PLAINTIFF'S EXHIBIT

BIR-256

Date Marks : 1982 thru 1991 1982 Set 80 - 6½' from widest part

1982 1½" Vertical above 5" Cutout

1983 2

1984 2½

1985 3

1986 3½

1987 4 , 5¼" actual

1988 4½

1989 5

1990 5½

1991 6

PLAIN & PERFORATED

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA.

MACHINE #13 7#13

ISSUED DATE 4/24/73

REV: 9-4-84 9-30-81

PRODUCT CODE 07-10-432

PRODUCT NAME TYPE 15 PERFORATED ASPHALT FELT - 432 SQ. FT. PER ROLL

SUPERSEDES: ~~1/1/66~~ 4-24-73

DESCRIPTION: Material Run on FSPM-#13

CODE	RAW MATERIAL DESCRIPTION	MATERIALS PER ROLL NET WEIGHT	GROSS WEIGHT	NET PER 100 Sq. Feet
	Materials Per 432 sq. ft.			
28250	Felt - 27 Lb. x 36"	24.3	27.2	5.6
15375	Saturation - #11 Flux - ~~346~~ #25	~~35.6~~ 30.2	36.7 36.1	8.2 7.0
	Weight per 432 sq. ft.	~~59.9~~ 54.5		
	Finishing Materials	1		
	Shipping Weight	52	60.0 ~~59.6~~	
	Variation in Shipping Wt. - Min. ~~-56.0#~~ Max. ~~-64.0#~~ 56			
	Guide Lines - 2", 8-1/2", 11-1/4", 17", 19", 24-3/4", 27-1/2", 34" from each edge.			
	To be aluminum lines and applied onto dry felt on DSPM-1. FOR ROLL 2			
	Length of Rolls - 144'-0". No extra allowance on two piece rolls. All two piece rolls must bear label stating that roll is two piece.			

FINISHING MATERIALS: 1 pc. 6" x ~~38~~ 36" Kraft strip with blue printing.

.03#

H.B. FULLER N.L. 3885 Code 10700

~~Wt. of sheet per 100 Sq. Ft. 13.0# Min.~~ 12.0

NOTE: This felt the same as Type 15 Asphalt Felt except it has perforations on 1" centers.

RCD Operating Speed ~~290~~ 275 Rolls/Hour Production Crew Size 6 1/2 Unit: ROLL

Color

BIRD 005739

(1987) D 249-31
Pg 164

120 TOOTH GREAR

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA.

ROOFING MACHINE #

ISSUED DATE 4/25/73
REV:

PRODUCT CODE 02 10 000

PRODUCT NAME 90# MINERAL SURFACED ROOFING
32" or 36" - 108 SQ. FT.

SUPERSEDES: 1/1/71

DESCRIPTION:

CODE	RAW MATERIALS PER SQ. DESCRIPTION	MATERIALS PER ROLL NET WEIGHT	MATERIALS PER ROLL GROSS WEIGHT	NET PER 100 Sq. Ft.
	Materials Per sq. ft.			
28500	Felt - 50# x 36" or 32"	11.3	12.6	10.5
15400	Saturation - #14-1/2 - 160%	18.1	18.6	16.8
14200	Coating - #21-1/2	11.2	11.5	10.4
56200	Filler - 53%	12.6	13.0	11.7
56150	Surfacing - #11 Oiled	33.8	36.2	31.3
59050	Backing - Pioneer Talc	1.0	1.7	0.9
				81.6
	Weight per sq. ft.	88.0		
	Finishing Materials - Wrapper	.1		
	Shipping Weight	88.1		

All rolls to be shipped without fixtures in rolls.
1 Underwriters' Label - Class C Sheet Roofing printed on wrapper.
1 Printed Wrapper, each roll. Color coded Green and Black.
Direction sheet printed on wrapper.

FIXTURES: Packed separately.
Packed in units of 20. 20 bags of nails, 20 pints of lap cement. Approx. Shipping Wt. - 32#
Lenth of Rolls - 36'0". (No extra allowance for two piece rolls). Wt. of Sheet per 100 Sq. Ft.-81.5#
Minimum Wt. of Roll - 86.0#

NOTE: Sheet must have minimum 3.0# filled coating/100 Sq. Ft. on back.

RCD Operating Speed 740 Rolls/Hour Production Crew Size 12 Bit Roll

Colonial Green, Black, ~~Brite Red, Meadow~~ 1 ~~Grey, Snow~~ White, Wood Blende, Brown Blende

BIRD 005559

120 TOOTH GREAR

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA.

ROOFING MACHINE #

ISSUED DATE 4/25/73
REV: 1-3-77

PRODUCT CODE 98 20 090

PRODUCT NAME 9" MINERAL SURFACE STRIPS - SAME AS 90#

SUPERSEDES: 1/1/71

DESCRIPTION: Cut on machine from 36" width material. Sq. Ft. Material per Sq.-108.
" " " per Roll - 27.

CODE	RAW MATERIALS PER SQ. DESCRIPTION	MATERIALS PER ROLL NET WEIGHT	MATERIALS PER ROLL GROSS WEIGHT	NET PER 100 Sq. Ft.
	Materials Per sq. ft.			
28500	Felt - 50 Lb. x 35-7/8"	11.3	12.6	10.5
15400	Saturation - #14-1/2 - 160%	18.1	18.6	16.8
14200	Coating - #21-1/2	11.2	11.5	10.4
56200	Filler - 53%	12.6	13.0	11.7
56150	Surfacing - #11 Oiled	33.8	36.2	31.3
59050	Backing - Talc Pioneer 36	1.0	1.7	0.9
	Weight per sq. ft.	88.0		
	Finishing Materials	[illegible]		
	Shipping Weight	88.1		

Length of rolls - 36'0" Width of rolls - 9"
36", Sheet slit into 4 pieces 9" wide.
Each roll wrapped with 3" gummed strip - 0.1# per sq.
Rolls must have minimum of 3.0# backing per 100 Sq. Ft.
Wt. of sheet per 100 Sq. Ft. - 81.5#
Date of manufacture and color in each roll.
No Direction Sheet. No Underwriters' Label.

RCD Operating Speed ~~820~~ 812 Rolls/Hour 1-3-77 [illegible] Production Crew Size _____ Unit _____

RS: _____

BIRD 005560

120 TOOTH 3 REAR

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA. ROOFING MACHINE #

ISSUED DATE 4/25/73
REV:

PRODUCT CODE 98 20 120 PRODUCT NAME 12" MINERAL SURFACED STRIPS-SAME AS 90#

SUPERSEDES: 1/1/71

DESCRIPTION: Cut on machine from 36" width material. Sq. Ft. Material per Sq. - 108
per Roll - 36

CODE	RAW MATERIALS PER SQ. DESCRIPTION	MATERIALS PER ROLL NET WEIGHT	GROSS WEIGHT	NET PER 100 Sq. Ft.
	Materials Per sq. ft.			
28500	Felt - 50 Lb. x 35-7/8"	11.3	12.6	10.5
15400	Saturation - #14-1/2 - 160%	18.1	18.6	16.8
14200	Coating - #21-1/2	11.2	11.5	10.4
56200	Filler - 53%	12.6	13.0	11.7
56150	Surfacing - #11 Oiled	33.8	36.2	31.3
59050	Backing - Talc Pioneer 36	1.0	1.7	0.9
	Weight per sq. ft.	88.0		
	Finishing Materials	1		
	Shipping Weight	88.1		

Length of Rolls - 36'0" Width of Rolls - 12"
36" Sheet slit into 3 pieces 12" wide. Each roll wrapped with 3" gummed strip-0.1# per sq.
Rolls must have minimum of 3.0# back coating per 100 Sq. Ft.
Wt. of sheet per 100 Sq. Ft. - 81.5#. Date of Manufacture and color in each roll.
No Direction Sheet. No Underwriters' Label.

FCD Operating Speed 780 Rolls/Hour Production Crew Size 12 Unit ROLL

RS:

BIRD 005561

120 TOOTH GEAR

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA.

ROOFING MACHINE #

ISSUED DATE 4/25/73
REV:

PRODUCT CODE 98 20 180

PRODUCT NAME 18" MINERAL SURFACED STRIPS-COLOR SAME AS 90#

SUPERSEDES: 1/1/71

DESCRIPTION: Cut on machine from 36" width material. Sq. Ft. material per Sq. - 108
Per Roll - 54

CODE	RAW MATERIALS PER SQ. DESCRIPTION	MATERIALS PER ROLL NET WEIGHT	GROSS WEIGHT	NET PER 100 Sq. Ft.
	Materials Per sq. ft.			
28500	Felt - 50 Lb. x 35-7/8"	11.3	12.6	10.5
15400	Saturation - #14-1/2 - 160%	18.1	18.6	16.8
14200	Coating - #21-1/2	11.2	11.5	10.4
56200	Filler - 53%	12.6	13.0	11.7
56150	Surfacing - #11 Oiled	33.8	36.2	31.3
59050	Backing - Talc EMG 36	1.0	1.7	0.9
	Weight per sq. ft.	88.0		
	Finishing Materials	.1		
	Shipping Weight	88.1		

Length of Rolls - 36'0" Width of Rolls - 18"
36" Sheet slit in 2 pieces 18" wide. Each roll wrapped with 3" gummed paper - 0.1#/Sq.
Rolls must have minimum of 3.0# back coating per 100 Sq. Ft.
Wt. of Sheet per 100 Sq. Ft. - 81.5#. Date of Manufacture and Color each roll.
No Direction Sheet. No Underwriters' Label.

FCD Operating Speed 760 Rolls/Hour Production Crew Size 12 Unit ROLL

S:

BIRD 005562

SMOOTH SURFACE

BIRD 005563

BR 37 TOOTH GREAR

PRODUCT SPECIFICATIONS

ISSUED DATE 7/1/74
REV:

DIVISION SHREVEPORT, LA
ROOFING MACHINE #

PRODUCT CODE 01 04 222 PRODUCT NAME BIRD BONDED BASE SHEET
2 Sq. Material - 36" Wide

SUPERSEDES: 7/1/73

DESCRIPTION:
41.8# per 108 sq. ft. - 85.9# per 222 sq. ft.

