CANCELLED

MANUFACTURING PROCESS

1. NAME Superex Insulation. FACTORY Milwaukee
DATE 10-27-31

CODE NO. 21.431-0200 - Pipe Covering
21.431-0300 - Block Flat

2. MATERIAL

Code No	Description	lbs per Batch	%	% Total
21.536-0700	Superex Plastic	1035	-	[illegible]
23.421-0400	Magnesium Carbonate Page 1	280	6 [illegible]	[illegible]
26.352-3000	Bentonite	200	[illegible]	[illegible]
24-430-0000	"C" Fiber (Willowed)	300	7 [illegible]	[illegible]
24.440-0000	"D" Fiber (Willowed)	150	[illegible]	[illegible]
21.443-0200	Sil-o-cel (As rec'd)	3200	77 [illegible]	[illegible]
		5165	[illegible]	[illegible]

PLAINTIFF'S EXHIBIT K-1682

DEFENDANT'S EXHIBIT OF-254

3. PROCESS

(a) Hot water (180°F) is put into the mixing tank
(b) Bentonite is added followed by the magnesium carbonate, asbestos fibers, sil-o-cel and superex plastic
(c) These materials are mixed by air
(d) Mixing takes approximately 20 minutes and then the solution is emptied into the storage tank.
(e) The solution under pressure is then moulded using 30 to 40 lbs. pressure for pipe covering and 45 - 70 lbs pressure for blocks.
(f) After being moulded the material goes to a dryer of a temperature of approximately 425°F.
(g) The dried blocks or pipe covering are planed to the required size.
(h) The ends are then sprayed with an iron oxide solution.
(i) The planed pipe covering is then jacketed with 4.50 sheeting, 5, 6, 7, 8, canvas, or 40 lb. Kraft Paper. The Kraft Paper being used on orders specifying no canvas

PLAINTIFF'S EXHIBIT JM-83

4. TOLERANCES

(a) The weight per cubic foot shall be determined on samples dried 24 hours at 212°F. and shall not exceed 25# per cu. ft. The strength shall be determined on samples dried 24 hrs. at 212°F. and this shall be at least 80# for 1-1/2" x 6" blocks on 10" C to C or Modulus of Rupture of 88.9 lbs.
(b) The shrinkage shall not exceed 6% when determined as follows: Dry a sample 1-1/2" x 5" x 5" for 24 hours at 212°F. Determine length, width, and thickness, taking four measurements of each. Then place in furnace and gradually raise temperature to 1600°F. Hold at this temperature for 24 hrs., remove, allow to cool and again obtain measurements. Compute volume of block before and after heating at 1600°F.
(c) A tolerance of ± 1/8" on all dimensions is permitted
(d) An allowance of plus or minus 3% is permited on [illegible] in Superex.

MANUFACTURING FORMULA

NAME Superex Insulation.

CANCELLED

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5. PACKAGING DATA

No.	Crate Size for Pipe Covering
1	34 x 36 x [illegible]
7	32 x 34 x [illegible]
31	27 x 36 x 36
55	22 x 31 x [illegible]
67	17 x 34 x [illegible]
68	17 x 17 x 36
70	17 x 21 x 36
71	9½ x [illegible]

#1 and #7 Mostly used.

No.	Sizes of Crates for Blocks
81	26½ x 45½ x 26½
82	26½ x 45½ x 13
88	26½ x 42½ x 26½
89	26½ x 40½ x 26½
92	24½ x 30½ x 19
94	24½ x 36½ x 13
95	24½ x 36½ x 7
96	12½ x 36½ x 7
97	24½ x 30½ x 25½
98	24½ x 36½ x 25½
99	24½ x 36½ x 24½

#98 and #99 mostly used.

TRADE SECRET

J-M 83

This cancels formula dated 7-1-30

Reason: To correct and show more information. Also to show use of Kraft paper in accordance with Mr. J. P. Kottcamp's letter of 9-25-31.

Mfg.Supt. _____ Acct.Dept. _____

21.431-0[illegible]

[illegible] - Pipe Cover[illegible]

~~21[illegible]~~ - Blocks (Fl[illegible]

21.431.0[illegible]

TRADE SECRET

J-M 83

CANCELLED

Superex Insulation

[illegible]

[illegible] No	[illegible]
~~[illegible]~~ 21.536-0700	Superex Pl[illegible]
~~[illegible]~~ 23.4[illegible]	Magnesium Carbonate
[illegible]	Bentonite [illegible]
[illegible]	"C" Fibre [illegible]
[illegible]	"D" Fibre [illegible]
~~[illegible]~~ 21.445-0[illegible]	Oil-O-Sel [illegible]

[illegible]S

[illegible] - [illegible] water (180°F) [illegible] into the mixing [illegible] by magnesia solution, and [illegible] and Oil-O-Sel are added follows by [illegible] Superex covering the plastic [illegible] of moulds.

Removal provision

TOLERANCES

a - The weight per cubic foot shall be determined [illegible] at 21[illegible] and shall not exceed 25# per cubic foot. The determined [illegible] samples dried 24 hours at 212°F and [illegible] 6" blocks [illegible]

b - The shrinkage shall not exceed 5% when determined [illegible] ple 1-1/2" x 5" x 5" for 24 hours at 212°F. Determine thickness, taking four measurements of each [illegible] gradually raise temperature to 1600°F. Hold at [illegible] hours, remove, allow to cool and again obtain [illegible] volume of block before heating at 1600°F.

c - A tolerance of 1/8" on all dimensions is [illegible] manufactured size is actually less than this.

d - The weight of Superex is 50% greater than for [illegible]

PACKAGING DATA

a - Packed in wood [illegible]

CANCELLED BY FORMULA DATE

[illegible] formula [illegible]

[illegible] effective July [illegible]

[illegible] Replacing part "C" Fibre.

10-27-31

Mfg Supt [illegible] Acct Dept.

TRADE SECRET
J-M 83

CANCELLED

[illegible] 214204100
[illegible] 3600
[illegible] 214302100
[illegible] 3500

The process is practically the [illegible] [illegible] products.

[illegible]

Code No.	Description	[illegible]	
[illegible]	Superex Plastic	[illegible]	
[illegible]	Magnesium Carbonate	[illegible]	
[illegible]	Bentonite (Wilkinite Grade)	[illegible]	
[illegible]	[illegible] (Willowed)	[illegible]	
[illegible]	Oil-O-Gel ([illegible])	[illegible]	
		[illegible]	[illegible]

Hot water ([illegible]°F) is put into the [illegible] [illegible] followed by magnesia solution, and which being thoroughly [illegible] fibre and Oil-O-Gel are added followed by superex plastic, [illegible] superex covering the plastic is practically doubled to [illegible] [illegible].

[illegible]

The weight per cubic foot shall be determined on [illegible] at 212°F. and shall not exceed [illegible] per cubic foot. The [illegible] [illegible] on samples dried 24 hours at 212°F. and this shall be [illegible] 1-1/2" x 6" blocks on 10" C to C.

The shrinkage shall not exceed 6% when determined [illegible] sample 1-1/2" x 5" x 5" for 24 hours at 212°F. [illegible] thickness, taking four measurements of each. Then [illegible] gradually raise temperature to 1600°F. Hold at [illegible] remove, allow to cool and again obtain measurements. [illegible] before heating at 1600°F.

A tolerance of 1/8" on all dimensions is per [illegible] manufactured size is actually less than this.

The weight of superex is [illegible] greater than for [illegible]

[illegible]