

5-19-70
~~DISCONTINUED~~

CONFIDENTIAL COMMUNICATION
 SUBJECT TO ATTORNEY-CLIENT PRIVILEGE

Made on FBPM#6

Material
 Asbestos Felt (9.5#/100 sq. ft.)
 #13 Asphalt (45.8%)
 Wt./roll
 Finishing Materials
 Shipping weight

432 sq. ft. Roll
 Net Gross
 41.0# 43.6#
 18.8 19.6
 59.8# 63.2#
 0.2
 60.0# std.
 57.0# min.

PLAINTIFF'S EXHIBIT

BIR-502

Run Speed Std.: 68 rolls/hr.
 Dept. Change & Down Factor: 6.5%

Finishing Materials:
 Printed Wrapper - 0.2#
 Underwriters' label Type 15 Felt
 printed on wrapper

Guide Lines as follows:
 8 1/2" from edge of sheet
 11 1/4" " " " "
 17 " " " " "
 19 " " " " "
 24 3/4" " " " "
 27 1/2" " " " "
 2 " " " " "

Min. % Saturation: 40%

NOTE: Up to 3% of rolls may have 2 pieces, no piece under 12 ft. long.

Supersedes issue 3/30/62

Issued 1/1/66

Rev. 1-1-67
 7-18-67
 1-1-67

1-1-66
~~SUPERS~~ #15 PERFORATED ASPHALT SATURATED ASBESTOS FELT

Dept. FB

Made on FBPM#6

Material
 Asbestos Felt (9.5#/100sq.ft)
 #13 Asphalt (45.8%)
 Net Weight/Roll
 Finishing Materials
 Shipping Weight

324 sq. ft. Roll		432 sq. ft. Roll	
Net	Gross	Net	Gross
30.8#	32.6#	41.0#	43.6#
14.1	14.7	18.8	19.6
44.9#		59.8#	63.2#
.1		.2	
45.0# std.		60.0# std.	
42.0# min.		57.0# min.	
48.0# max.		63.0# max.	

Guide Lines as follows:

8 1/2" from edge of sheet
 11 1/4" " " " "
 17 " " " " "
 19 " " " " "
 24 3/4" " " " "
 27 1/2" " " " "

Min. % Saturation - 40%

Production/roll: 68 rolls/hr
 324 sq. ft. rolls - 85 rolls
 432 sq. ft. rolls - 70 rolls
 DEPT. CHANGE & DOWN FACTOR: 6.5%
~~Finishing Materials (324 sq. ft. roll)~~
~~1/2" Printed Gum Tape~~ 0.2#
~~Underwriters' label Type 15 Felt~~
~~(included on printed tape)~~
 Finishing Materials (432 sq. ft. roll)
 Printed Wrapper 0.2#
 Underwriters' label Type 15 Felt
 printed on wrapper

Up to 3% of rolls may have 2 pieces, no piece under 12' long.

Supersedes issue 8/30/61

Issued 3/30/62

Rev. 1-17-63 7-29-64

SUPERSEDED

3-30-62

Dept. FB

#15 PERFORATED ASPHALT SATURATED ASBESTOS FELT

63

Made on FBPM#6

Material/324 sq. ft.

Asbestos Felt (9.5#/100 sq. ft.)

#13 Asphalt

Net Weight

Finishing Materials

Shipping Weight

<u>Net</u>	<u>Gross</u>
30.8#	32.6#
14.1	14.7
44.9#	
.1	
45.0#	Std.
42.0#	Min.
48.0#	Max.

Guide Lines as follows:

8 1/2" from edge of sheet

11 " " " " "

17 " " " " "

19 " " " " "

25 " " " " "

27 1/2 " " " " "

Production/hour: 85 rolls

Finishing Materials

Printed wrapper 6" x 36" .04#

National Starch Case Sealing #214 .03#

Underwriters' Label Type 15 Felt (included on printed Tape)

Minimum Per Cent Saturation: 40%

Up to 3% of rolls may have 2 pieces, no piece under 12' long.

Issued 8/30/61

12-14-61

NORWOOD

PRODUCT CODE 22-50-162

PRODUCT NAME

PRODUCT NAME #45 ASBESTOS BASE SHEET
(1½ SQUARE)

SUPERSEDES: 11/6/70

DESCRIPTION:

Coating ribbed both sides, evenly distributed front and back. Surfaced on face with #36 Talc. Talc (Fine Grading) Slurry on back. Laying lines 2", 17", 19", and 34" in from each edge.