CODE	RAW MATERIALS PER ROLL DESCRIPTION	MATERIALS PER ROLL NET WEIGHT	GROSS WEIGHT	NET PER 100 Sq. Ft.
	Materials Per sq. ft.			
28250	Felt - #27 ± 36"	12.4#	13.8#	5.6#
15400	Saturation - #14 (130)	18.6	19.2	8.4 2.4
34200	Coating - #21 1/2	19.6	20.2	8.8
56200	Filler - 50%	19.6	20.2	8.8
56200	Surfacing - Glenwood Fines	11.0	12.1	5.0
58030	Backing - Pioneer 96 Talc	4.7	5.2	2.1
	Weight per sq. ft.	85.9#		38.7#
	Finishing Materials	0.1		
	Shipping Weight	86.0#		

No Excess Glenwood Fines on Finished Sheet

FINISHING MATERIALS: Printed Wrapper - ~~35 1/2~~ 21" x ~~39~~ 38", color coded, black on orange.
Underwriters' label, Type 15, printed on wrapper. No fixtures.
White paint lines, 3", 11 1/4", 17", 19", 24 3/4", 33" from each edge.
Length of rolls - 74'0" No extra allowance for two piece rolls.
Two piece rolls to have a red flag at lap of two pieces.
Weight of sheet per 100 sq. ft. - 38.7#
Coating to be equally distributed front and back.

RCD Operating Speed 335 rolls/hr. Production Crew 8 - 12 Unit Roll

COLORS:

BIRD 005564

120 TOOTH GEAR

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA. ROOFING MACHINE #

ISSUED DATE 4/25/73
REV:

PRODUCT CODE 02 030 00 PRODUCT NAME NEPONSET CAP SHEET

SUPERSEDES: 1/1/71

DESCRIPTION: 1/2 Sq. rolls, 108 Sq. Ft. per Roll, 216 Sq. Ft. per Sq. ~~Coated and surfaced 21"~~, Saturated Felt 15". ~~Hot embossed to give~~ 17" exposed surfacing. ~~Embossed portion to be sanded~~. Coated and surfaced on back.

CODE	RAW MATERIALS PER ROLL DESCRIPTION	MATERIALS PER ROLL NET WEIGHT	MATERIALS PER ROLL GROSS WEIGHT	NET PER 100 Sq. Ft.
	Materials Per sq. ft.			
28500	Felt - 50# x 36"	11.3	12.6	10.5
15400	Saturation - #14-1/2 - 160%	18.1	18.6	16.8
14200	Coating - #21-1/2	5.0	5.2	7.4
56200	Filler - 53%	5.7	5.9	9.0
56150	Surfacing - #11 Oiled	15.7	16.8	24.9
59050	Backing - Talc Pioneer 36	1.0	1.1	.9
56200	Glenwood Fines (for 4" Embossing)	.6	.7	1.0
60700	White Paint		0.1	.5
	Weight per sq. ft.	57.4		
	Finishing Materials	.1		
	Shipping Weight	57.5		

Variation in Shipping Wt. - Max.-59.0#; Min.-56.0#
1 Underwriters' Label - Type 30 Built Up. Printed on Wrapper.
Length of Roll - 36'0". No extra allowance for two piece rolls.

FINISHING MATERIALS: 1 Printed Wrapper - 2 color, Red on White - 35-1/2 x 36"
Variation in width of selvage - + or -1/2".

NOTE: A white paint line 17" in from surfaced edge must be on each roll.
Wt. of Sheet per 100 Sq. Ft. - Coated and surfaced - 80.2#.

FCD Operating Speed 680 Rolls/Hour Production Crew Size 12 Unit Roll

COLORS: Black, ~~Colonial Green~~, WHITE ~~White~~ Brown

BIRD 005565

Glenwood - 11.828 #/gal
88.5 #/cu ft.

Glenwood Fines

1 cu ft. = 7.481 gal

11.52 #/gal - 86.2 #/cu ft.

~~297.95~~	~~282.50~~	294.03
176.33	176.33	176.33
121.62	106.17	117.70
12.16 #/gal.	10.62 #/gal.	11.77 #/gal.
91.0 #/cu ft.	79.4 #/cu ft.	88.1 #/cu ft.

1 cu. ft. = 7.481 gal.

GLENWOOD FINES 6/19/74

Filler - 68.70 #/cu ft.

BIRD 005566

120 TOOTH GREAR

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA.

ROOFING MACHINE #

ISSUED DATE 4/25/73

REV:

PRODUCT CODE SPECIAL

PRODUCT NAME OLD RELIABLE ROOFING - 55# - 108 SQ. FT. (GOV'T ORDER ONLY)

SUPERSEDES: 1/1/71

DESCRIPTION:

CODE	RAW MATERIALS PER SQ. DESCRIPTION	MATERIALS PER ROLL NET WEIGHT	MATERIALS PER ROLL GROSS WEIGHT	NET PER 100 Sq. Ft.
	Materials Per sq. ft.			
28500	Felt - 50# x 36"	11.3	12.6	10.5
15400	Saturation - #14-1/2 - 160%	18.1	18.6	16.8
14200	Coating - #21-1/2 - Smooth	9.0	9.3	8.3
56200	Filler - 53%	10.1	10.4	9.4
59050	Surfacing - Talc EMG 36	4.5	5.0	4.2
	Weight per sq. ft.	53.0		
	Finishing Materials - Wrapper	[illegible]		
	Shipping Weight	53.1		

Variation in Shipping Wt. - Min. - 51.0#. Max. - 54.0# No Underwriters' Label.

Directions printed on Wrapper. Printed Wrapper - 2 color.

Fixtures: Packed Separately.
1 Pt. Lap Cement in pt. or #2 cans. 1 bag 7/8" Galv. 11 Ga. Nails, 162 count.

NOTE: Fixtures packed in units of 20. 20 bags of nails, 20 pints of Lap Cement.
Approx. Shipping Wt. - 32#.

Length of Rolls: 36'0". No extra allowance for two piece rolls. Wt. of Sheet per 100 Sq. ft. - 48.6#.

RCD Operating Speed 640 Rolls/Hour Production Crew Size 12 Unit Roll

COLORS:

BIRD 005567

GLASS MINI SURF
ROLL RFQ.

BIRD 005568

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA. MACHINE # 10

ISSUED DATE 2/25/87
REV.

PRODUCT CODE PRODUCT NAME COLONIAL GREEN

Glass Mineral Surface Roll Roofing

SUPERSEDES:

CODE	%	KIND OF SLATE
	100	LR 37 Green

RCD Operating Speed Production Crew Size Unit

Colors:

BIRD 005569

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA. MACHINE # 10

ISSUED DATE 2/25/87

REV.

PRODUCT CODE PRODUCT NAME Weather Blend

Glass Mineral Surface Roll Roofing

SUPERSEDES:

CODE	%	KIND OF SLATE
	55	LR 71 GRAY
	35	LR 76 GRAY
	5	LR 68 BUFF
	5	LR 41 BROWN

RCD Operating Speed Production Crew Size Unit

Colors:

BIRD 005570

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA. MACHINE # 10

ISSUED DATE 2/25/87
REV.

PRODUCT CODE PRODUCT NAME White
Glass Mineral Surface Roll Roofing

SUPERSEDES:

CODE	%	KIND OF SLATE
	100	A-720 White

RCD Operating Speed Production Crew Size Unit

Colors:

BIRD 005571

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA. MACHINE # 10

ISSUED DATE 2/25/87

REV.

PRODUCT CODE PRODUCT NAME Wood Blend

Glass Mineral Surface Roll Roofing

SUPERSEDES:

CODE	%	KIND OF SLATE
	30	A-556 BUFF
	45	LR 68 BUFF
	25	LR 41 BROWN

RCD Operating Speed Production Crew Size Unit

Colors:

BIRD 005572

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA. MACHINE # 10

ISSUED DATE 2/25/87
REV.

PRODUCT CODE PRODUCT NAME BROWN BLEND

Glass Mineral Surface Roll Roofing

SUPERSEDES:

CODE	%	KIND OF SLATE
	50	LR 51 BLACK
	10	LR 46 TAN
	40	LR 41 BROWN

RCD Operating Speed Production Crew Size Unit

Colors:

BIRD 005573

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA. MACHINE # 10

ISSUED DATE 2/25/87
REV.

PRODUCT CODE PRODUCT NAME BLACK
Glass Mineral Surface Roll Roofing

SUPERSEDES:

CODE	%	KIND OF SLATE
	100	Glenwood

RCD Operating Speed Production Crew Size Unit

Colors:

BIRD 005574

100 TOOTH GREAR

D 224-81 Pg 222
Type II

PRODUCT SPECIFICATIONS

ISSUED DATE 3/9/76
REV:

DIVISION SHREVEPORT, LA.

PRODUCT CODE 01 01 036

PRODUCT NAME: NEPONSET PAROID ROOFING -65# - 108 Sq. Ft.
#36 Talc - EMG & Pioneer on Face and Back

SUPERSEDES: 4/25/73

DESCRIPTION:

CODE	RAW MATERIALS PER SQ. DESCRIPTION	MATERIALS PER ROLL NET WEIGHT	MATERIALS PER ROLL GROSS WEIGHT	NET PER 100 Sq. Ft.
	Materials Per sq. ft.			
28500	Felt - 50# x 36"	11.3	12.0	10.5
15400	Saturation - #14-1/2 - 160%	18.1	18.6	16.8
14200	Coating - #21-1/2 - Smooth	12.7	13.0	11.7
56200	Filler - 53%	14.3	14.7	13.2
59050	Surfacing #36 Talc (EMG & Pioneer)	6.6	7.4	6.1
	Weight per sq. ft.	63.0		
	Finishing Materials	.1		
	Shipping Weight	63.1		

Variation in Shipping Wt. - Min. 61.5#; Max. 64.5#
No Underwriters' Label. Printed Wrapper Color Coded - Black & Blue 21" x 33"
ASTM-D224-75 Type 2 Directions printed on wrapper. All rolls shipped without fixtures in rolls.

Fixtures: Packed separately. 1 Pt. Lap Cement, 1 bag Nails, 7/8" Galv., 11 Ga., 163 count.

