PLAINTIFF'S EXHIBIT
MC-432

Johns-Manville MANUFACTURING SPECIFICATION	PRODUCT: TRANSITE PIPE ASBESTOS FIBRE BLENDS	PLANT & DIV.	MANVILLE PLANT PIPE DIVISION
		SPEC NO.	425-1.
		PAGE NO.	1

FORMULA:

CANCELLED 3/18/59

#1 & #4 Machines - C-203 Blend

	Bags	Weight	PerCent	Cost
Blue NC-300	1-1/4	125#	7.1%	$14.94
Rhodesian Improved "S"	3-1/2	350	20.0	30.03
Munro 4Y	4	400	22.9	39.28
Reprocessed		875	50.0	4.98
		1750#	100.0%	$89.23
				$50.99/1000 lbs.

#2 Machine - M-567 Blend
#1 Machine (Sewer Pipe Only)

	Weight	PerCent	Cost
*Blue	350#	29.2%	$41.90
4T28	250	20.8	23.58
Munro 4Y	300	25.0	29.46
6D20	300	25.0	14.33
Total	1200#	100.0%	$109.38
Reprocessed	240#	20.0%	$1.37
(Cost Cal. on Basis "S" Blue)		$76.91/1000	

#3 Machine M-568 Blend

	Weight	PerCent	Cost
*Blue	400#	33.3%	$47.90
4T28	250	20.8	23.68
Munro 4Y	350	29.2	34.37
6D20	200	16.7	9.55
Total	1200#	100.0%	$115.50
Reprocessed	240#	20.0%	$1.37
(Cost Cal. on Basis "S" Blue)		$81.16/1000	

JAN 23 1959

*Note: The following foreign fibres can be used as a substitute for "S" Blue, Pomfret, NC-70, KCBR-3, and "A" Blue.

RETURN TO J-M RESEARCH FILE ROOM

MANUFACTURING INSTRUCTIONS:

1. Charge batch materials into skip hoist in the most convenient manner and order. Mix in top mixer for a minimum of five minutes.
2. Feed fibre mixture into willow at a rate of approx. 3000# to 4500# per hour.

X— INDICATES CHANGE —REASON:	Pipe Division Fibre Program - 1959 Fibre Blends.
AUTHORITY FOR CHANGE	T. R. Turnbull's letter of 1/9/59.
SUPERSEDES:	Same specification issued 6/4/58.

DIR. Q.C.	MGR. Q.C.	SUPR. Q.C.	PROD. SUPT.	PLNT. F.N.	REG. DM	WAU. DENISON	CONTROL LAB.	STOCKTON MAR-WAT	DATE ISSUED JAN 22 1959

Ptd. in U.S.A.
Form 333-2

MANUFACTURING SPECIFICATIONS

Manville PLANT

Transite Pipe DEPT.

PRODUCT: Transite Pipe Asbestos Fibre Blends DIVISION TR

SPEC. NO. 425-1

PAGE NO. 1

425

FORMULA:

#1 & #4 Machines - C-203 10' Machine CANCELLED 1/xx/59

	Bags	Weight	Per Cent	Cost
Blue MC-300	1-1/4	125#	7.1%	$14.94
Rhodesian Improved "S"	3-1/2	350	20.0	30.03
Munro 4Y	4	400	22.9	39.28
Reprocessed		875	50.0	4.98
		1750#	100.0%	$89.23
			$50.99/1000 lbs.	

#2 Machine - M-559E (Tube Mandrel)

	Weight	Per Cent	Cost
A Blue	132#	10.3%	$16.82
S Blue	250	19.5	29.94
4T28	250	19.5	23.68
Munro 4Y	350	27.3	34.37
Rhodesian Improved "S"	100	7.8	8.58
6D20	200	15.6	9.55
	1282#	100.0%	$122.94
Reprocessed	256	20.0	1.46
		$80.88/1000 lbs.	

PIPE DEPARTMENT JUN 6 1958 G. SMOLAK

#3 Machine - M-559E (Swing Mandrel)

	Weight	Per Cent	Cost
A Blue	88#	8.5%	$11.21
S Blue	300	28.9	35.93
4T28	200	19.3	18.94
Munro 4Y	300	28.9	29.46
Rhodesian Improved "S"	50	4.8	4.29
6D20	100	9.6	4.76
	1038#	100.0%	$104.59
Reprocessed	208	20.0	1.18
		$84.88/1000 lbs.	

RETURN TO J-M RESEARCH FILE ROOM

MANUFACTURING INSTRUCTIONS:

1. Charge batch materials into skip hoist in the most convenient manner and order. Mix in top mixer for a minimum of five minutes.

2. Feed fibre mixture into willow at a rate of approximately 3000# to 4500# per hour.

X— INDICATES CHANGE — REASON: Pipe Division Fibre Program. To maintain a balance usage of Johns-Manville Canadian Fibres.

AUTHORITY FOR CHANGE— T.R.Turnbull's letter of 5/13/58, Enactment letter of 5/20/58.

FILE-HOLDERS	WAU.	CONTROL LAB.	DENISON	WATSON	STOCKTON MARRERO	SUPR. QUAL. CONTROL	PROD. SUPT.	PLANT FINANCE OFFICE	RESEARCH	MGR. QUAL. CONTROL	DIR. QUAL CONTR

SUPERSEDES: Same Specification issued 1/16/58.

DATE ISSUED JUN 4

50132-11 TED IN U.S.A.

Johns-Manville MANUFACTURING SPECIFICATION	PRODUCT: Transite Pipe Asbestos Fiber Blends	PLANT & DIV.	MANVILLE TRANSITE PIPE
		SPEC NO.	425-1
		PAGE NO.	1

Formula

#1 and #4 Machine - 10' Lengths

Material	H1 Blend Weight		H1 Blend Weight	Percent	M609 Weight	M609 Percent
Blue	100#	or	200#	18.2%	200#	16.7%
4T30	--		--	--	600	50.0
M100	450	or	900	81.8	400	33.3
Total - -	550	or	1100	100.0%	1200#	100.0%

Use of Scrap in the H Blend at the Willow:

Blend Designation	% Scrap Added	H1 Base Lbs/Batch	Scrap Lbs/Batch	Total Lbs/Batch
H1-0	0	1100#	0	1100#
H1-20	20.0%	1100	220	1320
H1-40	40.0	1100	440	1540
H1-60	60.0	1100	660	1760
H1-80	80.0	550	440	990
H1-100	100.0	550	550	1100
H1-120	120.0	550	660	1210
H1-140	140.0	550	770	1320
H1-160	160.0	550	880	1430

13' Pipe Machines:

Blend Pipe Sizes Materials	M609 3" to 8" Weight	M609 3" to 8" Percent	M610 10" to 16" Weight	M610 10" to 16" Percent	M611 18" to 36" Weight	M611 18" to 36" Percent
Blue	200#	16.7%	300#	22.2%	300#	26.1%
4T30	600	50.0	650	48.2	500	43.5
M100	400	33.3	400	29.6	350	30.4
Total - -	1200#	100.0%	1350#	100.0%	1150#	100.0%

Note:

*"S" Blue and "A" Blue, "KCB", and "NC70" are considered Blue Fiber.
**4K and 4D are considered equivalent to 4T30.

Manufacturing Instructions:

1. Charge batch materials into skip hoist in the most convenient manner and order. Mix in top mixer for a minimum of five minutes.
2. Feed Fiber mixture into willow at approximately 3000# to 4500# per hour.

X— INDICATES CHANGE —REASON:	To Show New Blend for 10' Machine Operation	RETURN TO
AUTHORITY FOR CHANGE	W. L. VanDerbeek's Letter Dated 2/6/61	J-M RESEARCH
SUPERSEDES:	Specification 425-1, Page 1, Dated 5/4/60	FILE ROOM

DIR Q.C.	MGR. Q.C.	SUPR. Q.C.	PROD. SUPT.	PLNT. FIN.	RES. LAB.	DATE ISSUED
					CONT. LAB. - LONG BEACH-MARRERO STOCKTON-DENISON-WAUKEGAN	MAR 14 1961

Form 333-2 Ptd. in U.S.A.

Johns-Manville MANUFACTURING SPECIFICATION	PRODUCT: Transite Pipe Asbestos Fiber Blends	PLANT & DIV.	MANVILLE TRANSITE PIPE
		SPEC NO.	425-1 4/5
		PAGE NO.	1

X **FORMULA:**

#1 and #4 Machines - C209 Blend

Material	Bags	Weight	Percent	Cost
**Blue	1/2	63#	4.8%	$ 7.62
*4T30	1	100	7.5	9.99
Munro 4Y	4	400	30.2	37.26
6D20	1	100	7.5	4.99
Reprocessed		663	50.0	3.02
		1326#	100.0%	$62.88
			$47.42/1000#	

REVISED

M600-A Blend 3" to 8" Size

X

Material	Weight	Percent	Cost
**Blue	300#	22.2%	$36.28
*4T30	700	51.9	69.94
Munro 4Y	350	25.9	32.61
	1350#	100.0%	$138.83
		$102.84/1000#	

M601-A Blend 10" to 36" Size

X

Material	Weight	Percent	Cost
**Blue	300#	27.3%	$36.28
*4T30	500	45.4	49.96
Munro 4Y	300	27.3	27.95
	1100#	100.0%	$114.19
		$103.81/1000#	

RETURN TO
J-M RESEARCH
FILE ROOM

NOTE: *4K or 4D are considered equivalent.
**Cost calculated on basis of "S" Blue.

The following foreign fibers can be used as a substitute for "S" Blue: Pomfret - NC70 - KCB R/3 - "A" Blue.

MANUFACTURING INSTRUCTIONS:

1. Charge batch materials into skip hoist in the most convenient manner and order. Mix in top mixer for a minimum of five minutes.
2. Feed fiber mixture into willow at a rate of approximately 3000# to 4500# per hour.

X— INDICATES CHANGE —REASON: Change in Fiber Blends

AUTHORITY FOR CHANGE: Pipe Division Fiber Program, New Blends M600 and M601
T. R. Turnbull's Letters Dated 3/16/60 and 4/12/60.

SUPERSEDES: Specification 425-1 - Dated 3/23/60.

DIR. Q.C.	MGR. Q.C.	SUPR. Q.C.	PROD. SUPT.	PLNT. FIN.	RES. LAB.	CONTROL LAB.	STOCKTON MARRERO	DENISON WAT. WAU.	DATE ISSUED MAY 4 1960

Ptd. in U.S.A.