RAW MATERIALS

CODE.	DESCRIPTION
1	...
2	...
3	...
4	...
5	...
6	...
7	...
8	...
9	...
10	...
11	...
12	...
13	...
14	...
15	...
16	...
17	...
18	...
19	...
20	...
21	...
22	...
23	...
24	...
25	...
26	...
27	...
28	...
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31	...
32	...
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36	...
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42	...
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68	...
69	...
70	...
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72	...
73	...
74	...
75	...
76	...
77	...
78	...
79	...
80	...
81	...
82	...
83	...
84	...
85	...
86	...
87	...
88	...
89	...
90	...
91	...
92	...
93	...
94	...
95	...
96	...
97	...
98	...
99	...
100	...

Materials Per 162 sq. ft.

[illegible]

Felt Asbestos 10x36

#9.6	#4.91
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Saturation 50%

47

Coating Asphalt

12.5

Filler 50%

12.5

Surfacing #36 Talo

2.1

Backfill - Talc (Fine Grading) Slurry

0.2

.....

Abstract

Weight per 162 sq. ft.

49. Lit

Finishing Materials

753

Shipping Weight

Ref. 29

FINISHING MATERIALS:

Printed wrapper -
Resin Emulsion Adhesive- .007#
Underwriters' Label - Type 15 B.U.
Orange Laying Line - 1#/1,400 Rolls

RCD Operating Speed

250

300 rolls/hr.

Production Crew Size

Unit

Rolls

COLORS:

11-6-70
SUPERSEDED

#45 ASBESTOS BASE SHEET

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Made on FBPM#9, coating ribbed both sides, ^{EVENLY DISTRIBUTED FRONT AND BACK} Surfacted on face and back with #36 Talc (soapstone) #42 Talc slurry on back. 36" wide, 54' long. Laying lines 2" and 34" in from each edge.

Materials/162 sq. ft.	Net	Gross	Net #/100 sq. ft.
Asbestos Felt (10 x 36)	15.5#	16.4#	9.6#
Saturant (50%)	7.6	7.9	4.7
Coating Asphalt	20.2	21.6	12.5
Filler (50%)	20.2	20.8	12.5
#36 Talc (soapstone) Talc	6.7	7.4	4.1
#42 Talc slurry	0.3	0.4	0.2
Weight/roll	67.2#	70.6#	41.5#
Finishing Materials	0.2		
Shipping Weight	67.4#		

RCD Production Rate: 350
250 rolls/hr.
Finishing Materials:

Printed wrapper - 35 3/4" x 36"
Fullers Adhesive #3586 - .007"
Underwriters' Label - Type 15 B.U.
TiO₂ Laying Line - 1.7#/500 rolls

Issued 2/6/70

4-7-73
SUPERSEDED

#45 ASBESTOS BASE SHEET

Dept. FB

Made on FBPM#9, coating ribbed both sides, evenly distributed front and back. Surfacted on face with #36 Talc. #42 Talc slurry on back. 36" wide, 54' long. Laying lines 2" and 34" in from each edge.

Materials/162 sq. ft.	Net	Gross	Net #/100 sq. ft.
Asbestos Felt (10 x 36)	15.5#	16.4#	9.6#
Saturant (50%)	7.6	7.8	4.7
Coating Asphalt	20.2	20.8	12.5
Filler (50%)	20.2	20.8	12.5
#36 Talc	3.4	3.7	2.1
#42 Talc Slurry	0.3	0.4	0.2
Weight/roll	67.2#	69.9#	41.6#
Finishing Materials	0.2		
Shipping Weight	67.4#		

RCD Production Rate: 300
350 rolls/hr.
Finishing Materials:

Printed wrapper - 35-3/4" x 36"
Fullers Adhesive #3586 - .007"
Underwriters' Label - Type 15 B.U.
TiO₂ Laying Line - 1.7#/500 rolls

Issued 11/6/70
Supersedes Issue 2/6/70

**CONFIDENTIAL COMMUNICATION
SUBJECT TO ATTORNEY —**

MACHINE # 2

PRODUCT NAME

**NO. 15 PERFORATED ASPHALT
SATURATED ASBESTOS FELT**

SUPERSEDES: 3/2/70

Made on FJPM-2. Four square roll, 36" wide and 144 ft. long. Laying lines 2", 8-1/2", 11-1/4", 17"; 19", 24-3/4", 27-1/2", and 34" from edge. Aluminum lines put on by our Asb. Felt Vendor.

WT./432 SQ. FT. ROLL	NET PER
NET WEIGHT	100 Sq. Feet
GROSS WEIGHT	

Materials Per 432 sq. ft.