NOTE: Fixtures packed in units of 20 bags of nails, 20 cans of Cement. Approx. Shipping Wt. - 32.0#
Length of Rolls - 36'0". No extra allowance for 2 piece rolls.
Wt. of sheet per 100 Sq. Ft. - 58.3#

RCD Operating Speed 630 Rolls/Hour Production Crew Size 12 Unit Roll

Colors:

BIRD 005575

PRODUCT SPECIFICATIONS

ISSUED DATE 12/3/74
REV:

DIVISION SHREVEPORT, LA. MACHINE #3 TYPE 15 ASPHALT

PRODUCT CODE: 07-01-324 PRODUCT NAME FELT - 324 SQ. FT. PER ROLL

SUPERSEDES

DESCRIPTION: Material Run on FSPM-3

CODE	RAW MATERIAL DESCRIPTION	MATERIALS PER ROLL NET WEIGHT	MATERIALS PER ROLL GROSS WEIGHT	NET PER 100 Sq. Feet
	Materials Per 324 sq. ft.			
28250	Felt - 27 Lb. x 36"	18.1	20.2	5.6
15375	Saturation - #11 Flux - 166#	26.4	27.2	8.2
	Weight per 324 sq. ft.	44.5		
	Finishing Materials	.1		
	Shipping Weight	44.6		

Variation in Shipping Wt. - Min. - 42.0# Max. - 47.0#
Guide Lines - 2", 8-1/2", 11-1/4", 17", 19", 24-3/4", 27-1/2", 34" from each edge
To be aluminum lines and applied onto dry felt on DSPM-1, #A
Length of Rolls - 108'-0". No extra allowance on two piece rolls. All two piece rolls must bear label stating that roll is two piece.

FINISHING MATERIALS: 1 pc. 6" x 38" Kraft strip, plain
- .03# H.B. FULLER No 3865 Code 10700

Wt. of sheet per 100 Sq. Ft. - 13.0# Min.

RCD Operating Speed 325 Rolls/Hour Production Crew Size 5 Unit ROLL

COLOR:

BIRD 005576

PRODUCT SPECIFICATIONS

ISSUED DATE 11/21/74
REV:

DIVISION SHREVEPORT, LA.
07-10-324

MACHINE #3

TYPE 15 PERFORATED ASPHALT

SUPERSENDES:

PRODUCT CODE

PRODUCT NAME: FELT - 324 SQ.FT. PER ROLL

DESCRIPTION: Material Run on FSPM-3.

CODE	RAW MATERIAL DESCRIPTION	MATERIALS PER ROLL NET WEIGHT	MATERIALS PER ROLL GROSS WEIGHT	NET PER 100 Sq. Feet
	Materials Per 324 sq. ft.			
28250	Felt - 27 LB. x 36"	18.1	20.2	5.6
15375	Saturation -#11 Flux - 146%	26.4	27.2	8.2
	Weight per 324 sq. ft.	44.5		
	Finishing Materials	.1		
	Shipping Weight	44.6		

Variation in Shipping Wt. - Min. - 42.0#. Max. - 47.0#
Guide Lines - 2", 8-1/2", 11 - 1/4", 17", 19", 24-3/4", 27-1/2", 34" from each edge.
To be aluminum lines and applied onto dry felt on DSPM-1.
Length of Rolls - 108' - 0". No extra allowance on two piece rolls. All two piece rolls must bear label stating that roll is two piece.

FINISHING MATERIALS: 1 Pc. 6" x 38" Kraft strip, PLAIN
Paste - .03# H.B. FULLER No 3885, code 10700

Wt. of sheet per 100 Sq. Ft. - 13.0# Min.

NOTE: This felt the same as Type 15 Asphalt Felt except it has perforations on 1" centers.

RCD Operating Speed 325 Rolls/Hour Product Crew Size 5 Unit ROLLS

Colors

BIRD 005577

PRODUCT SPECIFICATIONS

ISSUED DATE 11/20/74
REV:

SUPERSENDES:

DIVISION SHREVEPORT, LA.
9802180

MACHINE #3
18" - #15 ASPHALT

PRODUCT CODE

PRODUCT NAME: FELT - 216 SQ. FT. PER ROLL

DESCRIPTION: Material run on FSPM-3. Cut on FSPM-3 from 36" width material.

CODE	RAW MATERIAL PER 18" ROLL DESCRIPTION	MATERIALS PER ROLL NET WEIGHT	GROSS WEIGHT	NET PER 100 Sq. Feet
	Materials Per 216 sq. ft			
28325	Felt - #28 x 36" (Slit to 18" during winding)	12.2	13.6	5.6
15375	Saturation - #11 Flux - 146%	17.7	18.2	8.2
	Weight per 216 sq. ft./Per 18" Roll	29.9		
	Finishing Materials	.1		
	Shipping Weight	30.0		

Material to be run on regular aluminum lined dry felt from DSPM-1.
Length of Rolls - 144'0" Width of Roll - 18". No extra allowance on two piece rolls.
All two piece rolls must bear label stating that roll is two piece.

FINISHING MATERIALS: 1 Pc. 6" x 38" Kraft strip, PLAIN
Starch Paste - .03# H.B. Fuller 208S Code 1070

No Underwriters' Label.

RCD Operating Speed 250 Rolls/Hour Product Crew Size 5 Unit ROLLS

Colors

BIRD 005578

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA. MACHINE # 3

ISSUED DATE 4/24/73
REV.

PRODUCT CODE 07-01-216 PRODUCT NAME TYPE 15 ASPHALT FELT-216 SQ. FT./Roll

SUPERSEDES: 1/1/66

DESCRIPTION: Material run on FSPM-3

CODE	RAW MATERIAL DESCRIPTION	MATERIALS PER ROLL NET WEIGHT	GROSS WEIGHT	NET PER 100 Sq. Feet
	Materials per 216 sq. ft.			
28250	Felt - 27 lb. x 36"	12.2	13.6	5.6
15375	Saturation - #11 Flux - 146%	17.7	18.2	8.2
	Weight per 216 sq. ft.	29.9		
	Finishing Materials	.1		
	Shipping Weight	30.0		

Variation in Shipping Wt. - Min. - 28.0# Max. - 33.0#.
Guide Lines - 2", 8-1/2", 11-1/4", 17", 19", 24-3/4", 27-1/2", 34" from each edge. To be aluminum lines and applied onto dry felt on DSPM-1/
Length of Rolls - 72'0". No extra allowance for two piece rolls. All two piece rolls must bear label stating that roll is two piece.

FINISHING MATERIALS:

1 pc. 6" x 30" Kraft strip with brown printing.
- .03# H. B. FULLER 9885 Code 10700
Wt. of sheet per 100 Sq. Ft. - 13.0# Min.

RCD Operating Speed 460 Rolls/ Hour Production Crew Size 5 Unit Roll

Co( ):

BIRD 005579

PRODUCT SPECIFICATIONS

ISSUED DATE 4/24/73
REV:

DIVISION SHREVEPORT, LA.
MACHINE # 3
18" - #15 PERFORATED ASPHALT

PRODUCT CODE 07-10-216
PRODUCT NAME FELT - 216 SQ. FT. PER ROLL

SUPERSEDES: 1/1/66

DESCRIPTION: Material run on FSPM-3. Cut on FSPM-3 from 36" width material.

CODE	RAW MATERIAL PER 18" ROLL DESCRIPTION	MATERIALS PER ROLL NET WEIGHT	GROSS WEIGHT	NET PER 100 Sq. Feet
	Materials Per 216 sq. ft.			
28325	Felt - #28 x 36" (Slit to 18" during winding)	12.2	13.6	5.6
15375	Saturation - #11 Flux - 146%	17.7	18.2	8.2
	Weight per 216 sq. ft./Per 18" Roll	29.9		
	Finishing Materials	.1		
	Shipping Weight	30.0		

Material to be run on regular aluminum lined dry felt from DSPM-1.
Length of Rolls - 144'0" Width of Roll - 18". No extra allowance on two piece rolls.
All two piece rolls must bear label stating that roll is two piece.

FINISHING MATERIALS: 1 Pc. 6" x 38" Kraft strip with blue printing.
Starch Paste - .03# H.B. FULLER 3885 CODE 10700

No Underwriters' Label.

RCD Operating Speed 250 Rolls/Hour Production Crew Size 5 Unit ROLLS

Comments:

BIRD 005580

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA.

MACHINE #3

ISSUED DATE 4/24/73

REV:

PRODUCT CODE 98-04-180

PRODUCT NAME 18" - TYPE 30 ASPHALT FELT - 108 SQ. FT. PER ROLL

SUPERSEDES: 1/1/66

DESCRIPTION: Material run on FSPM-3. Material made from 36" wide felt and slit at winder to two 18" wide rolls.

CODE	RAW MATERIAL DESCRIPTION	MATERIALS PER ROLL NET WEIGHT	GROSS WEIGHT	NET PER 100 Sq. Feet
	Materials Per 108 sq. ft.			
28550	Felt - 52# x 36" (Slit into 18")	11.7	13.1	10.8
15378	Saturation - #11 Flux - 156%	18.2	18.7	16.9
	Weight per 108 sq. ft.	29.9		
	Finishing Materials	.1		
	Shipping Weight	30.0		

Length of Roll - 7210" Width of Roll - 18" No extra allowance for two piece rolls. All two piece rolls must bear label stating roll is two pieces. To be cut from regular 30# Asphalt Felt with regular guide lines.

FINISHING MATERIALS: 1 Pc. 6" x 36" Kraft Strip with green printing.
Starch Paste .03# H. B. Fuller 3885 Code 10700

No Underwriters' Label.
Wt. of sheet per 100 Sq. Ft. - 36.0# Min.

RCD Operating Speed 200 ~~400~~ Rolls/Hour Production Crew Size 5 Unit ROLLS

Color:

BIRD 005581

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA. MACHINE # 3

PRODUCT CODE 07-15-216 PRODUCT NAME TYPE 30 PERFORATED ASPHALT FELT - 216 SQ. FT. PER ROLL

ISSUED DATE 4/24/73
REV:
SUPERSEDES: 1/1/66

DESCRIPTION: Material run on FSPM-3.