Form 333-2

Johns-Manville MANUFACTURING SPECIFICATION	PRODUCT: Transite Pipe Asbestos Fiber Blends	PLANT & DIV.	MANVILLE TRANSITE PIPE
		SPEC NO.	425-1
		PAGE NO.	1

425 425

FORMULA:

#1 and #4 Machines - C209 Blend

Material	Bags	Weight	Percent	Cost
Blue	1/2	63#	4.8%	$7.62
4T28 or 4T30	1	100	7.5	9.99
Munro 4Y	4	400	30.2	37.26
6D20	1	100	7.5	4.99
Reprocessed		663	50.0	3.02
		1326#	100.0%	$62.88

CANCELLED

Cost Cal. on Basis of "S" Blue $47.42/1000#

#2 & #3 Machine M581-A Blend 3"-12" Size

X

Material	Weight	Percent	Cost
*Blue	300#	25.0%	$36.28
4T28 or 4T30	600	50.0	59.95
Munro 4Y	300	25.0	27.95
Total	1200#	100.0%	$124.18

Cost Cal. on Basis "S" Blue $103.48/1000#

#3 Machine M590-A Blend 14"-36" Size

X

Material	Weight	Percent	Cost
*Blue	350#	29.2%	$42.32
4T28 or 4T30	500	41.6	49.96
Munro 4Y	350	29.2	32.61
Total	1200#	100.0%	$124.89

RECEIVED
MAR 24 1960
Transite Pipe Dept.

Cost Cal. on Basis "S" Blue $104.08/1000#

*NOTE: The following foreign fibers can be used as a substitute for "S" Blue, Pomfret, NC-70, KCBR-3, and "A" Blue.

MANUFACTURING INSTRUCTIONS:

1. Charge batch materials into skip hoist in the most convenient manner and order. Mix in top mixer for a minimum of five minutes.

2. Feed fiber mixture into willow at a rate of approx. 3000# to 4500# per hour.

RETURN TO J-M RESEARCH FILE ROOM

X— INDICATES CHANGE —REASON:	Pipe Division Fiber Program - 1960 - Fiber Blends and the Elimination of Reprocessed Material
AUTHORITY FOR CHANGE	T. R. Turnbull's Letter of 3/10/60.
SUPERSEDES:	Same Specification Issued 8/14/59

DIR. Q.C.	MGR. Q.C.	SUPR. Q.C.	PROD. SUPT.	PLNT. FIN.	RES. LAB.	CONTROL LAB.	STOCKTON MARRERO	DENISON WAT. WAU.	DATE ISSUED MAR 23 1960

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

Johns-Manville MANUFACTURING SPECIFICATION	PRODUCT: TRANSITE PIPE ASBESTOS FIBRE BLENDS	PLANT & DIV.	MANVILLE PLANT PIPE DIVISION
		SPEC NO.	425-1
		PAGE NO.	1

FORMULA:

#1 & #4 Machines - C-209 Blend

Material	Bags	Weight	Percent	Cost
Blue	1/2	63#	4.8%	$7.65
4T28 or 4T30	1	100	7.5	10.12
Munro 4Y	4	400	30.2	38.11
6D20 CANCELLED	1	100	7.5	5.09
Reprocessed		663	50.0	4.12
		1326#	100.0%	$65.09
Cost Cal. on Basis of "S" Blue			$49.09/1000	

#2 & #3 Machine M581 Blend 3" to 12" Size
#1 Machine (Sewer Pipe Only)

X

Material	Weight	Percent	Cost
*Blue	300#	25.0%	$36.43
4T28 or 4T30	600	50.0	60.72
Munro 4Y	300	25.0	28.58
Total	1200#	100.0%	$125.73
Reprocessed	240#	20.0%	$1.49
Cost Cal. on Basis "S" Blue		$88.35/1000	

#3 Machine M590 Blend 14" to 36" Size

X

Material	Weight	Percent	Cost
*Blue	350#	29.2%	$42.50
4T28 or 4T30	500	41.6	50.60
Munro 4Y	350	29.2	33.35
Total	1200#	100.0%	$126.45
Reprocessed	240#	20.0%	$1.49
Cost Cal. On Basis "S" Blue		$88.85/1000	

*Note: The following foreign fibres can be used as a substitute for "S" Blue, Pomfret, MC-70, KCBR-3, and "A" Blue.

RETURN TO:
J-M RESEARCH
FILE ROOM

MANUFACTURING INSTRUCTIONS:

1. Charge batch materials into skip hoist in the most convenient manner and order. Mix in top mixer for a minimum of five minutes.
2. Feed fibre mixture into willow at a rate of approx. 3000# to 4500# per hour.

X— INDICATES CHANGE —REASON:	Pipe Division Fibre Program-1959 Fibre Blends - Reduction of Blue Fiber and the Elimination of 6D20 Fiber from Blend
AUTHORITY FOR CHANGE	T. R. Turnbull's Letter of 7/30/59
SUPERSEDES:	Same Specification Issued 3/18/59

DIR. Q.C.	MGR. Q.C.	SUPR.	PROD SUPT.	PLNT. FIN.		CONTROL LAB.	MARRERO DENISON STOCKTON WAU. WAT.	DATE ISSUED	8/14/59

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

425

Johns-Manville MANUFACTURING SPECIFICATION	PRODUCT: TRANSITE PIPE ASBESTOS FIBRE BLENDS	PLANT & DIV.	MANVILLE PLANT PIPE DIVISION
		SPEC NO.	425-1
		PAGE NO.	1

FORMULA:

#1 & #4 Machines - C-209 Blend

8/14/59 CANCELLED

Material	Bags	Weight	Percent	Cost
Blue	1/2	63#	4.8%	$7.58
4T28	1	100	7.5	10.10
Munro 4Y	4	400	30.2	38.08
6D20	1	100	7.5	5.07
Reprocessed		663	50.0	4.12
		1326#	100.0%	$64.95
Cost Cal. on Basis of "S" Blue		$48.98/1000		

#2 Machine - M-567 Blend
#1 Machine (Sewer Pipe Only)

RETURN TO J-M RESEARCH FILE ROOM

Material	Weight	Percent	Cost
*Blue	350#	29.2%	$42.10
4T28	250	20.8	25.26
Munro 4Y	300	25.0	28.56
6D20	300	25.0	15.22
Total	1200#	100.0%	$111.14
Reprocessed	240#	20.0%	$1.49
Cost Cal. on Basis "S" Blue		$78.22/1000	

#3 Machine M-568 Blend

Material	Weight	Percent	Cost
*Blue	400#	33.3%	$48.12
4T28	250	20.8	25.26
Munro 4Y	350	29.2	33.32
6D20	200	16.7	10.15
Total	1200#	100.0%	$116.85
Reprocessed	240#	20.0%	$1.49
Cost Cal. on Basis "S" Blue		$82.18/1000	

*Note: the following foreign fibres can be used as a substitute for "S" Blue, Pomfret, NC-70, KCBR-3, and "A" Blue.

MAR 19 1959

MANUFACTURING INSTRUCTIONS:

1. Charge batch materials into skip hoist in the most convenient manner and order. Mix in top mixer for a minimum of five minutes.
2. Feed fibre mixture into willow at a rate of approx. 3000# to 4500# per hour.

Form 333-2 Ptd. in U.S.A.

X— INDICATES CHANGE —REASON:	Pipe Division Fibre Program-1959 Fibre Blends-Change in Fiber Prices
AUTHORITY FOR CHANGE	T. R. Turnbull's letter of 1/9/59.
SUPERSEDES:	Same specification issued 1/22/59.

D.R.	MGR.	SUPR.	PROD. SUPT	PLNT ENG.	CONTROL LAB.	MARRERO STOCKTON	WATSON DEN. MAN.	DATE ISSUED	MAR 19 1959

MANUFACTURING SPECIFICATIONS

MANVILLE PLANT

TRANSITE PIPE DEPT.

PRODUCT: Transite Pipe Asbestos Fiber Blends

DIVISION TR

SPEC. NO. 425-1

PAGE NO. 1

X

FORMULA:

CANCELLED 6/4/58

C-203 10' Machine

	Bags	Weight	Per Cent	Cost
Blue NC-300	1-1/4	125#	7.1%	$14.94
Rhodesian Improved "S"	3-1/2	350	20.0	30.03
Munro 4Y	4	400	22.9	40.28
Reprocessed		875	50.0	4.18
		1750#	100.0%	$89.43

$51.10/1000#

PIPE DEPARTMENT JAN 18 1958 G. SMOLAK

M-550-E Tube Mandrel

	Weight	Per Cent	Cost
A Blue	176#	14.4%	$ 22.42
S Blue	300	24.5	35.96
4T28	200	16.3	19.84
Munro 4Y	250	20.4	25.18
Rhodesian Improved "S"	100	8.1	8.58
6D20	200	16.3	10.04
	1226#	100.0%	$122.02
Reprocessed	245	20.0	1.16

$82.67/1000#

M-551-E Swing Mandrel

	Weight	Per Cent	Cost
A Blue	176#	17.1%	$ 22.42
S Blue	250	24.4	29.94
4T28	200	19.5	19.84
4Y Munro	250	24.4	25.18
Rhod. "S"	50	4.9	4.29
6D20	100	9.7	5.02
	1026#	100.0%	$106.69
Reprocessed	205		.98

$87.47/1000#

RETURN TO J-M RESEARCH FILE ROOM

MANUFACTURING INSTRUCTIONS:

1. Charge batch materials into skip hoist in the most convenient manner and order. Mix in top mixer for a minimum of five minutes.
2. Feed fiber mixture into willow at the rate of approximately 3000# to 4500# per hour.

X— INDICATES CHANGE — REASON: New 1958 fiber blends

AUTHORITY FOR CHANGE— Letter of T. R. Turnbull to W. L. VanDerbeek dated 1/9/58.

FILE-HOLDERS	WKG.	IND.ENG.	CONTROL LAB	WATSON STOCKTON	DENISON MARRERO	SUPR. QUAL. CONTROL	PROD. SUPT.	PLANT FINANCE OFFICE	RESEARCH LAB	MGR. QUAL. CONTROL	DIR. QUAL. CONTROL

SUPERSEDES: Same specification issued 1/18/57.

DATE ISSUED JAN 16 1958

50132-11
ED IN U.S.A.

MANUFACTURING SPECIFICATIONS

MANVILLE _____ PLANT

TRANSITE PIPE _____ DEPT.

