cu.ft. |
| (b) Service temperature | Up to 1700F, one face |
| (c) Fire resistance | Incombustible |
| (d) Corrosion on steel | None |
| (e) Performance @ 1700F, one face | |
| Volumetric shrinkage | 2% |
| Linear shrinkage | 2% |
| Loss in weight | 2% |
| (f) Compressive strength
(10% deformation) | 18 psi |
| (g) Breaking strength
(1" x 6" on 10" span) | 12 lbs. |
| (h) Thermal conductivity (k) in
BTU in/sq.ft/hr/ F | 0.37 @ 200F M.T.
0.53 @ 500F M.T.
0.64 @ 700F M.T. |
| (i) Block Sizes | |
| Length | 18" and 36" |
| Width | 6" and 12" |
| Thickness | 1" to 4" in 1/2" increments |
| (j) Packages | Cartons |
| (k) Net Weight, per carton | 66, 77, and 82.5 lbs. |

PLAINTIFF'S
EXHIBIT

tabbies
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III. RAW MATERIALS

	<u>MATERIAL</u>	<u>WT. PER MIX*</u>	<u>PERCENT</u>
(a)	Tufted Wool (Type H-1 in burlap bags)	350 lbs.	85.8%
(b)	Bentonite Clay -200 Mesh, 95% min. -300 Mesh, 70% min.	50 lbs.	12.3%
(c)	Hydrated Lime (High Calcium)	2.5 lbs	0.6%
(d)	Starch (#126 Buffalo Corn Starch)	5.5 lbs.	1.3%
		408.0 lbs.	100.0%

*NOTE: Weights and percentages are approximate only. In practice, measurement is by volume rather than by weight.

IV. PROCESSING

- (a) The clay, lime, and starch are added to 55 gallons of water, under agitation, in pre-mix tank.
- (b) When this slurry is thoroughly blended, it is heated to approximately 200F, being kept under continuous agitation during the heating.
- (c) The hot slurry is then moved by gravity from the pre-mix tank to the mixing tank.
- (d) Here, the slurry is again placed under agitation and 10-35 pound bags of wool, plus sufficient water to bring the whole mixture to 450 gallons, are added.
- (e) Mixing continues, until the wool fibers are thoroughly dispersed and suspended in the slurry.
- (f) The resultant slurry is then metered in the mold boxes, allowed to drain and pressed to the desired thickness.
- (g) The mold boxes are removed and returned for refilling.
- (h) The pressed, green blocks are sent to the drying ovens on rack cars.
- (i) The blocks are dried for approximately 4 days with in-going gases to ovens at 400F.
- (j) After drying, the blocks are allowed to cool to a handling temperature.

IV. PROCESSING (Cont'd)

- (k) The cooled blocks are then planed and sawed to the desired dimensions.
- (l) Acceptable Blocks are packed in cartons which are then closed, marked and placed in storage or made ready for shipment. See VI-b below for quantities.

V. PRODUCT CONTROL

- (a) Product control tests shall be conducted as often as is necessary to maintain the quality limits set forth in the following table but with no less frequency than indicated.

<u>PROPERTY</u>	<u>VALUE</u>	<u>MIN. TEST FREQUENCY</u>	<u>TEST PROCEDURE</u>
(1) Dustiness	Relatively free	Continuous	Visual
(2) Waterproofness	To be determined	0.25% Production	To be determined
(3) Density		0.25% Production	E-P I-136a
Minimum	22 lb/cu.ft.		
Maximum	24 lb/cu.ft.		
(4) Breakload 1"x 6" on 10" span	12 lb. min.	0.25% Production	Navy 32-I-3
(5) Dimensional Tolerance	-0 $\pm$ 1/8"	0.25% Production	Visual

- (b) Substandard material shall be set aside for disposition as directed by Plant Manager.

VI. PACKAGING

- (a) Packages shall be regular slotted cartons made from 275 lb. test stock.
- (b) Packages shall be filled in accordance with the following table:

<u>BLOCK SIZE</u>	<u>BLOCK THICKNESS</u>	<u>BD. FT. PER CARTON</u>	<u>CARTON SIZE</u>	<u>APPRX. MIN. NET WT. PER CARTON</u>
6" and 12" x 18"	1, 1½, 2, 2½, 3 in.	45	30-1/8" x 18-1/8" x 12-1/8"	82½ lbs.
6" and 12" x 18"	3½, 4 in.	42	28-1/8" x 18-1/8" x 12-1/8"	77 lbs.
6" and 12" x 36"	1, 1½, 2, 3, 4 in.	36	12-1/8" x 12-1/8" x 36-1/8"	66 lbs.
6" and 12" x 36"	2½ in.	45	15-1/8" x 12-1/8" x 36-1/8"	82½ lbs.
6" and 12" x 36"	3½ in.	42	14-1/8" x 12-1/8" x 36-1/8"	77 lbs.

VI. PACKAGING (Cont'd)

- (c) Cartons shall be printed in accordance with E-P layout D-112.
- (d) Cartons shall be closed by gluing top and bottom.
- (e) All cartons shall be marked with a code number that will permit complete manufacturing identification.
- (f) This product shall be identified on shipping forms as "Mineral Wool Blocks in Cartons".

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