CODE	RAW MATERIAL DESCRIPTION	MATERIALS PER ROLL NET WEIGHT	GROSS WEIGHT	NET PER 100 Sq. Feet
	Materials Per 216 sq. ft.			
28550	Felt - 52# x 36"	23.4	26.2	10.8
15375	Saturation - #11 Flux - 156%	36.5	37.6	16.9
	Weight per 216 sq. ft.	59.9		
	Finishing Materials	.1		
	Shipping Weight	60.0		

Variation in Shipping Wt. - Min.-56.0#. Max.-64.0#
Aluminum Guide Lines - 2", 17", 19", 34" from each side. Lines applied on Dry Felt DSPM-1.
Length of Rolls - 72'-0". All two piece rolls must bear label stating that roll is two piece.
No extra allowance on two piece rolls.

FINISHING MATERIALS: 1 pc. 6" x 38" Kraft strip with black printing.
Flux #3885 - .03# Code 10700
No Underwriters' Label.
Wt. of Sheet per 100 Sq. Ft. - 26.0# Min.

NOTE: This felt the same as Type 30 Asphalt Felt except it has perforations on 1" centers.

PCD Operating Speed 460 Rolls/Hour Production Crew Size 5 ROLL

Col(:

BIRD 005582

NEW - 10 - 83

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA.

ROOFING MACHINE #

ISSUED DATE ~~1/25/73~~

REV: 9-13-81

PRODUCT CODE ~~02-10-000~~ 02-15-000

PRODUCT NAME ~~90# MINERAL SURFACED ROOFING~~ ~~32" or 36"~~ - 108 SQ. FT.

SUPERSEDES: 1/1/71

DESCRIPTION: Mineral Surface Roll Roofing

CODE	RAW MATERIALS PER SQ. DESCRIPTION	MATERIALS PER ROLL NET WEIGHT	MATERIALS PER ROLL GROSS WEIGHT	NET PER 100 Sq. Ft.
	Materials Per sq. ft.			
~~29500~~ 6001-045	Felt - 50# ~~x 36" or 32"~~ 45x36	~~11.3~~ 10.0	~~12.6~~ 11.5	~~10.5~~ 9.3
15400	Saturation - #14-1/2 - 160%	~~18.1~~ 15.0	~~18.6~~ 15.5	16.8 13.9
14200	Coating - #21-1/2	~~11.2~~ 10.0	~~11.5~~ 10.3	~~10.4~~ 9.3
56200	Filler - 53%	~~12.6~~ 11.2	~~13.0~~ 11.5	~~11.7~~ 10.3
56150	Surfacing - #11 Oiled	33.8	36.2	31.3
59050	Backing - Pioneer Talc	1.0	1.7	0.9
				17
	Weight per sq. ft.	~~88.0~~ 81.0		
	Finishing Materials - Wrapper	1		
	Shipping Weight	~~88.1~~ 81.1		

~~All rolls to be shipped without fixtures in rolls.~~

~~1 Underwriters' Label - Glass G Sheet Roofing printed on wrapper.~~ 21x36

1 Printed Wrapper, each roll. Color coded Green ~~and Black~~. ON ACCESS

Direction sheet printed on wrapper.

FIXTURES: ~~Packed separately.~~

~~Packed in units of 20. 20 bags of nails, 20 pints of lap cement. Approx. Shipping Wt. - 32#~~

Lenth of Rolls - 36'0". (No extra allowance for two piece rolls). ~~Wt. of Sheet per 100 Sq. Ft. 81.5#~~ 25.0#

Minimum Wt. of Roll - ~~86.0#~~ 77.0#

NOTE: Sheet must have minimum 3.0# filled coating/100 Sq. Ft. on back.

RCD Operating Speed ~~[illegible]~~ 5.5 Rolls/Hour 550 Production Crew Size ~~[illegible]~~ 17 18½ Unit Roll

COLORS: ~~Colonial Green~~, Black, ~~Brit. Red~~, ~~Meadow~~ [illegible], ~~Gray~~, ~~Snow~~ White, Wood Blende, Brown ~~Blende~~ Acorn

BIRD 005583

BUILT-UP

BLENDS

MEMORANDUM
SHREVEPORT

60# Per Sq

In Reply to | Date | From | To

Subject: FIRESCREEN + JET 80

Movie Black

55 Gray - 51.5% - 31#
51 Black - 48.5% - 29#

Barnwood ~~Bark~~ ~~Blend~~

41-Brown - 30% - 18#
12-Olive - 35% - 21#
46-Tan - 15% - 9#
55-Gray - 20% - 12#

Wood Blend

556 - 30% - 18#
68-Buff 45% - 27#
41-Brown 25% - 15#

Acorn

556 - 5% - 3#
76-Gray - 10% - 6#
12-Olive - 63.5% - 38#
41-Brown - 11.5% - 7#
Glen - 10% - 6#

Weather Blend

71 Gray
~~801~~ - A.C.T. - 66% - 40#
76-Gray - 20% - 12#
41-Brown - 10% - 6#
68-Buff - 4% - 2#

Granite Gray

55 Gray - 65% - 39#
93-White - 15% - 9
76-Gray - 20% - 12

Mahogany

46-Tan 47.5% - 28#
41-Brown - 43.5% - 26#
Glen - 10% - 6#

Brown Blend

41 Brown	50%	23#
51 Black	40%	27#
46 Tan	10%	6#

Frost Brown

41 Brown	5%	3#
556 Gold	40%	23#
68 Buff	25%	15#
720 White	30%	16#

White

93 White - 100% - 60#

Gray

55 Gray - 100% - 60#

BIRD 005586

MEMORANDUM
SHREVEPORT

72# Per Sq

In Reply to | Date | From | To

Subject: Woodscape 80

MAHOGANY

46-TAN — 45.5% — 33.6#
41-Brown — 43.5% — 31.2#
H.W. — 11% — 7.2#
51-Black — — — — — 45#

SUNTAN

556-GAF — 30% — 21.6#
68 Buff — 45% — 32.4#
41-Brown — 25% — 18#
51-Black — — — — — 45#

Dove

55-Gray — 85% — 63.2#
51-Black — 10% — 7.2#
H.W. — 5% — 3.6#
51-Black — — — — 51#

ACORN

556 — GAF — 5% — 3.6#
76 Gray — 10% — 7.2#
12-Olive — 63% — 45.6#
41-Brown — 12% — 8.4#
H.W.-Black — 10% — 7.2#
51-Black — — — — — 45#

BIRD 005587

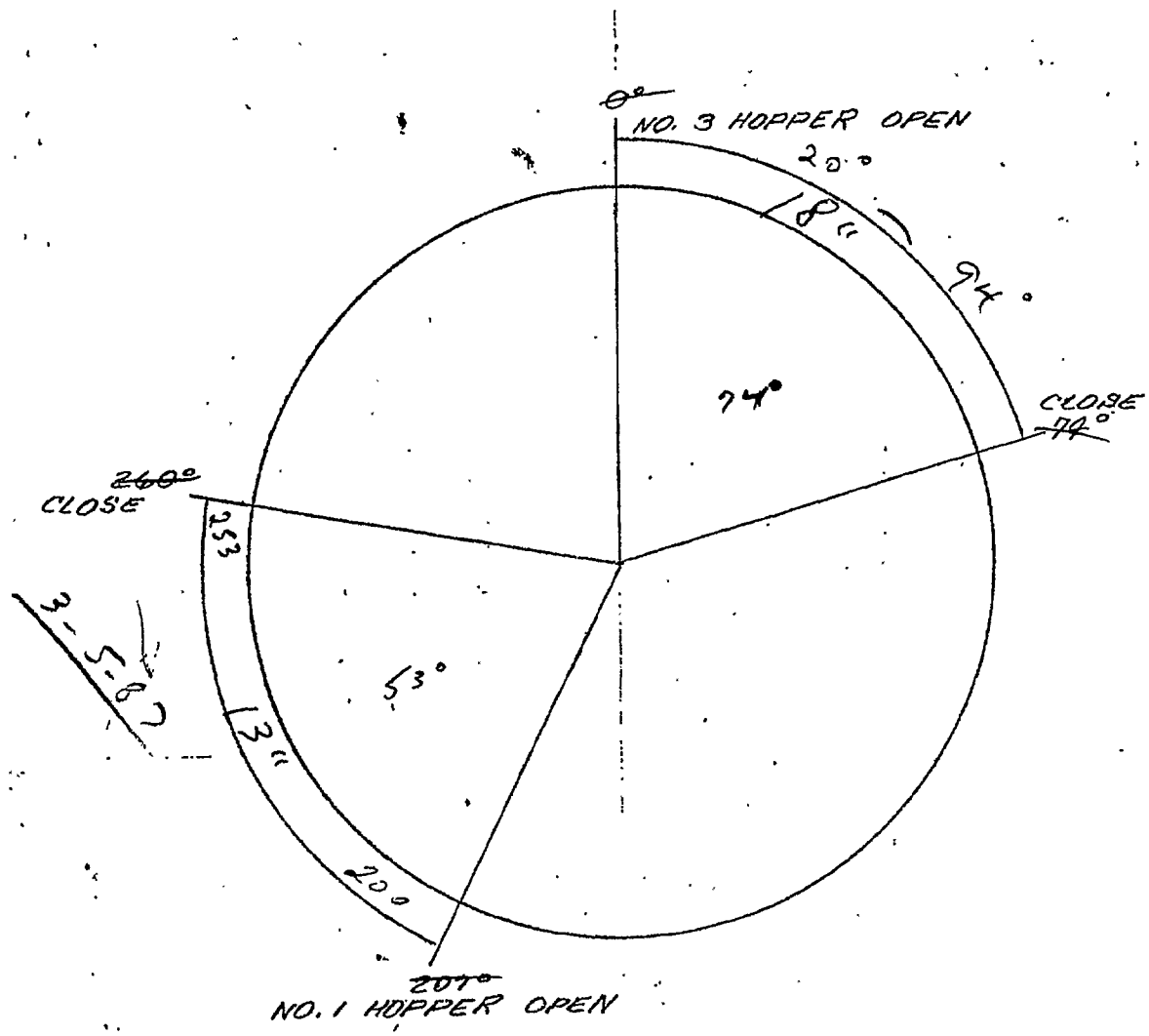
DRAKE 30M 5-79

MEMORANDUM
SHREVEPORT

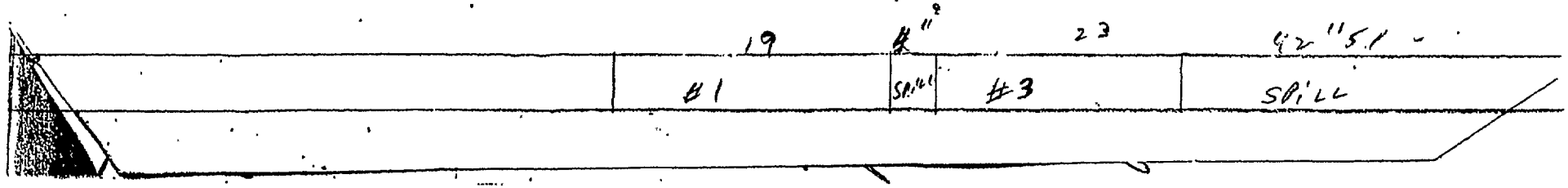
In Reply to _____ Date 12-8-86 From _____ To Mc Clung

Subject Granule used at Shreveport

LR	55	Gray
LR	76	Gray
LR	68	Buff
LR	51	Black
LR	12	Olive
LR	46	tan
LR	71	Gray
LR	41	Brown
YSF	720	white
YSF	556	Prairie Gold



actual full speed



BIRD 005589

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA.