PRODUCT: Transite Pipe Asbestos Fiber Blends

DIVISION IP

SPEC. NO. TP-1

PAGE NO. 1

4v5

CANCELLED 9/16/55

PIPE AND BOARD DEPARTMENT JUN 15 1955 C. B. BROWN

FORMULA:

C-171

Fiber	Bags	Weight	Per cent
4Y Munro (3*)	3-1/2	280#	20.0%
4Z20	3	300	20.0
321 Drop	1	150	10.0
Reprocessed		730	50.0
		1460#	100.0%

M-471-2 Blend
Tube Mandrels - Size 3" - 8"

Fiber	Bags	Weight	Per cent
S Blue (*1)	4	400	30.0%
4Y (*3)	3-1/2	280	22.1
X 4Z20 (*4)	5	500	40.0
6D20 (*5)	1	100	7.9
		1280#	100.0%
Reprocessed		250#	20.0%

M-475-2 Blend
Tube Mandrels - Size 3" - 8"

Fiber	Bags	Weight	Per cent
Blue (*2)	4	400#	28.5%
C & G-3	1	125	8.8
4Y (*3)	3-1/2	280	20.0
4Z20 (*4)	5	500	35.5
6D20 (*5)	1	100	7.2
		1405#	100.0%
Reprocessed		280#	20.0%

Notes: (*1) - C & G-3 may be used as replacement for Blue Fiber when available.

(*2) - Varying weight combinations of A Blue, S Blue and NC Blue may be used due to difference in bag weights. See Blend M-472-1 for typical combinations.

(*3) - Or 4X may be used as alternate.

(*4) - 4T or 4TAX may be used as alternate.

(*5) - 6DAX may be used as alternate.

RETURN TO J-M RESEARCH FILE ROOM

X—INDICATES CHANGE — REASON: To show 4TAX as alternate for 4Z20 Fiber.

AUTHORITY FOR CHANGE: Letter of P.D. Cannon to H.J. O'Brien dated 3/29/55

FILE-HOLDERS	IND. ENGR.	WAUKEGAN	CONTROL LAB.	SUPR. QUAL. CONTROL	PROD. SUPT.	PLANT FINANCE OFFICE	RESEARCH	MGR. QUAL. CONTROL	DIR. QUAL. CONTROL

Page #1 of same specification issued 4/28/55.

SUPERSEDES:

DATE ISSUED JUN 14 1955

50132-10 ITED IN U.S.A.

MANUFACTURING SPECIFICATIONS

MANVILLE PLANT

TRANSITE PIPE DEPT.

PRODUCT: Transite Pipe Asbestos Fiber Blends

DIVISION IP

4 & 5

TP-1

PAGE NO. 1

X

FORMULA:

CANCELLED 6/14/55

C-171

Fiber	Bags	Weight	Per cent
4Y Munro (3*)	3-1/2	280#	20.0%
4Z20	3	300	20.0
321 Drop	1	150	10.0
Reprocessed		730	50.0
		1460#	100.0%

M-471-2 Blend

Tube Mandrels - Size 3" - 8"

Fiber	Bags	Weight	Per cent
S Blue (*1)	4	400	30.0%
4Y (*3)	3-1/2	280	22.1
4Z20	5	500	40.0
6D20 (*5)	1	100	7.9
		1280#	100.0%
Reprocessed		250#	20.0%

M-475-2 Blend

Tube Mandrels - Size 3" - 8"

Fiber	Bags	Weight	Per cent
Blue (*2)	4	400#	28.5%
C & C-3	1	125	8.8
4Y (*3)	3-1/2	280	20.0
4Z20 (*4)	5	500	35.5
6D20 (*5)	1	100	7.2
		1405#	100.0%
Reprocessed		280#	20.0%

Notes: (*1) - C & C-3 may be used as replacement for Blue Fiber when available.

(*2) - Varying weight combinations of A Blue, S Blue and NC Blue may be used due to difference in bag weights. See Blend M-472-1 for typical combinations.

(*3) - Or 4X may be used as alternate.

(*4) - 4T or 4TAX may be used as alternate.

(*5) - 6DAX may be used as alternate.

RETURN TO
J-M RESEARCH
FILE ROOM

X—INDICATES CHANGE — REASON: To show 4TAX and 6DAX as alternates for 4Z20 and 6D20 Fibers.

AUTHORITY FOR CHANGE: Letter of P.D. Cannon to H.J. O'Brien dated 3/29/55.

FILE-HOLDERS		IND. ENGR.	WAUKEGAN CONTROL LAB.	SUPR. QUAL. CONTROL	PROD. SUPT.	PLANT FINANCE OFFICE	RESEARCH LAB	MGR. QUAL. CONTROL	DIR. QUAL. CONTROL

SUPERSEDES: Page #1 of same specification issued 3/25/55.

DATE ISSUED APR 28 1955

MANUFACTURING SPECIFICATIONS

MANVILLE PLANT

TRANSITE PIPE DEPT.

PRODUCT: Transite Pipe Asbestos Fiber Blends

DIVISION IP

~~TP-1~~ PAGE NO. 1

CANCELLED 4/28/55

4-5

RECORD DEPARTMENT MAR 29 1955 B. BROWN

FORMULA:

C-171

Fiber	Bags	Weight	Per cent
4Y Munro	3-1/2	280#	20.0%
4Z20	3	300	20.0
321 Drop	1	150	10.0
Reprocessed		730	50.0
		1460#	100.0%

M-471-2 Blend

Tube Mandrels - Size 3" - 8"

Fiber	Bags	Weight	Per cent
S Blue*	4	400	30.0%
X 4Y***	3-1/2	280	22.1
4Z20	5	500	40.0
6D20	1	100	7.9
		1280#	100.0%
Reprocessed		250#	20.0%

*Note: C & G-3 may be used as replacement for Blue Fiber when available.

M-475-2 Blend

Tube Mandrels - Size 3" - 8"

Fiber	Bags	Weight	Per cent
Blue**	4	400#	28.5%
C & G-3	1	125	8.8
4Y***	3-1/2	280	20.0
4Z20****	5	500	35.5
6D20	1	100	7.2
		1405#	100.0%
Reprocessed		280#	20.0%

Notes: ** - Varying weight combinations of A Blue, S Blue and NC-Blue may be used due to difference in bag weights. See Blend M-472-1 for typical combinations.

*** - Or 4X may be used.

**** - Or 4T may be used.

RETURN TO
-M RESEARCH
FILE ROOM

X— INDICATES CHANGE — REASON: To show application of note to M471-2 Blend.

AUTHORITY — FOR CHANGE: Correction.

FILE-HOLDERS		IND. ENGR.	WAUKEGAN	CONTROL LAB.	SUPR. QUAL. CONTROL	PROD. SUPT.	PLANT FINANCE OFFICE	[illegible]	MGR. QUAL. CONTROL	DIR. QUAL. CONTROL

SUPERSEDES: Page #1 of same specification issued 2/23/55.

DATE ISSUED MAR 25 1955

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MANUFACTURING SPECIFICATIONS

MANVILLE PLANT

TRANSITE PIPE DEPT.

PRODUCT: Transite Pipe Asbestos Fiber Blends 4-5

DIVISION IP

TP-1 PAGE NO. 1

FORMULA:

CANCELLED 3/25/55

PIPE AND BOARD DEPARTMENT FEB 21 1955 S. BROWN

C-171

Fiber	Bags	Weight	Per cent
4Y Munro	3-1/2	280#	20.0%
4Z20	3	300	20.0
321 Drop	1	150	10.0
Reprocessed		730	50.0
		1460#	100.0%

M-471-2 Blend

Tube Mandrels - Size 3" - 8"

Fiber	Bags	Weight	Per cent
S Blue*	4	400	30.0%
4Y	3-1/2	280	22.1
4Z20	5	500	40.0
6D20	1	100	7.9
		1280#	100.0%
Reprocessed		250#	20.0%

X *Note: C & G-3 may be used as replacement for Blue Fiber when available.

XX M-475-2 Blend

Tube Mandrels - Size 3" - 8"

Fiber	Bags	Weight	Per cent
Blue**	4	400#	28.5%
C & G-3	1	125	8.8
4Y***	3-1/2	280	20.0
4Z20****	5	500	35.5
6D20	1	100	7.2
		1405#	100.0%
Reprocessed		280#	20.0%

Notes: ** - Varying weight combinations of A Blue, S Blue and NC-Blue may be used due to difference in bag weights. See Blend M-472-1 for typical combinations.

*** - Or 4X may be used.

**** - Or 4T may be used.

RETURN TO J-M RESEARCH FILE ROOM

X—INDICATES CHANGE — REASON: X - To show note on C & G-3 in M-471-2 Blend.
XX - To add M-475-2 Blend.

AUTHORITY FOR CHANGE: X - Letter of P.D. Cannon to H.J. O'Brien dated 1/4/55.
XX - Letter of A.R. Girardi to H.J. O'Brien " 1/24/55.

FILE-HOLDERS		IND.ENGR. WAUKEGAN LAB.	SUPR. QUAL. CONTROL	PROD. SUPT.	PLANT FINANCE OFFICE	RESEARCH LAB.	MGR. QUAL. CONTROL	DIR. QUAL. CONTROL
		CONTROL						

Page #1 of same specification issued 1/19/55.

SUPERSEDES:

DATE ISSUED FEB 23 1955

80132-10
ED IN U.S.A.

MANUFACTURING SPECIFICATIONS
TRANSITE PIPE

PLANT: MANVILLE

DEPT.

PRODUCT: Transite Pipe
Asbestos Fiber Blends

DIVISION: IP

TP-1

PAGE NO. 1

4-5

Machine — Fiber Blend

CANCELLED by spec 4/19/65

PIPE AND BOARD DEPARTMENT
DEC 16 1954
G. B. BROWN

FORMULA:

C-159

Fiber	Bags	Weight	Per cent
4Y Munro*	4-4/5	400#	29.4%
4Z20	2	200	12.3
6D20	1	100	6.1
Reprocessed		850	52.2
		1550#	100.0%

Tube Mandrel - Size 3" - 8"
M-461-2 Blend

X

Fiber	Bags	Wt.	%	Bags	Wt.	%	Bags	Wt.	%
NC-300 Blue	2	250#	20.0%	-	-	-	-	-	-
A Blue**	-	-	-	2	176#	14.3%	-	-	-
S Blue**	1-1/2	150	12.0	2	200	16.2	4	400#	32.0%
E4T	1	125	10.0	1	125	10.2	1	125	10.0
BC4%	1	125	10.0	1	125	10.2	1	125	10.0
6D20	2	200	16.0	2	200	16.2	2	200	16.0
4Z20	1-1/4	125	10.0	1-1/4	125	10.2	1-1/4	125	10.0
Munro 4X	3-1/2	280	22.0	3-1/2	280	22.7	3-1/2	280	22.0
		1255#	100.0%		1231#	100.0%		1255#	100.0%
Reprocessed		250#	20.0%		250#	20.0%		250#	20.0%

Notes: * - 4X Munro may be used as alternate when 4Y is not available.