29200	Felt - 10# x 36" Asb.	41.0#	43.5#	0.50%
15375	Saturation - #3533 Roll (45.8%)	18.8	19.6	4.35

Weight per sq. ft.	Finishing Materials
10	10
20	20
30	30
40	40
50	50
60	60
70	70
80	80
90	90
100	100
110	110
120	120
130	130
140	140
150	150
160	160
170	170
180	180
190	190
200	200
210	210
220	220
230	230
240	240
250	250
260	260
270	270
280	280
290	290
300	300
310	310
320	320
330	330
340	340
350	350
360	360
370	370
380	380
390	390
400	400
410	410
420	420
430	430
440	440
450	450
460	460
470	470
480	480
490	490
500	500
510	510
520	520
530	530
540	540
550	550
560	560
570	570
580	580
590	590
600	600
610	610
620	620
630	630
640	640
650	650
660	660
670	670
680	680
690	690
700	700
710	710
720	720
730	730
740	740
750	750
760	760
770	770
780	780
790	790
800	800
810	810
820	820
830	830
840	840
850	850
860	860
870	870
880	880
890	890
900	900
910	910
920	920
930	930
940	940
950	950
960	960
970	970
980	980
990	990
1000	1000

Shipping Weight	Std.
"	"
"	Min.

FINISHING MATERIALS/ROLL:

Resin Emulsion Adhesive .005#/roll. Each roll Dated Coded.
U/L Type 15 B.U. Label applied to wrapper. (R-1177-P)
U/L Min. Saturation ~ 40%
" " Dry Unsat. Wt. 8.5# 100 Sq. Ft.
Up to 3% of rolls may have 2 pieces.
No piece under 12 ft. long. All spliced rolls must have Ident. Sticker.
No. rolls per pallet 30 Wt. 1900#
Plain wrapper/blue printing 21" x 35 1/2".

Rolls Per Hour	Operating Speed	125 Rolls/Hour

9

Colors:

DISCONTINUED

FIRESCREEN SHINGLES

CONFIDENTIAL COMMUNICATION
DEPT. FK SUBJECT TO ATTORNEY
CLIENT PRIVILEGE

Made on FKPM #1, Cut on FKPM #2. Size 12" x 35 9/16". Top 5" of Shingle offset 7/16", giving overall length of 36". Square feet material per square 240.03 gross and net. Shingles per square 81, 4 bundles 20, 20, 20, 21 shingles. Overlay covers entire face of shingle. Bottom 6" of overlay embossed with random tab effect. Minimum of 12 dots of wind seal adhesive per shingle. Rubars anti-stick applied in 4" bands down the center of the back of each shingle.
NOTE: #9 Granules used on overlay, #11 intumescent granules on base.

COLORS: Firescreen Snow White, Firescreen Sable Black, Firescreen Red, Firescreen Green, Firescreen Brown and Firescreen Gray.

RAW MATERIALS (Base)

MATERIALS PER SQUARE

MATERIALS

55# x 48" Felt
#14 Asphalt (175%)
#18 Coating
Filler, FKW (37%)
Asbestos, Finnish (PTI) (12%)
Back Coat
Filler, FKW (37%)
Asbestos, Finnish (PTI) (12%)
#11 Granules (Intumescent)
Backing (Soapstone)
Wind Seal Adhesive
Rubars Solution (15%) 72% Solids

NET	GROSS
27.0 Lbs.	30.2 Lbs.
47.2 "	48.6 "
12.7 "	13.1 "
9.2 "	9.5 "
3.0 "	3.1 "
8.9 "	9.2 "
6.5 "	6.7 "
2.1 "	2.2 "
59.0 "	62.0 "
3.5 "	6.0 "
2.0 "	2.0 "
0.2 "	0.2 "

PER 100 SQ. FT.
11.3 Lbs.
19.8 "
5.3 "
3.8 "
1.2 "
3.7 "
2.7 "
0.9 "
24.6 "
1.5 "

181.3

74.8

DISCONTINUED

FIRESCREEN SHINGLES

DEPT. FK

Made of FKPM #1, Cut on FKPM #2. Size 12" x 35 9/16". Top 5" of Shingle offset 7/16", giving overall length of 36". Square feet material per square 240.03 gross and net. Shingles per square 81, 4 bundles 20, 20, 20, 21 shingles. Overlay covers entire face of shingle. Bottom 6" of overlay embossed with random tab effect. Minimum of 12 dots of wind seal adhesive per shingle. Rubars anti-stick applied in 4" bands down the center of the back of each shingle.
NOTE: #9 Granules used on overlay, #11 intumescent granules on base.