MACHINE #

ISSUED DATE 5-24-88

REV. NEW

PRODUCT CODE

PRODUCT NAME H&R oil GRANULE
EBONYWOOD

SUPERSEDES:

CODE	HOPPER	%	SLATE
	1	80	355
		20	340
	3	25	355
		25	340
	SPILL	50	355
		50	340

USE REGULAR BLEND CLYCLE

RCD Operating Speed

Production Crew Size

Unit

Colors:

BIRD 005590

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA. MACHINE #

ISSUED DATE 5-4-88
REV. NEW

PRODUCT CODE PRODUCT NAME H+R 411 BRAULES OAKWOOD

SUPERSEDES:

CODE	HOPPER	%	SLATE
	1	65	546
		20	552
		15	340
	2	25	546
		60	552
		15	340
	SPILL	45	546
		40	552
		15	340

USE REGULAR BLEND CYCLE

RCD Operating Speed Production Crew Size Unit

Colors:

BIRD 005591

PRODUCT SPECIFICATIONS

ISSUED DATE 10-31-83
REV.

DIVISION SHREVEPORT, LA BLENDES FOR MACHINE #10

PRODUCT CODE _____ PRODUCT NAME GRAY (Universal H&R)
(FIRESCREEN)
(WOODSCAPE - DOVE GRAY)

SUPERSEDES: 4-23-73

CODE	HOPPER	%	SLATE
	4	100	3M 55 Gray

RCD Operating Speed _____ Production Crew Size _____ Unit _____

Colors: _____

BIRD 005592

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA. MACHINE #

ISSUED DATE 1-29-82
REV.

PRODUCT CODE PRODUCT NAME COLONIAL GREEN

SUPERSEDES: 4-24-73

CODE			
	HOPPER	9o	SLATE
	100		LR 37 GREEN

RCD Operating Speed Production Crew Size Unit

Colors:

BIRD 005593

PRODUCT SPECIFICATIONS

ISSUED DATE 10-31-83
REV.

DIVISION SHREVEPORT, LA BLENDES FOR MACHINE #10

PRODUCT CODE _____ PRODUCT NAME GRANITE GRAY (Jet 80)

SUPERSEDES: 4-23-73

CODE	HOPPER	%		SLATE
	1	90		55 Gray
		10	720	~~93 White~~
	3	20	720	~~93 White~~
		40		55 Gray
		40		76 Gray
	Spill	15	720	~~93 White~~
		65		55 Gray
		20		76 Gray

CAM Settings:

Hopper No. 1 Starts 207° Stops 260°
Hopper No. 3 Starts 0° Stops 74°

RCD Operating Speed _____ Production Crew Size _____ Unit _____

Colors: _____

BIRD 005594

PRODUCT SPECIFICATIONS

ISSUED DATE 10-31-83
REV.

DIVISION SHREVEPORT, LA BLENDES FOR MACHINE #10

PRODUCT CODE _____ PRODUCT NAME ACORN (FIRESCREEN)

SUPERSEDES: 5-25-76

CODE	HOPPER	%	SLATE	
	1	10	~~556-65~~ Buff	
		20	76 Gray	116
		70	12 Olive	—
	3	20	Glenwood	
		25	41 Brown	552
		55	12 Olive	—
	Spill	5	~~556-65~~ Buff	3.0 "59
		10	76 Gray	6.0"
		65	12 Olive	38"
		10	Glenwood	6"
		10	41 Brown	7"

CAM Settings:

Hopper No. 1 Starts 207° Stops 260°
Hopper No. 3 Starts 0° Stops 74°

RCD Operating Speed _____ Production Crew Size _____ Unit _____

Colors: _____

BIRD 005595

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA. MACHINE # 10

ISSUED DATE 5/15/87
REV. New

PRODUCT CODE _____ PRODUCT NAME Tower Black

SUPERSEDES:

CODE	HOPPER	%	SLATE
	1	40	55 Gray
		60	51 Black
	3	25	55 Gray
		75	51 Black
		30	55 Gray
	Spill	70	51 Black

CAM Settings:

Hopper No. 1 Starts 200° Stops 253°
Hopper No. 3 Starts 20° Stops 94°

RCD Operating Speed _____ Production Crew Size _____ Unit _____

Colors: _____

BIRD 005596

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA BLENDES FOR MACHINE #10

ISSUED DATE 10-31-83
REV.

PRODUCT CODE _____ PRODUCT NAME GRANITE GRAY (Universal H&R) (JET-80)

SUPERSEDES: 12-1-74

CODE	HOPPER	%	SLATE
	4	15	3M 93 White
		65	3M 55 Gray
		20	3M 76 Gray

RCD Operating Speed _____ Production Crew Size _____ Unit _____

Colors: _____

BIRD 005597

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA BLENDES FOR MACHINE #10

ISSUED DATE 10-31-83
REV.

PRODUCT CODE _____ PRODUCT NAME WOOD BLD (Universal H&R)
(ARCH 80 CYPRESSWOOD)
(WOODSCAPE SUNTAN)

SUPERSEDES: 12-1-74

CODE	HOPPER	%	SLATE
	4	30	3M 65 Buff
		45	3M 68 Buff
		25	3M 41 Brown

RCD Operating Speed _____ Production Crew Size _____ Unit _____

Colors: _____

BIRD 005598

PRODUCT SPECIFICATIONS

ISSUED DATE 10-31-83
REV.

DIVISION SHREVEPORT, LA BLENDES FOR MACHINE #10

PRODUCT CODE _____ PRODUCT NAME Universal H&R MAHOGANY (FIRESCREEN WIND SEAL)
(ARCH 80 - OAKWOOD)
(WOODSCAPE)

SUPERSEDES: 6-2-75

CODE	HOPPER	%	SLATE
	4	45	3M 46 Tan
		~~45~~	3M 41 Brown
		10	SI Black [redacted]

RCD Operating Speed _____ Production Crew Size _____ Unit _____

Colors: _____

BIRD 005599

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA BLENDES FOR MACHINE #10

ISSUED DATE 10-31-83
REV.

PRODUCT CODE _____ PRODUCT NAME MOIRE BLACK (Universal H&R)
(ARCH 80 EBONYWOOD)
(FIRESCREEN)
(WIND SEALS)

SUPERSEDES: 3-29-79

CODE	HOPPER	%	SLATE
	4	50	55 Gray
		50	51 Black

RCD Operating Speed _____ Production Crew Size _____ Unit _____

Colors: _____

BIRD 005600

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA BLENDES FOR MACHINE #10

PRODUCT CODE _____ PRODUCT NAME BEECHWOOD (ARCH 80 H&R)

ISSUED DATE 10-31-83
REV. _____

SUPERSEDES: 12-7-81

CODE	HOPPER	%	SLATE
	4	55	3M 76 Gray
		25	3M 55 Gray
		10	3M 41 Brown
		10	3M 12 Olive

RCD Operating Speed _____ Production Crew Size _____ Unit _____

Colors: _____

BIRD 005601

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA BLENDES FOR MACHINE #10

ISSUED DATE 10-31-83
REV.

PRODUCT CODE _____ PRODUCT NAME BARK BLD (Universal H&R)
(FIRESCREEN)
(WIND SEAL)

SUPERSEDES: 3-7-83

CODE	HOPPER	%	SLATE
	4	30	3M 41 Brown
		35	3M 12 Olive
		15	3M 46 Tan
		20	3M 55 Gray

RCD Operating Speed _____ Production Crew Size _____ Unit _____

Colors: _____

BIRD 005602

PRODUCT SPECIFICATIONS

ISSUED DATE 12/1/74
REV.

DIVISION SHREVEPORT, LA. MACHINE #

SHADE MIXTURE - #11 GRANULES

PRODUCT CODE PRODUCT NAME GRANITE GRAY - 9" X 12" HIP AND RIDGE

SUPERSEDES:

CODE	HOPPER NO. 2	KIND OF SLATE
		LA-93
4	20	CHARCOAL GRAY
	55	3M LR 55 GRAY
	25	3M LR 76 GRAY

RCD Operating Speed Production Crew Size Unit

Colors

BIRD 005603

PRODUCT SPECIFICATIONS

ISSUED DATE 12/1/74
REV.