** - NC-300 Blue may be used as alternate for "A" or "S" Fiber.

RETURN TO J-M RESEARCH

X—INDICATES CHANGE — REASON: To show correction to even bag weight of 400#.

AUTHORITY — FOR CHANGE: Correction.

FILE-HOLDERS	IND. ENGR.	WAUKEGAN CONTROL LAB.		SUPR. QUAL. CONTROL	PROD. SUPT.	PLANT FINANCE OFFICE	RESEARCH LAB.	MGR. QUAL. CONTROL	DIR. QUAL. CONTRO

SUPERSEDES: Page #1 of same specification issued 8/13/54.

DATE ISSUED: DEC 13 1954

60132-10
ED IN U.S.A.

MANUFACTURING SPECIFICATIONS

TRANSITE PIPE — DEPT.

MANVILLE — PLANT

PRODUCT: Transite Pipe Asbestos Fiber Blends

DIVISION IP

SPEC. NO. TP-1

PAGE NO. 1

405

Machine	Fiber Blend
#1	C-159
#2	M-461-2
#3	M-462-1
	M-463-1

CANCELLED 12/10/54

PIPE AND BOARD DEPARTMENT AUG 17 1954 G. B. BROWN

X **FORMULA:**

C-159

Fiber	Bags	Weight	Per Cent
4Y Munro*	4-4/5	400#	29.4%
4Z20	2	200	12.3
6D20	1	100	6.1
Reprocessed		850	52.2
		1550#	100.0%

Tube Mandrel Size 3" - 8" M-461-2

Fiber	Bags	Wt.	%	Bags	Wt.	%	Bags	Wt.	%
BC-300 Blue	2	250#	20.0%	-	-	-	-	-	-
A Blue**	-	-	-	2	17.6#	14.3%	-	-	-
S Blue**	1-1/2	150	12.0	2	200	16.2	3-1/2	350#	29.0%
H4T	1	125	10.0	1	125	10.2	1	125	10.4
BC4T	1	125	10.0	1	125	10.2	1	125	10.4
6D20	2	200	16.0	2	200	16.2	2	200	16.6
4Z20	1-1/4	125	10.0	1-1/4	125	10.2	1-1/4	125	10.4
Munro 4X	3-1/2	280	22.0	3-1/2	280	22.7	3-1/2	280	23.2
		1255#	100.0%		1231#	100.0%		1205#	100.0%
Reprocessed		250#	20.0%		250#	20.0%		240#	20.0%

Notes: * - 4X Munro may be used as alternate when 4Y is not available.

** - BC-300 Blue may be used as alternate for "A" or "S" Fiber.

RETURN TO J-M RESEARCH

X — INDICATES CHANGE — REASON: To show formulae using varying combinations of blue fibers.

AUTHORITY FOR CHANGE: Additional Information.

FILE-HOLDERS	IND. ENGR.	P. & S.	WAUKEGAN CONTROL LAB.	SUPR. QUAL. CONTROL	PROD. SUPT.	PLANT FINANCE OFFICE	RESEARCH LAB.	MGR. QUAL. CONTROL	DIR. QUAL. CONTROL

SUPERSEDES: Page #1 of same specification issued 7/6/54.

DATE ISSUED: AUG 13 1954

M 50122-10 PRINTED IN U.S.A.

MANUFACTURING SPECIFICATIONS

TRANSITE PIPE DEPT.

MANVILLE PLANT

PRODUCT: 425 DIVISION TP

Transite Pipe
Asbestos Fiber Blends

SPEC. NO. TP-1

PAGE NO. 1

CANCELLED 8/13/54

PIPE AND BOARD DEPARTMENT JUL 9 1954 G. B. BROWN

X

Machine	Fiber Blend
#1	C-159
#2	M-461-2
#3	M-462-1
	M-463-1

FORMULA:

C-159

Fiber	Bags	Weight	Per Cent
4Y Munro*	4-4/5	400#	29.4%
4Z20	2	200	12.3
6D20	1	100	6.1
Reprocessed		850	52.2
		1550#	100.0%

Tube Mandrel
Size 3" - 8" M461-2

X

Fiber	Bags	Weight	Per Cent
NC-300 Blue	-	250#	20.0%
Blue "A" or "S"**	-	150	12.0
B4T	1	125	10.0
BC4T	1	125	10.0
6D20	2	200	16.0
4Z20	1-1/4	125	10.0
Munro 4X	2-4/5	280	22.0
		1255#	100.0%
Reprocessed		250#	20.0%

Notes: * - 4X Munro may be used as alternate when 4Y is not available.

** - NC-300 Blue may be used as alternate for "A" or "S" Fiber.

RETURN TO J-M RESEARCH

X—INDICATES CHANGE — REASON: To show authorization of M461-2, M462-1 and M463-1 Blends.

AUTHORITY FOR CHANGE: Letter of C. LaGattuta to H.J. O'Brien dated 6/21/54.

FILE-HOLDERS	IND. ENGR.	P. & S.	WAUKEGAN CONTROL LAB.	SUPR. QUAL. CONTROL	PROD. SUPT.	PLANT FINANCE OFFICE	[illegible]	MGR. QUAL. CONTROL	DIR. QUAL. CONTROL

SUPERSEDES: Page #1 of same specification issued 6/4/54 and Notice of Deviation ND-425 issued 6/22/54.

DATE ISSUED JUL 6 1954

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MANUFACTURING SPECIFICATIONS
TRANSITE PIPE

MANVILLE DEPT.

PLANT

PRODUCT: Transite Pipe
Asbestos Fiber Blends

DIVISION

TP-1

PAGE NO. 1

CANCELLED 4-5-55 7/6/54

Machine	Fiber Blend
#1	C-159
#2	M-442-1
#3	M-440-1
	M-459-1

PIPE AND BOARD DEPARTMENT
JUN 8 1954
G. B. BROWN

FORMULA:

C-159

	Fiber	Bags	Weight	Per Cent
X	4Y Munro*	4-4/5	400#	29.4%
	4Z20	2	200	12.3
	6D20	1	100	6.1
XX	Reprocessed		850	52.2
			1550#	100.0%

Tube Mandrel
Size 3" - 8" M-442-1

	Fiber	Bags	Weight	Per Cent
X	Blue "A" or "S"**	-	220#	20.1%
	N4T	1	125	11.5
	BC4T	1	125	11.5
	6D20	1-1/2	150	13.8
	4Z20	3-1/2	350	32.1
	Munro 4X	1-1/2	150	11.0
			1090#	100.0%
	Reprocessed		110#***	10.0%

RETURN TO J-M RESEARCH FILE ROOM

Notes: * - 4X Munro may be used as alternate when 4Y is not available.
** - NC-300 Blue may be used as alternate for "A" or "S" Fiber.
*** - Use 220# on -2 basis.

X - To show replacement of 4X Munro by 4Y Munro as standard and adoption of NC-300 as alternate for "A" or "S" Blue. XX - Correction of batch weight.

X—INDICATES CHANGE — REASON:

X - Letter of C. LaCattuta to H.J. O'Brien dated 5/18/54. XX- Correction.

AUTHORITY FOR CHANGE

CONTROL

FILE-HOLDERS	IND. ENGR.	P. & S.	MAUREEN	LAB.	SUPR. QUAL. CONTROL	PROD. SUPT.	PLANT FINANCE OFFICE	[illegible]	MGR. QUAL. CONTROL	DIR. QUAL. CONTROL

Page #1 of same specification issued 1/15/54.

SUPERSEDES:

DATE ISSUED JUN 4 1954

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MANUFACTURING SPECIFICATIONS

Transite Pipe DEPT.

Watson PLANT

PRODUCT: Transite Pipe Asbestos Fibre Blends

DIVISION IP

SPEC. NO. TP-1

PAGE NO. 1

I. Products

M 460-2
M 459-1
C 159

X

M 460-2 Fibre Blend

For Pressure and Sewer Pipe Products, Sizes 2" thru 8"

Purch. Spec. No.	Material		Willow Batch Wt. Lbs.	%
61920	"A" or "S" Blue	Weighed	500	30.6
	Vimy H4T or BC4T	3 Bags (125# ea.)	375	22.9
	Danville 4Z	3½ Bags (100# ea.)	350	21.4
	Danville 6D	2½ Bags (100# ea.)	250	15.3
	Munro 4X	2 Bags (80# ea.)	160	9.8
	Total		1635	100.0
	No. 2 Reprocessed Material		325	

M 459-1 Fibre Blend

For Pressure and Sewer Pipe Products, sizes 10" thru 36"

Purch. Spec. No.	Material		Willow Batch Wt. Lbs.	%
61920	"A" or "S" Blue	Weighed	325	21.8
	Vimy H4T or BC4T	4 Bags (125# ea.)	500	33.6
	C & G #3	½ Bag (125# ea.)	62	4.2
	C & G #4	½ Bag (125# ea.)	62	4.2
	Danville 4Z	3 Bags (100# ea.)	300	20.1
	Munro 4X	3 Bags (80# ea.)	240	16.1
	Total		1489	100.0
	No. 2 Reprocessed Material		150	
			1639	

CANCELLED BY 6/24/54

X— INDICATES CHANGE — REASON: To show current Fibre Blends

AUTHORITY — FOR CHANGE: P. B. Cannon's letter 3-8-54 re Fibre Blends

FILE-HOLDERS: SUPR. QUAL. CONTROL | PROD. SUPT. | PLANT FINANCE OFFICE | RESEARCH LAB. | MGR. QUAL. CONTROL | DIR. QUAL. CONTROL

SUPERSEDES: Page 1 of same Specification issued 1-29-54

DATE ISSUED 5-3-54

80132-10
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MANUFACTURING SPECIFICATIONS

TRANSITE PIPE DEPT.

MANVILLE PLANT

PRODUCT: Transite Pipe Asbestos Fiber Blends

DIVISION IP

425

SPEC. NO. TP-1

PAGE NO. #1

PIPE AND BOARD DEPARTMENT JAN 20 1954 C. B. BROWN

Machine	Fiber Blend
#1	C-159
#2	M-442-1
#3	M-440-1
	M-459-1

X

CANCELLED 6/4/54

FORMULA:

C-159

Fiber	Bags	Weight	Per Cent
4X Munro	4-4/5	400#	29.4%
4Z20	2	200	12.3
6D20	1	100	6.1
Reprocessed		850	52.2
		1630#	100.0%

Tube Mandrel
Size 3" - 8" M-442-1

X

Fiber	Bags	Weight	Per Cent
Blue "A" or "S"	-	220#	20.1%
H4T	1	125	11.5
BC4T	1	125	11.5
6D20	1-1/2	150	13.8
4Z20	3-1/2	350	32.1
Munro 4X	1-1/2	120	11.0
		1090#	100.0%
Reprocessed		110#	0.0%

Note: On -2 basis use 220# of reprocessed.

