FILE NAME: Hopeman Brothers (HB)

DATE: 1958

DOC#: HB028

DOCUMENT DESCRIPTION: Johns-Manville Manufacturing Specs

Johns-Manville MANUFACTURING SPECIFICATION	PRODUCT: MARINITE 30 (SPFI) X	PLANT & DIV.	H - II
		SPEC NO.	4223-2
		PAGE NO.	1

PRODUCTS:

Plain
Veneered 2 sides

jute allowed

FORMULA:

For Cyclone Delivery of Fiber

	Spec. No.	Material	Batch		%
	------	Ground Amosite Fiber(MDorW-3)*		1800#	49.7
	P.S. 61827	Special Hydrated Lime	18 bags (50# ea.)	900#	24.9
X1	F.P.S. 41.19	Celite 392	18 " (50# ")	900#	24.9
	------	R-5098 Red Oxide		18#	0.5
				3618#	100.0%

For Patterson Operation (using bagged fiber)

	------	Ground Amosite Fiber(MDorW-3)*		400#	49.7
	P.S. 61827	Special Hydrated Lime	4 bags (50# ea.)	200#	24.9
X1	F.P.S. 41.19	Celite 392	4 " (50# ")	200#	24.9
	------	R-5098 Red Oxide		4#	0.5
				804#	100.0%

Note: * MD or W-3 may be used interchangeably, i.e. in any ratio together in individual batches.

Slurry Preparation Using Cyclone for Fiber Delivery

Fiber Delivery

Draw water from filtrate tank, set at 150°F, to gel tank until level is approximately 6" below the bottom of the agitator shaft (2000 gals.). Alternate water draw from the filtrate tanks for each batch. If one of the tanks becomes inoperative draw all water from remaining tank. Set gel tank temperature controller at 130°F with automatic steam control "on". Start gel tank agitator on fast speed (30 rpm) and start grinding Amosite fiber with blower fans operating. Grind crude Amosite fiber per the following table in order to obtain proper ground fiber.

Grind - 1650#

If Rejects	Add Crude
0 - 50#	0
50 -100#	50#
100 -150#	100#

Attrition mills may be used singularly or in tandem and adjusted to achieve the following McNett classification:

+14M - between 10 to 20%

In order to properly control fiber weight, droppings from feeder must be shovelled back into hopper before completion of each batch.

RETURN TO J-M RESEARCH FILE ROOM

X— INDICATES CHANGE —REASON: X-New spec. numbering system. X1-change raw material designation, was formerly Sil-O-Cel, Grade B.

AUTHORITY FOR CHANGE X1-Minutes of 5-6-58 meeting on Celite products, D.B.Wingerter&W.M. Rogers, dated 5-14-58.

[redacted]

CRMC-000001

DIR. Q.C.	MGR. Q.C.	SUPR. Q.C.	PROD. SUPT.	PLNT. FIN.	RES. LAB.				DATE ISSUED Sept. 10, 1958

Form 333-2 Pld. In U.S.A.

MANUFACTURING SPECIFICATIONS

BILLERICA PLANT

DEPT.

PRODUCT: MARINITE 30 (SPPI)

DIVISION II

SPEC. NO. 46

PAGE NO. 1

PRODUCTS:

Plain
Veneered 2 sides

CANCELLED 9/10/58 4223-V

FORMULA:

For Cyclone Delivery of Fiber

Purchase Spec. No.	Material	Batch		%
-----	Ground Amosite Fiber(MDorW-3)*		1800#	49.7
61827	Special Hydrated Lime	18 bags (50# ea.)	900#	24.9
-----	Sil-O-Cel, Grade B	18 " (50# ")	900#	24.9
-----	R-5098 Red Oxide		18#	0.5
			3618#	100.0%

For Patterson Operation (using bagged fiber)

-----	Ground Amosite Fiber(MDorW-3)*		400#	49.7
61827	Special Hydrated Lime	4 bags (50# ea.)	200#	24.9
-----	Sil-O-Cel, Grade B	4 " (50# ")	200#	24.9
-----	R-5098 Red Oxide		4#	0.5
			804#	100.0%

Note: * MD or W-3 may be used interchangeably, ie, in any ratio together in individual batches.

Slurry Preparation Using Cyclone for Fiber Delivery

Fiber Delivery

Draw water from filtrate tank, set at 150°F, to gel tank until level is approximately 6" below the bottom of the agitator shaft (approx. 2000 gals.). Alternate water draw from the filtrate tanks for each batch. If one of the tanks becomes inoperative draw all water from remaining tank. Set gel tank temperature controller at 130°F with automatic steam control "on". Start gel tank agitator on fast speed (30 rps) and start grinding Amosite fiber with blower fans operating. Grind crude Amosite fiber per the following table in order to obtain proper ground fiber.

Grind - 1850#

If Rejects	Add Crude
0 - 50#	0
50 -100#	50#
100 -150#	100#

RETURN TO J-M RESEARCH FILE ROOM

Attrition mills may be used singularly or in tandem and adjusted to achieve the following McNett classification:

+11M - between 10 to 20%

In order to properly control fiber weight, droppings from feeder must be shovelled back into hopper before completion of each batch.

X- INDICATES CHANGE - REASON: Complete revision to represent present practice (product was last made in 1950).

AUTHORITY FOR CHANGE: E. G. Lindstrom's ltr. of Aug. 8, 1957 to E. E. Govoni, "Marinite 30 Manufacturing Specification".

FILE-HOLDERS					SUPR. QUAL. CONTROL	PROD. SUPT.	PLANT FINANCE OFFICE	RESEARCH LAB.	WEB. QUAL. CONTROL	DTR. QUAL. CONTROL

SUPERSEDES: Part of page 1 of Light Weight Marinite specification, issued 9-23-46.