DIVISION SHREVEPORT, LA. MACHINE #

SHADE MIXTURE - #11 GRANULES

PRODUCT CODE PRODUCT NAME WOOD BLENDE FOR 9" X 12" HIP AND RIDGE

+ 90°

SUPERSEDES:

CODE	HOPPER NO.	%	KIND OF SLATE
	4	35	3M LB 65 Buff
		55	3M LB 68 Buff
		10	3M LB 61 Brown

RCD Operating Speed Production Crew Size Unit

Colors

BIRD 005604

SHINGLES 1

P.R.C SHINGLES

BRAKE EOM 11-74

MEMORANDUM
SHREVEPORT

In Reply to _____ Date _____ From _____ To _____

Subject _____

1-0310-13-01-00

1- truck load in 100# cylinders
Pioneer #564 adhesive — witco chemical
Softening pt. Range 235°F - 245°F
pen @ 77°F - 35-45 mm
pen @ 32°F - 20-26 mm
pen @ 115°F - 44-55 mm
Ductility @ 77°F - approx. 1.5 mm
Flash pt. - 500°F. min.

applied @ 300°F. combining on machine (Kettle 300 to 350)
± 10°F

A 7L

1821-656

PACIFIC DIVISION SHREVEPORT, LA

PRODUCT SPECIFICATIONS

MACHINE #FSPM #10

ISSUED DATE 10/7/83
REV. 3/86

PRODUCT CODE 0635-000

PRODUCT NAME GLASS BILT FIRESCREEN SHINGLES 3 TABS NO.11 GRANULES

SUPERSEDES: ~~9/21/81~~ 10-2-83

DESCRIPTION Size 12 X 36. Cutouts 5" X ¼". 5" Exposure. Sq. Ft. Material per square 240.0 gross 237.9 Net. Shingles per square 80, 3 bundles 27,27,26. Wind Seal Dots on a line 6" up from the bottom edge of the shingle. Minimum dots 1½" long ½" wide, maximum 3" on centers.

CODE	MATERIAL PER SQUARE BASE - 240 SQ. FT.	NET	GROSS	LBS. PER 100 SQ. FT.
29610	GLASS MAT ~~2 LB~~ 1.75 X 48"	~~4.8~~ 4.1	5.1	2.0 1.75
14200	COATING #21½ ASPHALT	51.2 42.0	52.7	21.3 18.0
56200	FILLER ~~60%~~ 66%	76.7 82.0	79.0	32.0 34.2
56406	#11 HEADLAP GRANULES (30)	22.5 [illegible]	24.1	9.4 8.8
56150	#11 COLORED GRANULES (70)	52.6 [illegible]	56.3	21.9 19.7
59050	L-60 SAND ~~[illegible] TALC PIONEER & WINDSOR~~ 8.6	2.0 8.0	3.4	0.8 3.3
12150	WIND SEAL ADHESIVE	~~[illegible]~~ [illegible]	0.8	----
56675	ANTI-STICK	0.2 0.1	0.2	----
		210.8 206.0	221.6	87.4
	CUTOUTS WT.	1.8 1.4		85.4
	NET WT/SQUARE	209.0 [illegible]		
	FINISHING MATERIALS	1.0 1.0		
	SHIPPING WT.	210.0 205.6		

FINISHING MATERIALS: Kraft Wrap, Glued top flap and ends. Wrapper wt. -0.9/sq. Adhesive - top flap ~~#14 asphalt~~ .02 LB/SQ: Ends glued. H.B. Fuller No. 3950. wrapper color red on Kraft. Underwriter Label Class A Shingles wind resistant printed on wrap. Width of wrap ~~42¼"~~ 42: Repeat ~~35.8~~ 33¼. Std. wt/bld 27ct. ~~71.4#~~ 69.4. Min ~~67.1#~~ 59.0. ~~Max 71.4.~~

NOTE: BACK COATING -10#-12#/100 sq. ft. Max. % Filler - ~~[illegible]%~~ 70%

RCD OPERATING SPEED 450 PRODUCTION CREW SIZE 16 UNIT Square

COLORS: ACORN, ~~A[illegible]~~, WHITE, MOIRE BLACK, WOOD BLEND, ~~M[illegible]~~GANY, ~~BROWN BLEND~~ ~~BARK BLD~~ BARNWOOD, WEATHER BLD, ~~[illegible]~~ DOVE
MEADOW GREEN, FROST BROWN, Brown Blend TILE BROWN, COL GREEN

BIRD 005607

COLOR MIX LBS AND % FOR - FIRESCREEN

Standard LBS per square -- 49.667

PRODUCT COLOR	GRANULE COLOR	LBS REQUIRED PER SQR	MIX %
BARNWOOD	552	14.701	29.6%
	801	17.483	35.2%
	355	10.132	20.4%
	546	7.351	14.8%
DOVE GREY	116	14.701	29.6%
	355	34.966	70.4%
MOIRE BLACK	355	24.834	50.0%
	340	24.834	50.0%
MEADOW GREEN	116	12.665	25.5%
	720	19.867	40.0%
	171	17.135	34.5%
FROST BROWN	556	19.867	40.0%
	560	12.615	25.4%
	720	14.453	29.1%
	552	2.732	5.5%
BROWN BLENDE	340	19.867	40.0%
	546	9.933	20.0%
	552	19.867	40.0%
MAHOGANY	546	22.499	45.3%
	552	22.499	45.3%
	340	4.669	9.4%
WOOD BLENDE	556	14.701	29.6%
	560	22.102	44.5%
	552	12.864	25.9%
WEATHER BLENDE	116	19.867	40.0%
	801	24.337	49.0%
	552	2.732	5.5%
	560	2.732	5.5%
WHITE	720	49.667	100.0%

COLOR MIX LBS AND % FOR - FIRESCREEN/PLUS

Standard LBS per square -- 58.195

PRODUCT COLOR	GRANULE COLOR	LBS REQUIRED PER SQR	MIX %
BARNWOOD	552	17.226	29.6%
	801	20.485	35.2%
	355	11.872	20.4%
	546	8.613	14.8%
DOVE GREY	116	17.226	29.6%
	355	40.969	70.4%
MOIRE BLACK	355	29.098	50.0%
	340	29.098	50.0%
MEADOW GREEN	116	14.84	25.5%
	720	23.278	40.0%
	171	20.077	34.5%
FROST BROWN	556	23.278	40.0%
	560	14.782	25.4%
	720	16.935	29.1%
	552	3.201	5.5%
BROWN BLENDE	340	23.278	40.0%
	546	11.639	20.0%
	552	23.278	40.0%
MAHOGANY	546	26.362	45.3%
	552	26.362	45.3%
	340	5.47	9.4%
WOOD BLENDE	556	17.226	29.6%
	560	25.897	44.5%
	552	15.073	25.9%
WEATHER BLENDE	116	23.278	40.0%
	801	28.516	49.0%
	552	3.201	5.5%
	560	3.201	5.5%
WHITE	720	58.195	100.0%

GENSTAR

INTEROFFICE MEMO

70-01-0001-5010/02

To:

Moire Black

55 Gray 51.5%--28.84#
51 Black 48.5#-27.16#

Wood Blend
556 Buff 30%---16.80#
68 Buff 45%---25.20#
41 Brown 25%---14.00#

Weather Blend
71 A.C.T. 66%--36.96#
76 Gray 20%---11.20#
41 Brown 10%--5.60#
68 Buff 4%---2.24#

Mahogany
46 Tan 47.5%-26.32#
41 Brown 43.5#-24.08#
51 Black 10%--- 5.60#

White
720 White 100%--56#

Brown Blend
41 Brown 50%--22.38#
51 Black 40%--27.05#
46 Brown 10%--6.52#

Acorn
556 Buff 5%--2.80#
76 Gray 10%--5.60#
12 Olive 63.5%-35.56#
41 Brown 11.5%--6.44#
Glen 10%---5.60#

Barnwood
41 Brown 30%--16.80#
12 Olive 35%--19.60%
46 Tan 15%---8.40#
55 Gray 10%-11.20#

Frost Brown
41 Brown 5%---2.80#
556 Buff 40%-22.40#
68 Buff 25%-14.93#
720 White 30%-15.87#

Tile Brown
49 Brown 45%--28.00#
41 Brown 50%--25.20#
68 Buff 5%-- 2.80#

cc:

Meadow Green

76 Gray 25%--14.92#
720 White 40%-22.41#
37 Green 35%-18.77#

Dove Gray
76 Gray 30%--16.79#
55 Gray 70%--39.20#

Col.Green
37 Green 100% 56.00#

Min.Surf.Roll Rfg.
Col.Green
37 Green 36.00#

White
720 White 36.00#

Black
Glen 36.00#

Wood Blend
556 Buff 10.80#
68 Buff 16.20#
41 Brown 9.00#

Weather Blend
71A.C.T. 23.76#
76 Gray 7.30#
68 Buff 1.44#
41 Brown 3.60#

Brown Blend
41 Brown 14.40#
51 Black 18.00#
46 Tan 3.60#

PRODUCT SPECIFICATIONS

ISSUED DATE 10-17-83
REV.

DIVISION SHREVEPORT, LA. MACHINE #10

PRODUCT CODE 06-11-000 PRODUCT NAME #23 WIND SEAL SHINGLES (FLAT)

SUPERSEDES: 8-25-75

SIZE: 12" x 36", Cut-outs 5" x 1/4" Headlap - 2".
Sq. + Gross - 240.0; Net - 237.9 Shingles per Sq. - 80 Per Bdle. - 27, 27, 26, Net Wt. per Sq. 2350
Net Wt. per Bdle. - 78.0 Wind Seal dots applied 6 3/4" from butt of shingle, minimum dots size 1" length x 3/4" width, 9 dots per shingle, maximum spacing 4" on center. Anti-Stick applied in 2" bands down center of back shingle
NOTE: This Standard for use when shingles wrapped on new automatic wrapping machine.

CODE	RAW MATERIALS PER SQ. DESCRIPTION	MATERIALS PER SQUARE NET WEIGHT	GROSS WEIGHT	NET PER 100 Sq. Feet
	BASE: 240 Sq. Ft.			
28800	Felt 55 x 48	27.0	31.1	11.3
15400	Saturation #14½ 175%	47.2	48.6	19.7
14200	Coating #21½	39.3	40.5	16.3
56200	Filler 53%	44.4	45.7	18.5
59050	Backing talc Pioneer & windsor	2.0	3.4	0.8
56406	Surfacing #11 Base Glenwood 30%	22.5	23.6	9.4
56150	Surfacing #11 Colored 70%	52.6	57.8 Bl.4	21.9
12150	Windseal Adhesive	0.8	-	
56675	Bradford Flakes	0.2	-	
				97.9
		236.0		
	Less cut out wt. 2.1 Sq. Ft.	2.0		
		234.0		
	FINISHING MATERIALS	1.0		
		235.0		

Roll Bundle wts

FINISHING MATERIALS: Variation in Shipping Wt. - Max. (27 Ct.) - 82.0#; Min. (26 Ct.) - 75.0#.
Each bundle wrapped with one Kraft wrap-around printed 80# Kraft wrapper - 35.8" repeat 42¼" width, top flap and ends glued.
Wrapper 1 color - Green on Kraft. Wrapper Wt. 1.0# per Sq. - (Glue Ends Only)- 0.015#/Sq. Adhesive - No. 3885, H. B. Fuller & Co. Top Glued with Asphalt Flux 0.1#/Sq.
Underwriters' Label - 1 - Class C Shingles Wind Resistant - 1962 Standard - Printed on as wrapper is glued.