RETURN TO J-M RESEARCH FILE ROOM

X— INDICATES CHANGE — REASON: To show revised formula using "A" or "S" Blue Fiber in M-442-1 and approval of M-459-1.

AUTHORITY — FOR CHANGE: Letter of P.D. Cannon to H.J. O'Brien dated 12/22/53.

FILE-HOLDERS	CONTROL LAB.	P. & S.	IND. ENGR.	WKG.	SUPR. QUAL. CONTROL	PROD. SUPT.	PLANT FINANCE OFFICE	RESEARCH LAB.	MGR. QUAL. CONTROL	DIR. QUAL. CONTROL

SUPERSEDES: Page 1 of same specification issued 9/22/53.

DATE ISSUED JAN 15 1954

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MANUFACTURING SPECIFICATIONS

TRANSITE PIPE DEPT.

MANVILLE PLANT

PRODUCT: Transite Pipe Asbestos Fibre Blends

DIVISION IP

SPEC. NO. TP-1

PAGE NO. #1

CANCELLED 4/24/53

PIPE AND BOARD DEPARTMENT AUG 6 1952 G. B. BROWN

Machine	Fibre Blend
#1	C-118
	C-121
#2	M-360-1
#3	M-372-1 or 2
	M-357-1 or 2

X Formula:

C-118

Fibre	Bags	Weight	Per Cent
Danville 4Z *	3	300#	19.4
Munro 4X	10	500	32.3
Reprocessed	-	750	48.3
		1,550#	100.0%

*Note: or 4T04

C-121

Fibre	Bags	Weight	Per Cent
4X Munro	16	800#	51.5%
Reprocessed Material	-	750	48.5
		1,550#	100.0%

Note: C-118 or C-121 Fibre Blend may be used on #1 Machine depending upon availability of 4Z and 4X Fibre.
4 to 4 fibre is used as an alternate for Danville 4Z fibre. letter 10/8/52 J R Robson

M-357
24" Through 36" Pipe

Fibre	Bags	Weight	Per Cent
"S" Blue	3	300#	23.0%
"A" Blue	1	88	7.0
4X Munro	2-1/2**	125	9.8
Vimy H4T	2	250	19.8
Vimy BC4T	2	250	19.8
Danville 4M28	2-1/2	250	19.8
		1,263#	100.0%

**Note: Based on 50# Bags, 80# Bags would be 1-1/2 bags, 120 Lbs.

M-357-1
24" Through 36" Pipe

Use M-357 Formula and add 10% (126#) Reprocessed per batch.

M-357-2
24" Through 36" Pipe

Use M-357 Formula and add 20% (252#) Reprocessed per batch.

AUG 4 1952

RETURN TO J-M RESEARCH

X— INDICATES CHANGE — REASON: To show current active fibre blends.

Letter of P. D. Cannon to H. J. O'Brien dated 1/30/52.

E. R. WILLIAMS

AUTHORITY — FOR CHANGE

FILE-HOLDERS | Ind. Engr. | Wkg. | SUPR. QUAL. CONTROL | PROD. SUPT. | PLANT FINANCE OFFICE | RESEARCH LAB. | MGR. QUAL. CONTROL | DIR. QUAL. CONTROL

SUPERSEDES: Page #1 of same specification issued 10/20/51 and Notice of Deviation IND-856 issued 6/9/52.

DATE ISSUED AUG 1 1952

50132-10 PRINTED IN U.S.A.

MANUFACTURING SPECIFICATIONS

MANVILLE DEPT.

TRANSITE PIPE PLANT

PRODUCT: Transite Pipe Asbestos Fibre Blends

DIVISION IP

TP-1

PAGE NO. #1

425

	Machine	Fibre Blend
X	#1	C-121
	#2	M-360-1
	#3	M-358-1 or -2 M-357-1 or -2

CANCELLED 10/1/51

PAPER PIPE BOARD RESEARCH
OCT 28 1951
G.S.

X Formula:

C-121

Fibre	Bags	Weight	Per Cent
4X Munro	16	800#	51.5%
Reprocessed Material	-	750	48.5
		1,550#	100.0%

M-357
24" Through 36" Pipe

Fibre	Bags	Weight	Per Cent
"S" Blue	3	300#	23.8%
"A" Blue	1	88	7.0
4X Munro	2-1/2*	125	9.8
Vimy H4T	2	250	19.8
Vimy BC4T	2	250	19.8
Danville 4M28	2-1/2	250	19.8
		1,263#	100.0%

*Note: Based on 50# Bags. 80 Lb. Bags would be 1-1/2 bags, 120 Lbs.

M-357-1
24" Through 36" Pipe

Use M-357 Formula and add 10% (126#) Reprocessed per batch.

X M-357-2
24" Through 36" Pipe

Use M-357 Formula and add 20% (252#) Reprocessed per batch.

RECEIVED
OCT 22 1951
E. R. WILLIAMS

RETURN TO I-M RESEARCH

X—INDICATES CHANGE — REASON: To show current active fibre blends.

AUTHORITY FOR CHANGE — Letter of P.D. Cannon to H.J. O'Brien dated 9/27/51.

FILE-HOLDERS	Ind.Engr.	Wkg.			SUPR. QUAL. CONTROL	PROD. SUPT.	PLANT FINANCE OFFICE	RESEARCH	MGR. QUAL. CONTROL	DIR. QUAL. CONTROL

SUPERSEDES: Page #1 of same specification issued 8/20/51 and Notice of Deviation IND-708 dated 10/1/51.

DATE ISSUED OCT 20 1951

M 50132-10
NTED IN U.S.A.

MANUFACTURING SPECIFICATIONS

MANVILLE PLANT

TRANSITE PIPE DEPT.

PRODUCT: Transite Pipe Asbestos Fibre Blends.

DIVISION IP

SPEC. NO. TP-1

PAGE NO. #1

425

CANCELLED 10-20-51

PAPER PIPE AUG 30 1951 Q.R.

	Machine	Fibre Blend
	#1	C-118
	#2	M-350-1 M-353-1
X	#3	M-352-2 M-351-2 M-357 M-357-1

Formula:

C-118

Fibre	Bags	Weight	Per Cent
4X Munro	10	500#	32.2%
4Z20	3	300	19.4
Scrap	-	750	48.4
		1,550#	100.0%

M-357
24" Through 36" Pipe

	Fibre	Bags	Weight	Per Cent
X	"S" Blue	3	300"	23.8%
	"A" Blue	1	88	7.0
	4X Munro	2-1/2*	125	9.8
	Vimy H4T	2	250	19.8
	Vimy BC4T	2	250	19.8
	Danville 4M28	2-1/2	250	19.8
			1,263#	100.0%

*Note: Based on 50# Bags. 80 Lb. Bags would be 1-1/2 bags, 120 Lbs.

M-357-1
24" Through 36" Pipe

Use M-357 Formula and add 10% (126#) Reprocessed per batch.

AUG 29 1951

E. R. WILLIAMS

RETURN TO J-M RESEARCH FILE ROOM

X— INDICATES CHANGE — REASON: To show current active fibre blends.

AUTHORITY FOR CHANGE — Letter of P.D. Cannon to H.J. O'Brien, dated 8/16/51.

FILE-HOLDERS	Ind.	Eng.	Mkg.		SUPR. QUAL. CONTROL	PROD. SUPT.	PLANT FINANCE OFFICE	RESEARCH	MGR. QUAL. CONTROL	DIR. QUAL. CONTROL

SUPERSEDES: Page #1 of same spec. issued 5/10/51

DATE ISSUED AUG 20 1951

M 80182-10
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MANUFACTURING SPECIFICATIONS

MANVILLE DEPT.

TRANSITE PIPE PLANT

PRODUCT: Transite Pipe Asbestos Fibre Blends.

DIVISION IP

SPEC. NO. TP-1

PAGE NO. #1

Machine	Fibre Blend
#1	C-118
#2	M-350-1
	M-343-1
#3	M-352-2
	M-351-1
	M-160

CANCELLED 5/10/51

PAPER PIPE BOARD RESEARCH MAY 16 1951

Formula:

C-118

Fibre	Bags	Weight	Per Cent
4X Munro	10	500#	32.2%
4Z20	3	300	19.4
Scrap	-	750	48.4
		1,550#	100.0%

M-160-1

Fibre	Bags	Weight	Per Cent
"S" Blue	2	200#	16.8%
"A" Blue	1	88	7.4
C&G #3	1-1/2	188	15.8
C&G #4	1-1/2	63	5.3
Vimy H4T	2	250	21.05
Vimy BC4T	2	250	21.05
Danville 4M28	1-1/2	150	12.6
		1,189#	100.00%
Reprocessed		138	11.6
		1,327#	

RECEIVED MAY 14 1951 E. F. WILLIAMS

RETURN TO J-M RESEARCH

X—INDICATES CHANGE — REASON: To show current active fibre blends.

AUTHORITY FOR CHANGE — Letter of P.D. Cannon to H.J. O'Brien, dated 4/10/51.

FILE-HOLDERS	Ind. Eng.	Wkg.		SUPR. QUAL. CONTROL	PROD. SUPT.	PLANT FINANCE OFFICE	RESEARCH LAB.	MGR. QUAL. CONTROL	DIR. QUAL. CONTROL

SUPERSEDES: Page #1 of same specification issued 4/17/51.

DATE ISSUED MAY 10 1951

50132-10
ED IN U. S. A.

MANUFACTURING SPECIFICATIONS

PLANT: MANVILLE

DEPT.: TRANSITE PIPE

PRODUCT: Transite Pipe Asbestos Fibre Blend

DIVISION: IP

SPEC. NO. TP-1

PAGE NO. 1

CANCELLED 8/16/50

X Formula:

Spec. No.	Material	M-306-2 Lbs.	M-306-2 %	M-306-2 Bags	M-313-2 Lbs.	M-313-2 %	M-313-2 Bags
-	Blue Fibre	200#	15.7%	2	200#	15.5%	2
-	C&G #3	62.5	4.9	1/2	62.5	4.9	1/2
-	Vimy H4T	-	-	-	312.5	24.2	2-1/2
-	Vimy (H4T or BC4T)	312.5	24.5	2-1/2	62.5	4.9	1/2
-	Danville 4M	700	54.9	7	650	50.5	6-1/2
		1275#	100.0%		1287.5#	100.0%	
M.S. RS-63	Reprocessed	255	20.0%		258	20.0%	
	TOTAL	1530#	120.0%		1545.5#	120.0%	

		C-104 Approx.%	"S" Blue Lbs.	"S" Blue bags	"A" Blue Lbs.	"A" Blue bags
-	"S" Blue Fibre	6%	50#	1/2	-	-
-	"A" Blue Fibre		-	-	44#	1/2
-	C&G #4 Fibre	15	125	1	125	1
-	4Z Fibre	49	400	4	350	3-1/2
M.S. RS-63	Reprocessed Fibre	30	245	-	240	-
		100%	820#		759#	
M.S. RS-63	Reprocessed as Scrap	100%	820#		759#	

Note: 6D20 Fibre may be substituted when necessary for reprocessed as fibre.