COLORS: Firescreen Snow White, Firescreen Sable Black, Firescreen Red, Firescreen Green, Firescreen Brown and Firescreen Gray.

RAW MATERIALS (base)

MATERIALS PER SQUARE

MATERIALS
PER 100 SQ. FT.

55# x 48" Felt
#14 Saturant (175%)
#18 Coating
Filler, FKW (43%)
Asbestos, 7T-15 (6%)
#11 Granules (intumescent)
Backing (soapstone)
Wind Seal Adhesive
Anti-Stick (Rubars or Bird Flake)

NET	GROSS
27.0 Lbs.	30.2 Lbs.
47.2 "	48.6 "
21.6 "	22.2 "
18.3 "	18.3 "
2.5 "	2.6 "
59.0 "	62.0 "
3.5 "	6.0 "
2.0 "	2.0 "
0.2 "	0.2 "

181.3 Lbs.

195.1 Lbs.

74.8 Lbs.

40 F
PBN

CONFIDENTIAL COMMUNICATION^{FB}

RAW MATERIALS (Overlay)
BBM 240.0 Sq. Ft.

MATERIALS PER SQUARE

MATERIALS PER
100 Sq. Ft. CLIENT PRIVILEGE

(m) #18 Coating
Filler, FKW (37%)
BX Asbestos, Firmish (PTI) 12%
#9 Gramules

NET	GROSS
31.0	32.5
22.5	23.2
7.3	7.5
81.7	87.5

12.9
9.4
3.0
34.1
134.2

Net Weight
Finishing Materials

323.8
1.3

Shipping Weight

325.0 Lbs.
325.7

FINISHING MATERIALS:

90# Kraft Wrap, Glued top flap and ends, printed in red and black.
Wrapper Wt. - 1.2 Lb./Sq.
Adhesive - Top Flap, #14 Asphalt, 0.02 Lbs./Sq.
Ends, H.B. Fuller Co.
#3950 Glue, 0.013 Lb./Sq.

UNDERWRITERS CLASS A WIND RESISTANT
LABEL STAMPED ON EACH BUNDLE

Weight Per Bundle of 20 Shingles:

MIN.	STD.	MAX.
78.2 Lb.	80.2 Lb.	82.2 Lb.

PRODUCTION PER HOUR 250 SQUARES.

NEW SPECIFICATION

ISSUED 10/27/65

Rw. 7-12-71

Bm G A

PBN

BBM

BX

(m)

RAW MATERIALS (overlay)

240.0 Sq. Ft.

MATERIALS PER SQUARE

NET GROSS

MATERIALS PER
100 Sq. Ft.

#18 Coating
Filler, FKW (43%)
Asbestos, 7T-15 (6%)
#9 Gramules
Net Weight
Finishing Materials
Shipping Weight

31.0 Lbs.	31.9 Lbs.
26.1 "	27.4 " 26.9
3.7 "	3.9 " 3.4
81.7 "	85.5 " 87.9
323.8 Lbs.	349.8 Lbs. 345.1
1.3 1.2 "	349.8
325.0 Lbs.	
325.7	

12.9 Lbs.
10.9 "
1.5 "
34.1 "
134.2 Lbs.

FINISHING MATERIALS:

90# Kraft Wrap, Glued top flap and ends, printed in red and black.
Wrapper Wt. - 1.2 Lb./Sq.
Adhesive - Top Flap, #14 Asphalt, 0.02 Lbs./Sq.
Ends, H.B. Fuller Co.
#3950 Glue, 0.013 Lb./Sq.

UNDERWRITERS CLASS A WIND RESISTANT LABEL STAMPED ON EACH BUNDLE

Weight Per Bundle of 20 Shingles:

MIN.	STD.	MAX.
78.2 Lb.	80.2 Lb.	82.2 Lb.

PRODUCTION PER HOUR 250 SQUARES.

Supplements card
Issued 10-27-65

NOTE: This standard applies when 7T-15 Asbestos is used.

Issued 7-23-69

Rw. 7-12-71

CONFIDENTIAL COMMUNICATION
SUBJECT TO ATTORNEY --
CLIENT PRIVILEGE

PRODUCT SPECIFICATIONS

DIVISION NORWOOD 1-7-83 ISSUED DATE 4/9/73
 ROOFING MACHINE # 2 REV: _____
 PRODUCT CODE 22-50-216 PRODUCT NAME #45 ASBESTOS BASE SHEET (2 Square) SUPERSEDES: 11/7/70

DESCRIPTION: Coating ribbed both sides, evenly distributed front and back.
 Surfaced on face with #36 Talc. Talc (Fine Grading) Slurry on back, 36" wide, 72' long.
 Laying lines 2", 17", 19", and 34" on from each edge.