RCD OPERATING SPEED 360 sqs/hr. PRODUCTION CREW SIZE 16 UNIT Square

COLORS: Moire Black, Weather Red, White, Wood Bld., Bark Blende, Mahogany

BIRD 005616

PRODUCT SPECIFICATIONS

PACIFIC
DIVISION SHREVEPORT, LA

MACHINE #FSPM #10 — 3/1 / 3/9

ISSUED DATE 10/7/83
REV.

PRODUCT CODE 0635-000 — PRODUCT NAME [redacted] FIRESCREEN SHINGLES 3 TABS NO.11 GRANULES

SUPERSEDES: 9/21/81

DESCRIPTION Size 12 X 36. Cutouts 5" X ¼". 5" Exposure. Sq. Ft. Material per square 240.0 gross 237.9 Net. Shingles per square 80, 3 bundles 27,27,26. Wind Seal Dots on a line 6" up from the bottom edge of the shingle. Minimum dots ~~1½"~~ 1 long ~~½"~~ ¾ wide, maximum ~~3"~~ 4 on centers.

CODE	MATERIAL PER SQUARE BASE - 240 SQ. FT. (w. coat 56%)	NET				GROSS			LBS. PER 100 SQ. FT.
		w/coat	spot	spot				w. coat	
29610	GLASS MAT 2 Lb X 48"	4.8	4.8	4.8	4.8	5.1	5.1	5.1	2.0
14200	COATING #21½ ASPHALT	53.9	51.2	53.2	55.6	58.8	52.7	56.5	21.3
56200	FILLER 60%	68.6	76.7	79.7	69.8	79.1	79.0	70.6	32.0
56406	#11 HEADLAP GRANULES (30) 40	26.7	22.5	30.0	23.4	32.1	24.1	29.4	9.4
56150	#11 COLORED GRANULES (55) 60	51.6	52.6	45.1	51.1	48.3	56.3	55.2	21.9
59050	#36 TALC PIONEER & WINDSOR	4.0	2.0	2.0	4.1	3.4	3.4	4.8	0.8
12150	WIND SEAL ADHESIVE	0.8	0.8	1.3	1.0	0.8	0.8	0.8	----
56675	ANTI-STICK	0.2	0.2	0.2	0.5	.2	0.2	0.2	----
				215.8	210.3				
		210.8				221.6			87.4
	CUTOUTS WT.	1.8							
	NET WT/SQUARE	209.0							
	FINISHING MATERIALS	1.0							
	SHIPPING WT.	210.0							

FINISHING MATERIALS: Kraft Wrap, Glued top flap and ends. Wrapper wt. -0.9/sq. Adhesive - top flap #14 asphalt .02 LB/SQ: Ends glued. H.B. Fuller No. 3950. wrapper color red on Kraft. Underwriter Label Class A Shingles wind resistant printed on wrap. Width of wrap 42¼": Repeat 35.8. Std. wt/bld 27ct.=71.4#. Min ~~67.1#~~ 66.0. Max 71.4.

NOTE: BACK COATING -10#-12#/100 sq. ft. Max. % Filler - 62%

RCD OPERATING SPEED ~~350~~ 420 PRODUCTION CREW SIZE 16 UNIT Square

COLORS: ACORN, ~~ADOBE~~, WHITE, MOIRE BLACK, WOOD BLEND, ~~MAHOGANY~~, ~~BARK BLEND~~ BARK BLEND, WEATHER BLEND, ARAY

BIRD 005617

DIVISION SHREVEPORT LA.

PRODUCT CODE 0430-000

Jiresseen
Wind Lock
Jet 80
arch 80

PRODUCT SPECIFICATIONS 0433-000

MACHINE # 10

PRODUCT NAME [redacted] Hip & Ridge

No. 11 Granules

m-1-0460-000

ISSUED DATE 12-7-81

REV. 9-5-84

3/86

DESCRIPTION: Size: 9"x12" these shlgs. cut 12x36 with a row of perforations across the shlg. at 9", 18", 27" so that when separated at perforations there will be 4-9"x12" shlgs. Shlgs. per bundle 108; sq. ft. matl. per bundle 81. Each bundle covers 45.0 lineal ft. of Hip & Ridge.

CODE:	MATERIALS: Per Bld. 81 Sq. Ft.	NET#		GROSS#		NET# PER 100 SQ. FT.
29610	Glass Mat	~~1.6#~~	1.4	1.7#		~~2.0#~~ 1.75
14200	Coating Asphalt	~~20.4~~	16.6	~~21.0~~		~~25.2~~ 20.5
56200	Filler ~~55%~~ 60% [redacted]	~~24.9~~	24.9	~~25.6~~		~~30.7~~
56150	No. 11 Granule	25.3	25.3	27.1		31.2
59050	~~#36 Talc~~ L-60 Sand	~~0.7~~	0.7	~~1.2~~		~~0.9~~ 1.06
	Wt/Per 81 Sq. Ft.	~~72.0~~	68.9	~~76.6#~~		~~90.0#~~
	Finishing Materials	0.3				
						86.3
	Shipping Wt.	~~73.2~~	69.2			
	Variation in Shipping Wt. No Underwriter label	Max ~~74.0#~~ 72.0		Min. ~~68.8#~~ 60.0		

RCD OPERATING SPEED 700 PRODUCTION CREW SIZE 16 UNIT BLD.

COLORS: Pillover Color Acorn, [redacted], Mohogany, Moire Black, White, Wood Bld., [redacted] Weather Blend

Brown Blend, Tile Brown, Frost Brown, Barnwood, Meadow Green, Dove Gray, Cal Green

BIRD 005618

4 23 1.4

PRODUCT SPECIFICATIONS

PACIFIC
DIVISION SHREVEPORT, LA

MACHINE #FSPN #10

ISSUED DATE ~~10/7/83~~
REV.

PRODUCT CODE 0635-000

PRODUCT NAME [redacted] GRANULES FIRESCREEN SHINGLES 3 TABS NO.11

10-7-83
SUPERSEDES: ~~9/21/81~~

DESCRIPTION Size 12 X 36. Cutouts 5" X ¼". 5" Exposure. Sq. Ft. Material per square 240.0 gross 237.9 Net. Shingles per square 80, 3 bundles 27,27,26. Wind Seal Dots on a line 6" up from the bottom edge of the shingle. Minimum dots ~~½~~ 1" long ~~⅜~~ ¾ wide, maximum 3" on centers. 12 Dots not 5 1/2 9

CODE	MATERIAL PER SQUARE BASE - 240 SQ. FT.	NET	GROSS	LBS. PER 100 SQ. FT.
29610	GLASS MAT 2 Lb X 48"	~~Spec~~ 4.8 ~~Wilm~~	5.1	2.0
14200	COATING #21½ ASPHALT	~~51.2~~ ~~58.9~~	~~52.7~~ ~~57.2~~	~~21.3~~ ~~23.8~~
56200	FILLER ~~50%~~	~~76.7~~ ~~87.6~~	~~79.0~~ ~~72.9~~	32.0 ~~36.5~~
56406	#11 HEADLAP GRANULES (30)	~~22.5~~ ~~29.2~~	~~24.1~~ 25.0	9.4 ~~12.2~~
56150	#11 COLORED GRANULES ~~(70)~~	~~52.6~~ ~~41.9~~	~~56.3~~ 52.6	21.9 ~~17.5~~
59050	#36 TALC PIONEER & WINDSOR	~~2.0~~ ~~1.4~~	~~3.4~~ 6.9	~~0.8~~ ~~1.3~~
12150	WIND SEAL ADHESIVE	0.8	0.8	----
56675	ANTI-STICK	0.2	0.2	----
		~~210.3~~ 210.8 ~~219.1~~	~~221.6~~ 215.6	~~87.4~~ ~~87.9~~
	CUTOUTS WT.	~~1.8~~ 1.8 ~~1.8~~		
	NET WT/SQUARE	~~208~~ 209.0 ~~217~~		
	FINISHING MATERIALS	~~2~~ 1.0 ~~2~~		
	SHIPPING WT.	~~210~~ 210.0 ~~210~~		

FINISHING MATERIALS: Kraft Wrap, Glued top flap and ends. Wrapper wt. -0.9/sq. Adhesive - top flap #14 asphalt .02 LB/SQ: Ends glued. H.B. Fuller No. 3950, wrapper color red on Kraft. Underwriter Label Class A Shingles wind resistant printed on wrap. Width of wrap 42¾": Repeat 35.8. Std. wt/bld 27ct.=~~71.4~~ 70.3#. Min ~~67.1~~ 64.6#. Max 71.4.

NOTE: BACK COATING -10#-12#/100 sq. ft. Max. % Filler - 62%

RCD OPERATING SPEED 450 PRODUCTION CREW SIZE 16 UNIT Square

COLORS: ACORN, ADOBE, WHITE, MOIRE BLACK, WOOD BLEND, MAHOGANY, BROWN BLEND

BIRD 005619

DIVISION SHREVEPORT, LA.