RETURN TO J-M RESEARCH FILE COPY

RECEIVED JUL 3 1950 RESEARCH LABORATORY

X— INDICATES CHANGE — REASON: To show new approved formula.

AUTHORITY FOR CHANGE — (See Reverse side)

FILE-HOLDERS					SUPR. QUAL. CONTROL	PROD. SUPT.	PLANT FINANCE OFFICE	RESEARCH LAB.	MGR. QUAL. CONTROL	DIR. QUAL. CONTROL
	Ind. Eng.		Mtce.							

SUPERSEDES: Page #1 of same specification issued 3/7/50

DATE ISSUED JUN 30 1950

H 50133-10 TED IN U.S.A.

MANUFACTURING SPECIFICATIONS

MANVILLE _____ PLANT

TRANSITE PIPE _____ DEPT.

PRODUCT: Transite Pipe
Asbestos Fiber Blends

DIVISION IP

SPEC. NO. TP-1

PAGE NO. 2

CANCELLED 9/16/55

FORMULA:

M-472-1 Blend
Swing Mandrels 10" - 36"

	Fiber	Bags	Wt.	%	Bags	Wt.	%	Bags	Wt.	%
	A Blue (*1)	-	-	-	-	-	-	2	176#	29.5%
	S Blue (*1)	-	-	-	4	400#	31.0%	2	200	
	MC Blue (*1)	3	375#	29.5%	-	-	-	-	-	-
	Normandie 4T (*2) BC4T (*3)	3	375	29.5	3	375	29.0	3	375	29.5
X	4Z20 (*5)	2	200	15.8	2	200	15.4	2	200	15.8
	4Y (*4)	4	320	25.2	4	320	24.6	4	320	25.2
			1270#	100.0%		1295#	100.0%		1271#	100.0%
	Reprocessed		127#	10.0%		130#	10.0%		127#	10.0%

Notes: (*1) - C & G-3 may be used as replacement for Blue Fiber.

(*2) - Depending on availability of Normandie 4T, (may be marked N-179-4T) BC4T, or VH4T may be used as alternates.

(*3) - BC4T may be replaced by 125# of C&G-4 in which case blend shall be designated M-474. For example: 29.5% of BC4T would be replaced by a combination of 19.7% of BC4T and 9.8% of C & G-4.

(*4) - Or 4X may be used.

(*5) - 4TAX may be used as alternate.

MANUFACTURING INSTRUCTIONS:

1. Charge batch materials into skip hoist in the most convenient manner and order. Mix in top mixer for a minimum of five minutes.
2. Feed fiber mixture into willow at the rate of approximately 3000# to 4500# per hour.
3. Submit composite of fiber blend for all shifts to Quality Control for buoyancy test.

RETURN TO J-M RESEARCH FILE ROOM

X—INDICATES CHANGE — REASON: To show 4TAX as alternate for 4Z20.

AUTHORITY FOR CHANGE: Letter of P.D. Cannon to H.J. O'Brien dated 3/29/55.

FILE-HOLDERS		IND.ENGR. WAUKEGAN LAB.	SUPR. QUAL. CONTROL	PROD. SUPT.	PLANT FINANCE OFFICE	RESEARCH CONTROL	MGR. QUAL. CONTROL	DIR. QUAL. CONTROL

SUPERSEDES: Page #2 of same specification issued 3/25/55.

DATE ISSUED APR 28 1955

MANUFACTURING SPECIFICATIONS

MANVILLE _____ PLANT

TRANSITE PIPE _____ DEPT.

PRODUCT: Transite Pipe
Asbestos Fiber Blends

DIVISION IP

SPEC. NO. TP-1

PAGE NO. 2

CANCELLED 4/28/55

FORMULA:

	M-472-1 Blend Swing Mandrels 10" - 36"								
Fiber	Bags	Wt.	%	Bags	Wt.	%	Bags	Wt.	%
A Blue*	-	-	-	-	-	-	2	176#	29.5%
S Blue*	-	-	-	4	400#	31.0%	2	200	
NC Blue*	3	375#	29.5%	-	-	-	-	-	-
Normandie 4T** / BC4T***	3	375	29.5	3	375	29.0	3	375	29.5
4Z20	2	200	15.8	2	200	15.4	2	200	15.8
X 4Y****	4	320	25.2	4	320	24.6	4	320	25.2
		1270#	100.0%		1295#	100.0%		1271#	100.0%
Reprocessed		127#	10.0%		130#	10.0%		127#	10.0%

Notes: * - C & G-3 may be used as replacement for Blue Fiber.

** - Depending on availability of Normandie 4T, BC4T, or VH4T may be used as alternates.

*** - BC4T may be replaced by 125# of C & G-4 in which case blend shall be designated M-471. For example: 29.5% of BC4T would be replaced by a combination of 19.7% of BC4T and 9.8% of C & G-4.

X **** - Or 4X maybe used.

MANUFACTURING INSTRUCTIONS:

1. Charge batch materials into skip hoist in the most convenient manner and order. Mix in top mixer for a minimum of five minutes.
2. Feed fiber mixture into willow at the rate of approximately 3000# to 4500# per hour.
3. Submit composite of fiber blend for all shifts to Quality Control for buoyancy test.

RETURN TO
J-M RESEARCH
FILE ROOM

RD DEPARTMENT
MAR 29 1955
C. B. BROWN

X—INDICATES CHANGE —REASON: To show note on 4X Fiber.

AUTHORITY — FOR CHANGE: Correction.

FILE-HOLDERS	IND. ENGR.	WAUKEGAN CONTROL LAB.	SUPR. QUAL. CONTROL	PROD. SUPT.	PLANT FINANCE OFFICE	RESEARCH	MGR. QUAL. CONTROL	DIR. QUAL. CONTROL

SUPERSEDES: Page #2 of same specification issued 2/23/55.

DATE ISSUED MAR 25 1955

M 80132-10
ITED IN U.S.A.

MANUFACTURING SPECIFICATIONS

MANVILLE PLANT

TRANSITE PIPE DEPT.

PRODUCT: Transite Pipe
Asbestos Fiber Blends

DIVISION IP

SPEC. NO. TP-1

PAGE NO. 2

X

FORMULA:

CANCELLED 3/25/55

	M-472-1 Blend Swing Mandrels 10" - 36"								
Fiber	Bags	Wt.	%	Bags	Wt.	%	Bags	Wt.	%
A Blue*	-	-	-	-	-	-	2	176#	29.5%
S Blue*	-	-	-	4	400#	31.0%	2	200	
NC Blue*	3	375#	29.5%	-	-	-	-	-	-
Normandie 4T** / BC4T***	3	375	29.5	3	375	29.0	3	375	29.5
4Z20	2	200	15.8	2	200	15.4	2	200	15.8
4Y	4	320	25.2	4	320	24.6		320	25.2
		1270#	100.0%		1295#	100.0%		1271#	100.0%
Reprocessed		127#	10.0%		130#	10.0%		127#	10.0%

PIPE LINE BOARD DEPT. FEB 24 1955 G. B. BROWN

Notes: * - C & G-3 may be used as replacement for Blue Fiber.

** - Depending on availability of Normandie 4T, BC4T, or VH4T may be used as alternates.

*** - BC4T may be replaced by 125# of C & G-4 in which case blend shall be designated M-474. For example: 29.5% of BC4T would be replaced by a combination of 19.7% of BC4T and 9.8% of C & G-4.

MANUFACTURING INSTRUCTIONS:

1. Charge batch materials into skip hoist in the most convenient manner and order. Mix in top mixer for a minimum of five minutes.
2. Feed fiber mixture into willow at the rate of approximately 3000# to 4500# per hour.
3. Submit composite of fiber blend for all shifts to Quality Control for buoyancy test.

RETURN TO J-M RESEARCH FILE ROOM

X—INDICATES CHANGE — REASON: To show note on C & G-3 and example in note on BC4T.

AUTHORITY FOR CHANGE: Letter of P.D. Cannon to H.J. O'Brien dated 1/4/55.

FILE-HOLDERS		IND. ENGR.	WAUKEGAN CONTROL LAB.	SUPR. QUAL. CONTROL	PROD. SUPT.	PLANT FINANCE OFFICE	RESEARCH LAB.	MGR. QUAL. CONTROL	DIR. QUAL. CONTROL

SUPERSEDES: Page #2 of same specification issued 1/28/55.

DATE ISSUED FEB 23 1955

MANUFACTURING SPECIFICATIONS

TRANSITE PIPE — PLANT

MANVILLE — DEPT.

PRODUCT: Transite Pipe Asbestos Fiber Blends

DIVISION IP

SPEC. NO. TP-1

PAGE NO. 2

CANCELLED 2/3/66

PIPE AND BOARD DEPARTMENT FEB 1 1955 G. B. BROWN

X

FORMULA:

	M-472-1 Blend Swing Mandrels 10" - 36"								
Fiber	Bags	Wt.	%	Bags	Wt.	%	Bags	Wt.	%
A Blue	-	-	-	-	-	-	2	176#	29.5%
S Blue	-	-	-	4	400#	31.0%	2	200	
NC Blue	3	375#	29.5%	-	-	-	-	-	-
Normandie 4T* / BC4T**	3	375	29.5	3	375	29.0	3	375	29.5
4Z20	2	200	15.8	2	200	15.4	2	200	15.8
4Y	4	320	25.2	4	320	24.6	4	320	25.2
		1270#	100.0%		1295#	100.0%		1271#	100.0%
Reprocessed		127#	10.0%		130#	10.0%		127#	10.0%

Notes: * - Depending on availability of Normandie 4T, BC4T, or VH4T may be used as alternates.

** - BC4T may be replaced by 125# of C & G-4 in which case blend shall be designated M-474.

MANUFACTURING INSTRUCTIONS:

1. Charge batch materials into skip hoist in the most convenient manner and order. Mix in top mixer for a minimum of five minutes.
2. Feed fiber mixture into willow at the rate of approximately 3000# to 4500# per hour.
3. Submit composite of fiber blend for all shifts to Quality Control for buoyancy test.