CODE	RAW MATERIALS DESCRIPTION	MATERIALS PER ROLL		NET PER 100 Sq. Ft.
		NET WEIGHT	GROSS WEIGHT	
Materials Per 216 sq. ft.				
29200	Felt Asbestos 10 x 36	20.6#	21.8#	9.6#
15375	Saturation 50%	10.2	10.5	4.7
14200	Coating Asphalt	27.0	27.8	12.5
56200	Filler 50%	27.0	27.8	12.5
59050	Surfacing #36 Talc	4.5	5.0	2.1
	Backing - Talc (Fine Grading) Slurry	0.4	0.5	0.2

Weight per 216 sq. ft.	89.7#	93.4#	41.6#
Finishing Materials	0.2		
Shipping Weight	89.9#		

FINISHING MATERIALS:
 Printed Wrapper
 Resin Emulsion Adhesive - .007#
 Underwriters' Label - Type 15 BU
 Orange Laying Line - 1#/1,000 Rolls

RCD Operating Speed 225 rolls/hr. Production Crew Size 15-1/2 Unit _____ Rolls _____
 COLORS: _____

CONFIDENTIAL COMMUNICATION
SUBJECT TO ATTORNEY —

PRODUCT SPECIFICATIONS

CLIENT PRIVILEGED DATE 4/10/73
REV:

ROOFING MACHINE # 9

DIVISION NORWOOD

PRODUCT CODE 22-05-108 PRODUCT NAME REINFORCED ASBESTOS FLASHING

SUPERSEDES: 7/3/72

DESCRIPTION: Using 13# (#452 Nicosat) glass scrim reinforced asbestos felt. The glass scrim to be on top side. Coating ribbed both sides, with two-thirds on the face and one-third on the back. Surfaced on face, with #36 Talc. Talc (Fine Grading) slurry on back. 36" wide, 36' long. No lines required.

CODE	RAW MATERIALS DESCRIPTION	MATERIALS PER ROLL		NET PER 100 Sq. Ft.
		NET WEIGHT	GROSS WEIGHT	

Materials Per 108 sq. ft.

13910	Felt 13# Asbestos (#452 Nicosat)	14.0#	14.8#	13.0#
15275	Saturation (50%)	7.0	7.2	6.5
14200	Coating Asphalt	13.2	13.6	12.2
50200	Filler (50%)	13.2	13.6	12.2
59050	Surfacing #36 Talc	2.3	2.5	2.1
	Backing - Talc (Fine Grading) Slurry	0.2	0.2	0.2

Weight per 108 sq. ft.

Finishing Materials	49.9#	51.9#	46.2#
	0.2		

Shipping Weight

	50.1#		
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FINISHING MATERIALS: Printed wrapper
Resin Emulsion Adhesive - .007#.

RCD Operating Speed 325 rolls/hr. Production Crew Size 15-1/2 Unit Rolls

CC-ORS:

CONFIDENTIAL COMMUNICATION
SUBJECT TO ATTORNEY —
CLIENT PRIVILEGE

SUPERSEDED

Reinforced Asbestos Flashing

Made on FBPM #9 using 13# (#452 Nicosat) glass scrim reinforced asbestos felt. The glass scrim to be on top side. Coating ribbed both sides, with two-thirds on the face and one-third on the back. Surfaced on face with #36 Talc. #42 Talc slurry on back. 36" wide, 36' long. No lines required.

<u>Materials/ 108 Sq. Ft.</u>	<u>Net</u>	<u>Gross</u>	<u>Net #/ 100 Sq. Ft.</u>
13# Asbestos Felt			
(#452 Nicosat)	14.0#	14.8#	13.0#
Saturant (50%)	7.0	7.2	6.5
Coating Asphalt	13.2	13.6	12.2
Filler (50%)	13.2	13.6	12.2
#36 Talc	2.3	2.5	2.1
#42 Talc Slurry	0.2	0.2	0.2
Weight/Roll	49.9#	51.9#	46.2#
Finishing Matls.	0.2		
Shipping Weight	50.1#		

RCD Production Rate: 325 rolls/hr.

Finishing Materials:

Printed Wrapper

Fullers Adhesive #3586 - .007#

ISSUED 7/3/72