DATE ISSUED 8-12-57

8/20/57

CRMC-000002

MANUFACTURING SPECIFICATIONS

BILLERICA FACTORY

MARINITE DEPT.

PRODUCT: LIGHT WEIGHT MARINITE 30

SECTION NO. ____

SPEC. NO. 46

PAGE NO. 1

CANCELLED 8/12/57 pp. 1-2

X **PRODUCT:**

Plain
Veneered 2 sides

FORMULA:

Crude Amosite Fibre 3-3 or 4-1 is first fiberized, cleaned and bagged.

A mixer is filled with a measured amount of water heated to 130°F. max. The dry materials are added and mixed for not less than ten (10) minutes.

The amount of water used is ordinarily in a ratio of 9 parts of water to 1 part of dry materials by weight. However, the water ratio may be varied slightly to obtain the best working consistency of the slurry.

Material Code No.	Material	Batch		%
____	Ground Amosite Fibre	10 bags	(40# ea.) 400#	50
61826	Special Hydrated Lime for Kaolmm	4 "	(50# ") 200#	25
____	Sil-O-Cel, Grade 2		200#	25

Add 4# (1/2 of 1% of dry weight of batch) Red Oxide #1241-C (Mat'l. Code No. 63176) to above batch.

Note: Wet scrap from the press is to be disintegrated, then weighed and added to a new batch within 24 hours. Add sufficient additional water to the batch to maintain standard consistency.

MANUFACTURING INSTRUCTIONS:

1. The batch measuring tank overflow is set so that the measured volume of slurry contains the required amount of raw materials to produce a sheet.
2. Apply low and then high water pressure until the dial thickness gauge indicates the proper thickness, then release.
3. Check thickness of pressed sheets periodically.
4. File pressed sheets on skid platform separating every 8" (maximum) of pressed sheets by two sheets of flat transite or fiberboard and one sheet of steel grating.
5. Hold pressed sheets on platform for minimum of 24 hours before steam curing.
6. Steam cure at 100# gauge for approximately 20 hours.
7. Dry sheets in continuous oven by placing load in oven every 2 hours, 36" sheets; every 3 hours, 42" and 48" sheets (7 loads per charge, total cycle 14 hours for 36" sheets and 21 hours for 42" and 48" sheets).

Note: When only a few sheets are to be dried, a "batch" oven is used—not continuous—cycle 24 hours.

Oven to be controlled by temperature at wet end and at dry end.

	Wet End	Dry End
All Sizes	300°F	400°F

8. Drum sand sheets both sides using 20-20-36 papers (#1 drum sanding).

X— INDICATES CHANGE — REASON: To include "Veneered 2 sides"

AUTHORITY FOR CHANGE— Product Proposal 439

CRMC-000003

FILE-HOLDERS					SUBS. DEPT.	LOCAL COST DEPT.	RESEARCH DEPT.	GEN. T. & C. DEPT.	GEN. COST DEPT.	LOCAL T. & C. DEPT.

SUPERSEDES: Page 1, issued 8-29-46

DATE ISSUED 8-31-46

AFFIDAVIT

STATE OF COLORADO)
) ss.
COUNTY OF JEFFERSON)

I, Margaret J. Baumgardner, being of full age and first duly sworn do hereby state:

1. I am the Research Coordinator for the Claims Resolution Management Corporation ("CRMC"), a wholly owned subsidiary of the Manville Personal Injury Settlement Trust ("Trust"). The CRMC was created in December 1998 and is staffed by former Trust employees. On January 1, 1999, CRMC began providing claims resolution facility services to the Trust.

2. In this position, I manage the Asbestos Claims Research Facility ("Facility"), a document and records repository, located at 4755 East 46th Avenue, Denver, Colorado. The Facility contains the business records including but not limited to correspondence, memoranda, reports, records and data compilations ("records") of Manville Corporation or related entities ("Manville"), generally, as well as Manville records relevant to litigation of asbestos liability. The Trust has managed and operated the Facility from November 28, 1988, the date on which the Manville bankruptcy plan was consummated.

3. My experience and familiarity with the documents at the Facility began in 1983 while working for Manville. In my work as a paralegal for Manville, I assisted in locating, indexing and packing many of the records which became the foundation documents for the Facility. I continued to work for Manville until September 1987. From March 1988 to September 1988, I was hired to supervise and assist in the indexing of the first 20,000 boxes which were turned over to the Trust in November 1988. From September 1988 to January 1989, I assisted in the privilege review of documents to be given to the Trust. From November 1988 to April 1994, I worked for Freeborn & Peters and was put in charge of the Facility, managing all productions and "new" acquisitions. In September 1995, I was hired by the Trust to manage the Facility. In December 1998, I was hired by the CRMC to manage the Facility for the Trust. Accordingly, I am personally familiar with many of the records stored at the Facility, as well as how the records have been gathered.

4. To the best of my present knowledge, information and belief, I certify that these records were made at or near the time by, or from information transmitted by, a person with knowledge, were kept in the course of the regularly conducted business activity of Manville, and it was the regular practice and the business activity of Manville to make the records.

5. Manufacturing specifications labeled, CRMC-000001 to CRMC-000003 have been copied for the offices of Shepard A. Hoffman. The copies have come from product file 258 at the Facility. The documents from these files were copied from original files kept at Manville's Research Facility in Littleton, Colorado. The documents were copied by counsel for the Trust in 1989 and are true and correct copies of documents found at the Manville's Facility.

Margaret J. Baumgardner

Subscribed and sworn to before
me this 27th day of January, 2004.

Notary Public

KAREN L. BLUHM
NOTARY PUBLIC
STATE OF COLORADO
My Commission Expires 10/05/2005