RETURN TO
J-M RESEARCH
FILE ROOM

X — INDICATES CHANGE — REASON: To M-472-1 Blend as standard and M474 as alternate.

AUTHORITY FOR CHANGE: Correction.

FILE-HOLDERS: IND. ENGR. WAUKEGAN LAB. CONTROL | SUPR. QUAL. CONTROL | PROD. SUPT. | PLANT FINANCE OFFICE | RESEARCH LAB. | MGR. QUAL. CONTROL | DIR. QUAL. CONTROL

SUPERSEDES: Page #2 of same specification issued 1/19/55. (Not approved by DHQ.)

DATE ISSUED JAN 26 1955

MANUFACTURING SPECIFICATIONS	PRODUCT:	DIVISION IP	SPEC. NO.
TRANSITE PIPE	Transite Pipe		TP-1
PLANT	Asbestos Fiber Blends	425	PAGE NO.
MANVILLE			2
DEPT.			

X FORMULA:

CANCELLED 1/12/55

M-474-1 Blend
Swing Mandrels 10" - 36"

Fiber	Bags	Wt.	%	Bags	Wt.	%	Bags	Wt.	%
A Blue	-	-	-	-	-	-	2	176#)	29.5%
S Blue	-	-	-	4	400#	31.0%	2	200)	
NC-Blue	3	375#	29.5%	-	-	-	-	-	-
Normandie 4T*	1	125)	29.5%	1	125)	29.0%	1	125)	29.5%
BC4T	1	125)		1	125)		1	125)	
C & G-4	1	125)		11	125)		1	125)	
4Z20	2	200	15.8	2	200	15.4	2	200	15.8
4Y	4	320	25.2	4	320	24.6	4	320	25.2
		1270#	100.0%		1295#	100.0%		1271#	100.0%
Reprocessed		127#	10.0%		130#	10.0%		127#	10.0%

RECEIVED BOARD DEPARTMENT JAN 20 1955 B. BR.

*Note: Depending on availability of Normandie 4T, BC4T or VH4T may be used as alternates.

MANUFACTURING INSTRUCTIONS:

1. Charge batch materials into skip hoist in the most convenient manner and order. Mix in top mixer for a minimum of five minutes.

2. Feed fiber mixture into willow at the rate of approximately 3000# to 4500# per hour.

3. Submit composite of fiber blend for all shifts to Quality Control for buoyancy test.

RETURN TO
J-M RESEARCH
FILE ROOM

X—INDICATES CHANGE — REASON: Change to 1955 Blends.

AUTHORITY — FOR CHANGE: Letter of A.R. Girardi to H.J. O'Brien dated 1/6/55 and letter of P.D. Cannon to Plant Managers dated 1/4/55.

CONTROL

FILE-HOLDERS	IND. ENGR.	WAUKEGAN LAB.		SUPR. QUAL. CONTROL	PROD. SUPT.	PLANT FINANCE OFFICE	RESEARCH LAB.	MGR. QUAL. CONTROL	DIR. QUAL. CONTROL

SUPERSEDES: Page #2 of same specification issued 7/22/54.

DATE ISSUED JAN 19 1955

50122-10
TED IN U.S.A.

CANCELLED by spec 1/19/66

PIPE AND BOARD DEPARTMENT JUL 23 1954 G. B. HR' W

FORMULA: (Continued)

Swing Mandrel Sizes
10" - 36"

M-462-1

Fiber	Bags	Weight	Per Cent
Blue "A" or "S"*	-	313#	29.0%
Vimy H4T	1-1/2	188	17.4
BC4T	1-1/2	188	17.4
4Z20	1-1/2	150	13.9
4X Munro	3	240	22.3
		1,079#	100.0%
Reprocessed		108#	10.0%

Note: On -2 basis use 200# Reprocessed.

M-463-1**

Fiber	Bags	Weight	Per Cent
Blue "A" or "S"*	-	225#	21.9%
Vimy H4T	1-1/3	168	16.4
BC4T	1-1/3	168	14.4
4Z20	1-3/5	160	15.5
4X or 4Y Munro	2-1/2	200	19.5
C & G #3	1/2	63	6.2
C & G #4	1/3	42	4.1
		1,026#	100.0%
Reprocessed		103#	10.0%

Notes: * - NC-300 Blue may be used as alternate for "A" or "S" Blue Fiber.

** - C & G Fibers to be used in ratio in which they are in stock and/or received.

MANUFACTURING INSTRUCTIONS:

1. Charge batch materials into skip hoist in the most convenient manner and order. Mix in top mixer for a minimum of five minutes.
2. Feed fiber mixture into willow at the rate of approximately 3000# to 4500# per hour.
3. Submit composite of fiber blend for all shifts to Quality Control for buoyancy test.

X — INDICATES CHANGE — REASON: To change amounts in 4Z20 and 4X Fiber in Blend M-463-1.

AUTHORITY FOR CHANGE — Wire of A.R. Girardi to H.J. O'Brien dated 6/25/54.

FILE-HOLDERS	IND.ENGR.	P. & S.	WAUKEGAN	CONTROL LAB.	SUPR. QUAL. CONTROL	PROD. SUPT.	PLANT FINANCE OFFICE	RESEARCH LAB.	MGR. QUAL. CONTROL	DIR. QUAL. CONTROL

SUPERSEDES: Page #2 of same specification issued 7/6/54.

DATE ISSUED JUL 22 1954

RETURN TO J-M RESEARCH FILE ROOM

X 80132-10
PRINTED IN U.S.A.

CANCELLED 7/22/54

FORMULA: (Continued)

Swing Mandrel Sizes
10" - 36"

M462-1

Fiber	Bags	Weight	Per Cent
Blue "A" or "S"*	-	313#	29.0%
Vimy H4T	1-1/2	188	17.4
BC4T	1-1/2	188	17.4
4Z20	1-1/2	150	13.9
4X Munro	3	240	22.3
		1079#	100.0%
Reprocessed		108#	10.0%

Note: On -2 basis use 200# Reprocessed.

M463-1**

Fiber	Bags	Weight	Per Cent
Blue "A" or "S"*	-	225#	21.9%
Vimy H4T	1-1/3	168	16.4
BC4T	1-1/3	168	16.4
4Z20	2	200	19.5
4X Munro	2	160	15.5
C & G #3	1/2	63	6.2
C & G #4	1/3	42	4.1
		1026#	100.0%
Reprocessed		103#	10.0%

PIPE AND BOARD DEPARTMENT JUL 9 1954 G. B. BROWN

Notes: * - NC-300 Blue may be used as alternate for "A" or "S" Blue Fiber.

** - C & G Fibers to be used in ratio in which they are in stock and/or received.

MANUFACTURING INSTRUCTIONS:

1. Charge batch materials into skip hoist in the most convenient manner and order. Mix in top mixer for a minimum of five minutes.

2. Feed fiber mixture into willow at the rate of approximately 3000# to 4500# per hour.

3. Submit composite of fiber blend for all shifts to Quality Control for buoyancy test.

RETURN TO J-M RESEARCH

X—INDICATES CHANGE — REASON: XX - To show 3000 lbs. X - To show authorization of M462-1 and M463-1 Blends.

AUTHORITY FOR CHANGE X - Letter of C. LaGattuta to H.J. O'Brien dated 6/21/54. XX-Correction

FILE-HOLDERS: IND.ENGR. | P. & S. | WAUKEGAN CONTROL LAB. | SUPR. QUAL. CONTROL | PROD. SUPT. | PLANT FINANCE OFFICE | [illegible] | MGR. QUAL. CONTROL | DIR. QUAL. CONTROL

SUPERSEDES: Page #2 of same specification issued 6/4/54 and Notice of Deviation MD-426 issued 6/22/54.

DATE ISSUED JUL 6 1954

FORM 50132-10 PRINTED IN U.S.A.

CANCELLED 7/6/54

FORMULA: (Continued)

Swing Mandrel Sizes
10" - 36"

M-440-1

	Fiber	Bags	Weight	Per Cent
X	Blue "A" or "S"**	-	300#	30.2%
	Vimy H4T	1-1/3	167	16.8
	BC4T	1-1/3	167	16.8
	4Z20	2	200	20.1
	4X Munro	2	160	16.1
			994#	100.0%
	Reprocessed		100#	10.0%

PIPE AND BOARD DEPARTMENT JUN 8 1954 G. B. BROWN

Note: On -2 basis use 200# reprocessed.

M-459-1*

	Fiber	Bags	Weight	Per Cent
X	Blue "A" or "S"**	-	300#	20.0%
	Vimy H4T	2	250	16.6
	BC4T	2	250	16.6
	4Z20	3	300	20.0
	4X Munro	3	240	15.9
	C&G #3	-	83	5.4
	C&G #4	-	84	5.5
			1507#	100.0%
	Reprocessed		150#	10.0%

Note: * - M-459-1 Blend to be used as C&G grades become available.
** - To show NC-300 Blue as alternate for "A" or "S" Blue fiber.

MANUFACTURING INSTRUCTIONS:

1. Charge batch materials into skip hoist in the most convenient manner and order. Mix in top mixer for a minimum of five minutes.
2. Feed fiber mixture into willow at the rate of approximately 300# to 4500# per hour.
3. Submit composite of fiber blend for all shifts to Quality Control for buoyancy test.

RETURN TO J-M RESEARCH FILE ROOM

X—INDICATES CHANGE — REASON: To show adoption of NC-300 Blue as alternate for "A" or "S" Blue.

AUTHORITY — FOR CHANGE: Letter of C. LeGattuta to H.J. O'Brien dated 5/18/54.

FILE-HOLDERS	IND. ENGR.	P. & S.	WAUKEGAN CONTROL LAB.	SUPT. QUAL. CONTROL	PROD. SUPT.	PLANT FINANCE OFFICE	ENGINEER	MGR. QUAL. CONTROL	DIR. QUAL. CONTROL

SUPERSEDES: Page #2 of same specification issued 1/15/54.

DATE ISSUED JUN 4 1954

FORMULA: (Cont'd.)

Swing Mandrel Sizes
10" - 36"

M-440-1

Fiber	Bags	Weight	Per Cent
Blue "A" or "S"	-	300#	30.2%
Vimy H4T	1-1/3	167	16.8
BC4T	1-1/3	167	16.8
4Z20	2	200	20.1
4X Munro	2	160	16.1
		994#	100.0%
Reprocessed		100#	110.0%

Note: On -2 basis use 200# reprocessed.

CANCELLED BY 6/4/54

M-459-1*

Fiber	Bags	Weight	Per Cent
Blue "A" or "S"	-	300#	20.0%
Vimy H4T	2	250	16.6
BC4T	2	250	16.6
4Z20	3	300	20.0
4X Munro	3	240	15.9
C&O #3	-	83	5.4
C&O #4	-	84	5.5
		1507#	100.0%
Reprocessed		150#	10.0%

Note: *M-459-1 blend to be used as C&O grades become available.

MANUFACTURING INSTRUCTIONS:

1. Charge batch materials into skip hoist in the most convenient manner and order. Mix in top mixer for a minimum of five minutes.
2. Feed fiber mixture into willow at the rate of approximately 300# to 450# per hour.
3. Submit composite of fiber blend for all shifts to Quality Control for buoyancy test.

X—INDICATES CHANGE — REASON: To show use of "A" or "S" Blue in M-440-1 and approval of M-459-1 as standard blend when C&O fibers are available.

AUTHORITY FOR CHANGE: Letter of P.D. Cannon to E.J. O'Brien dated 12/22/53.

FILE-HOLDERS	CONTROL LAB.	P. & S.	IND. ENGR.	WKG.	SUPR. QUAL. CONTROL	PROD. SUPT.	PLANT FINANCE OFFICE	RESEARCH LAB.	MGR. QUAL. CONTROL	DIR. QUAL. CONTROL

SUPERSEDES: Page 2 of same specification issued 4/24/53.

DATE ISSUED JAN 15 1954

MANUFACTURING SPECIFICATIONS
TRANSITE PIPE

MANVILLE PLANT

DEPT.

PRODUCT: Transite Pipe Asbestos Fibre Blends.

DIVISION IP

SPEC. NO. TP-1

PAGE NO. #2

Formula: (Cont'd.)

Tube Mandrel
Sizes 3" - 8"

M-360-1

Fibre	Bags	Wt.	%
Blue MS	1-1/2	150#	10.0%
X H4T	1-2/3	209	14.0
BC4T	1-2/3	209	14.0
4M28	4	400	26.8
4Z	3/4	75	6.0
XX Munro 4X	9	450*	30.2
		1,493#	100.0%
Scrap		149#	10.0%

*Note: Based on 80# bags, weight would be 440# (5-1/2 bags)

Swing Mandrel Sizes
10" - 20"

M-372-1

Fibre	Bags	Wt.	%
MS Blue	2	200#	15.7%
A Blue	1	88	6.9
Vimy H4T	1-1/4	156	12.2
BC4T	1-1/4	156	12.2
4Z	1-1/4	125	9.8
4X Munro	6	300 **	23.6
4M28	2-1/2	250	19.6
		1,275#	100.0%
Scrap		128#	10.0%

** Note: Based on 80# bags, weight would be 320# (4 bags)

Notes:
1. 6D20 Fibre may be substituted when necessary for "reprocessed".
2. Batch size may be varied provided batch proportions are maintained.

CANCELLED 4/16/53

PIPE AND BOARD DEPARTMENT DEC 10 1952 E. B. BROWN

DEC 8 1952 E. F. WILLIAMS

XX RETURN TO J-M RESEARCH

X - To correct weights of H4T and BC4T Fibres.
XX - To show formula using 50 & 80# bags of 4X Munro Fibre.

X — INDICATES CHANGE — REASON: Spec. issued 10/16/52 not approved by DHQ. See letter of E.S. Bogart to J.R. Robson dated 10/22/52.

AUTHORITY FOR CHANGE XX - Recommendation of Bldg. Supt.

Ind.Engr. Mfg.

FILE-HOLDERS

SUPR. QUAL. CONTROL | PROD. SUPT. | PLANT FINANCE OFFICE | RESEARCH | MGR. QUAL. CONTROL | DIR. QUAL. CONTROL

Page #2 of same specification issued 10/16/52.

DEC 5 1952

SUPERSEDES:

DATE ISSUED

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NTED IN U.S.A.

MANUFACTURING SPECIFICATIONS

TRANSITE PIPE DEPT.

MANVILLE PLANT

PRODUCT: Transite Pipe Asbestos Fibre Blends

DIVISION IP

SPEC. NO. TP-1

PAGE NO. 2

425

CANCELLED 12/5/52 not approved see over

Formula: (Cont'd.)

Tube Mandrel
Sizes 3" - 8"

M-360-1

Fibre	Bags	Wt.	%
Blue MS	1-1/2	150#	9.9%
H4T	2-1/2	250	16.5
BC4T	1-1/2	188	12.4
4M	4	400	26.5
4Z	3/4	75	5.0
Munro 4X	9	450	29.7
		1,513#	100.0%
Scrap		150#	10.0%

PIPE AND BOARD DEPARTMENT OCT 22 1952 G. B. BROWN

Swing Mandrel Sizes
10" - 20"

M-372-1

Fibre	Bags	Wt.	%
MS Blue	2	200#	15.7%
A Blue	1	88	6.9
Vimy H4T	1-1/4	156	12.2
BC4T	1-1/4	156	12.2
4Z20	1-1/4	125	9.8
4X Munro	6	300	23.6
4M28	2-1/2	250	19.6
		1,275#	100.0%
Scrap		128#	10.0%

Notes:

(1) 4M12 can be used as a direct substitute for 4M28.

(2) 6D20 Fibre may be substituted when necessary for "reprocessed".

(3) Batch size may be varied provided batch proportions are maintained.

RETURN TO J-M RESEARCH FILE ROOM

RECEIVED OCT 20 1952 E. R. WILLIAMS

X— INDICATES CHANGE — REASON: To show larger batch size.

AUTHORITY — FOR CHANGE: Recommendation of Building Superintendent.

FILE-HOLDERS			IND.ENG.	MKG.	SUPR. QUAL. CONTROL	PROD. SUPT.	PLANT FINANCE OFFICE		MGR. QUAL. CONTROL	DIR. QUAL. CONTROL

SUPERSEDES: Page #2 of same specification issued 1/25/52.

DATE ISSUED OCT 16 1952

RM 80132-10 INTED IN U.S.A.

MANUFACTURING SPECIFICATIONS

MANVILLE DEPT.

TRANSITE PIPE PLANT

PRODUCT: Transite Pipe Asbestos Fibre Blends.

DIVISION IP

SPEC. NO. TP-1

PAGE NO. 2

425

CANCELLED 10/16/52

PAPER PIPE BOARD RESEARCH JAN 29 1952

Formula: (Cont'd.)

Tube Mandrel Sizes 3" - 8"

M-360-1

Fibre	Bags	Wt.	%
Blue MS	1-1/4	125#	10.2%
H4T	1-1/2	188	15.3
BC4T	1-1/2	188	15.3
4M	3	300	24.5
4Z	3/4	75	6.1
Munro 4X	7	350	29.6
		1,226#	100.0%
Scrap		123#	10.0%

X

Swing Mandrel Sizes 10" - 20"

M-372-1

Fibre	Bags	Wt.	%
MS Blue	2	200	15.7
A Blue	1	88	6.9
Vimy H4T	1-1/4	156	12.2
BC4T	1-1/4	156	12.2
4Z20	1-1/4	125	9.8
4X Munro	6	300	23.6
4M28	2-1/2	250	19.6
		1,275#	100.0%
Scrap		128#	10.0%

NOTES: (1) 4M12 can be used as a direct substitute for 4M28.

(2) 6D20 Fibre may be substituted when necessary for "reprocessed".

(3) Batch size may be varied provided batch proportions are maintained.

RETURN TO J-M RESEARCH

RECEIVED JAN 28 1952

X— INDICATES CHANGE — REASON: To show larger batch size.

AUTHORITY — FOR CHANGE: Correction.

FILE-HOLDERS	Ind.	Engr.	Wkg.		SUPR. QUAL. CONTROL	PROD. SUPT.	PLANT FINANCE OFFICE	RESEARCH LAB.	MGR. QUAL. CONTROL	DIR. QUAL. CONTROL

SUPERSEDES: Page #2 of same specification issued 12/18/51.

DATE ISSUED JAN 25 1952

FORM 50132-10 PRINTED IN U.S.A.

MANUFACTURING SPECIFICATIONS

MANVILLE PLANT

TRANSITE PIPE DEPT.

PRODUCT: Transite Pipe Asbestos Fibre Blends.

DIVISION IP

SPEC. NO. TP-1

PAGE NO. #2

Fibre	M-321-1 Bags	M-321-1 Weight	M-321-1 %	M-160-1 Bags	M-160-1 Weight	M-160-1 %	M-335-1 Bags	M-335-1 Weight	M-335-1 %
"S" Blue	1-1/2	150#	14.3%	2	200#	16.8%	1	100#	7.4%
"A" Blue	1	88	8.4	1	88	7.4	1	88	6.5
C&G #3	-	-	-	1-1/2	188	15.8	1/2	63	4.7
C&G #4	-	-	-	1/2	63	5.3	-	-	-
Vimy Hi-T	1-1/2	188	17.9	2	250	21.05	1-1/2	188	13.9
Vimy BC4T	1	125	11.9	2	250	21.05	1-1/2	188	13.9
4X Kunro	5	250	23.75	-	-	-	5-1/2	275	20.3
Danville 4M28	2-1/2	250	23.75	1-1/2	150	12.6	4-1/2	450	33.3
		1,051#	100.00%		1,189#	100.00%		1,352#	100.0%
Reprocessed		105	10.0%		138	11.6%		135	10.0%
		1,156#			1,327#			1,487#	

CANCELLED 5/10/51

Notes:

(1) 6020 Fibre may be substituted when necessary for "reprocessed".

(2) M-321-2 and M-335-2 may be used in place of M-321-1 and M-335-1 respectively.

(3) In M-342-1 Blend 165# furnish batch may be used for 3" and 4" pipe where it is believed strength and recovery are not adversely affected.

(4) Batch size may be varied provided batch proportions are maintained.

RECEIVED APR 17 1951 E. R. WILLIAMS

RETURN TO J-M RESEARCH

X—INDICATES CHANGE—REASON: Added information.

AUTHORITY FOR CHANGE — Letter of P.D. Cannon to H.J. O'Brien, dated 3/19/51.

FILE-HOLDERS	Ind.	Eng.	Mkg.		SUPR. QUAL. CONTROL	PROD. SUPT.	PLANT FINANCE OFFICE	MAINTENANCE SUPT.	MGR. QUAL. CONTROL	DIR. QUAL. CONTROL

SUPERSEDES:

DATE ISSUED APR 17 1951

50132-10 ED IN U. S. A.

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	DRC P-386

SIGNIFICANT

NOTES

A Blue Specs