PRODUCT CODE 0631

PRODUCT SPECIFICATIONS
MACHINE # 10
PRODUCT NAME JET 80
#11 Granules

ISSUED DATE 12-7-81
REV:

DESCRIPTION: Size 36" Long 11 3/4" to 12¼" wide staggered butt, wind seal adhesive in the form of dots on a line 6 3/4" up from center line of staggered butt. Min dots 1" long 3/4" wide 9 dots per shlg. 80 shlgs. per sq. 3 Blds. 27, 27, 26. Min Wt. per Bld. 27 shlgs. ~~68.8#~~ 64.6 std ~~70.9#~~ 70.3

CODE:	MATERIALS: Sq. - 240 Sq. Ft.	NET#	GROSS#	NET# PER 100 SQ. FT.
29610	Glass Mat	4.8	5.1	2.0
14200	Coating 21½ Asphalt	~~59.4~~	~~61.2~~	~~24.8~~
56200	Filler ~~55%~~ 60%	~~72.5~~	~~74.7~~	~~30.2~~
56406	#11 Headlap Granules ~~30~~ ~~40~~	~~22.5~~	24.1	~~9.4~~
56150	#11 Colored Granules ~~70~~ 65	~~52.6~~	56.3	21.9
59050	#36 Talc	~~2.0~~	3.4	0.8
12150	Wind Seal Adhesive	~~1.8~~	1.8	
56675	Anti-Stick	~~0.2~~	0.2	
	Weight/Square	215.8	~~226.8~~	~~89.1~~ 6.4
	Finishing Materials	~~1.0~~		
	Shipping Wt.	~~216.8~~ 210.0		

FINISHING MATERIALS: Kraft Wrap glued top flaps and ends. Wrapper wt. 0.9#/sq. Adhesive top flap #14 asphalt .02# sq. Ends glued H.B. Fuller No. 3950. Width of wrap 42¼" Repeat 35.8". Underwriters Class A wind resistant label stamped on each Bld. Wrapper color Blue [redacted].

RCD OPERATING SPEED 380 PRODUCTION CREW SIZE 16 UNIT Square

CO[illegible]: Acorn, ~~Adoge~~, ~~Brown Bld.~~, ~~Desert Brown~~, Mahog[illegible], Moire Black, White, Wood Bld. Granite Gray

BIRD 005620

ELVAX

88.0 % asphalt

10.0 % wax

2.0 % ELVAX

= 3520# asphalt

400 # wax

80 # Elvax

Elvax = 8.83# gal

= 80# full charge

= 3.3 pts / in

1 Pt = $\frac{1}{2}$#

DRAKE 50M, 10-81

MEMORANDUM
SHREVEPORT

In Reply to _____ Date 5-3-83 From _____ To _____

Subject WS Adhesive

Lion Asphalt	3555#	- 88.9
Wax	- 400#	- 10.0
Rubber	- 45#	- 1.1
	4000#	100.0 %

Wax = 8.3"

Rubber = 0.937 approx 1 pt/in

48" full charge

0.166#/in

every 5½" = 1 pt

BIRD 005622

PRODUCT SPECIFICATIONS

ISSUED DATE 4/26/73

REV.

DIVISION SHREVEPORT, LA.

MACHINE #

PRODUCT CODE

PRODUCT NAME SOLUTION PREPARATION OF BRADFORD SOAP FLAKES FOR ANTI-STICK FOR #23 W. S., ~~#23 W. S. JET~~ - JET II ~~ARCHITECT MARK 25~~, ARCHITECT 70 SHINGLES Woodscape

SUPERSEDES: 7/1/69

FORMULA: Bradford Soap Flakes
83 - 85% solids as received. Dissolved and diluted to approximately 16% solution by weight for summer, 12% solution for winter.

CODE MIXTURE PREPARATION

Add approximately [illegible] water into empty Anti-Sticks tanks. Turn on steam and bring water to boiling. Add [illegible] flakes at a rate of 10[illegible] per inch for final filling of tanks, - east tank is 108" deep, [illegible] tank is 84" deep. Keep solution at boiling, taking care that solution doesn't foam over top of tank. When flakes have gone into solution turn off steam and add water to fill tanks. [illegible] 160° for running to machine.

East Tank — 51½" dia X 109"

West Tank — 53½ dia X 84"

Over

RCD Operating Speed

Unit

Col

BIRD 005623

ELVAX

88.0 lb asphalt

10.0 lb wax

2.0 lb ELVAX

= 3520# asphalt

400# wax

80 # Elvax

Elvax = 8.83# gal

= 80# full charge

= 3.3 pts/in

1 Pt = $\frac{1}{2}$#

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA. MACHINE #

ISSUED DATE 4/26/73
REV.

PRODUCT CODE PRODUCT NAME WIND SEAL SHINGLE ADHESIVE

SUPERSEDES: 5/12/66

FORMULA:	LBS./BATCH	% By Wt:
Lion Oil Shingle Adhesive	3527-3627	88.17
~~Sunoco #5512 Wax~~	~~400~~	10.00
Pliopave L-170 (70%)	73	1.83

Mixing Temp.-Min. 250°F. Max. - 300°F.
Precaution: - Never let the temperature of the mixture go over 325° F. and try to keep below 300°F.
CODE:

PROCEDURE: The Lion Oil Shingle Adhesive is pumped from storage tank to mixing tank. Maintain temperature 275° - 300° F. Add Sunoco #5512 by breaking up slabs and blend until wax is melted and mixed. With temperature between 250° F. and 290°F. add Pliopave L-170 into vortex of lightning mixer. The rate of adding the Pliopave depends on how rapidly the latex is dispersed into the asphalt. Mix for a minimum of ½ hours. A sample must be tested by the Laboratory before using.
Temperature for use on roofing machine is 280° F. to 300° F.

NOTE:

	M.P.	Pen. @ 77°	Pen. @ 115°
Lion Oil Shgle. Adhes.			
Summer	170°-175°F.	15 MM Max.	40 MM Max.
Winter	165°-170°F.	15 MM Max.	40 MM Max.
Wind Seal Adhesive			
Summer	150°-155°F.	15 MM Max.	80 MM Max.
Winter	148°-153°F	15 MM Max.	80 MM Max.

RCD Operating Speed Production Crew Size Unit

Col

BIRD 005629

PRODUCT SPECIFICATIONS

ISSUED DATE 4/20/73
REV.

DIVISION SHREVEPORT, LA. MACHINE #1

PRODUCT CODE #14200 PRODUCT NAME NO. 21-1/2 ASPHALT

SUPERSEDES:

USE: Asphalt Coating for all FSPM-1 shingle products.

FORMULA: Blown from approx. equal parts of ~~Hoeston~~ CRYSTAL, ~~Talco~~ TOSCO, and ~~Lion Flux~~ BERRY. ~~The percentage of Hoeston Flux not to be over [illegible]~~. Blown in FSQ Vertical Stills.

CODE	Specifications	Soft	Std.	Hard
	Melt Point - °F.	~~218°~~ 205	~~220°~~ 215	222°
	Penetration @77° -	~~16~~ 17	~~14-1/2~~ 15	13 Min.

Process:

Charged -	146,311#
Yield -	140.459#
Cycle of 6-1/4 hrs. composed of charging-	3/4 Hour
Blowing -	4-3/4 Hour
Storage -	3/4 Hour
Shrink -	4.0%
Lbs. per gallon @ 60° -	8.4

RCD Operating Speed _____ Production Crew Size _____ Unit _____

Co[illegible]s: _____

BIRD 005633

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA. MACHINE #

ISSUED DATE 4/23/73
REV.

PRODUCT CODE 14800 PRODUCT NAME ASPHALT FLUX

The Bayou State Oil Corp. - Shreveport, La.

SUPERSEDES: 6/29/54

Davidson
Bld starter 4-3-80

CODE

M. P. (B & R)	- 95 - 115°F.
Minimum Penetration @ 77°	- 175 mm.
Minimum Flash	- 590° F. (c.o.c.)
Solubility in CS_2	- 99.5% Min.
Solubility in CCl_4	- 99.5% Min.

This flux shall not contain Caustic Lube Residue. It shall be homogenious, free from water, and shall not foam when heated to 400°F.

Note: This flux is not to be used by itself to blow coating asphalt. It should not be present in greater quantities than 33-1/3% of the total flux in the flux tank.

RCD Operating Speed Production Crew Size Unit

Colors:

BIRD 005634

FLASH PT
CLOSED CUP = 115°F
8-18-80

PRODUCT SPECIFICATIONS

ISSUED DATE 4/24/73
REV.

DIVISION SHREVEPORT, LA. MACHINE #

PRODUCT CODE 32 12 000 / 30 17 000 PRODUCT NAME BUCA (BUILT-UP COLD APPLICATION ADHESIVE)

SUPERSEDES: 4/28/64

CODE	FORMULA	% BY WT.	LBS.	GALLONS
15400	#17-1/2 Asphalt (175 - 180° S. P.)	50.6	4048	540
13650	Asbestos - 7R	12.0	960	
36600	Naphtha - Stoddard	37.4	2992	459
	Yield - 7840# - 8.1# per gallon -			
	Loss - 2%			
	Consistency - Schutte - 3/4" Orifice - 30 Sec. @ 86°			
	CONTAINERS: 5 Gal. Cans - Labels Pasted on.			
	Shipping Wt. - 44# 46.0#			
	Units per Crew Hour - 40			
	Man Hours per unit - 0.050			

PROCESS: Run #17-1/2 into Mixer. Turn on water in cooling jacket. After temp. is below 300° F. add Naphtha. Allow this to mix completely and then add Asbestos. Fill containers after temperature is below 160°F.

RCD Operating Speed Production Crew Size Unit

Color:

BIRD 005635

[illegible] 192°F
[illegible]

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA

MACHINE #

ISSUED DATE 9/7/79
REV:

PRODUCT CODE 30 16 000 PRODUCT NAME: SPECIAL FLASHING CEMENT

SUPERSEDES: 4/24/73

CODE	FORMULA	% BY WT.	LBS.	GALLONS
15400	#13 - 1/2 Asphalt	64.0	3828	524
39250	Kerosene	14.0	993	153
36600	Stoddard Naphtha	14.0	993	159
13450	Asbestos 6D	9.0	638	
13650	Asbestos 7R	9.0	638	

Yield - 7019# - 7.9# per Gallon
Loss - 1%
Consistency @ 77° Schutte Min. - 5 sec. Max. - 10 sec.

Containers:
5 Gal Drums - Metal, Lithographed, White on Black, 29 Ga. - Shipping Wt. - 42.5#.
30 Gal Drums - Plain, Black, Labels pasted on - Shipping Wt. - 295# (Reworked Drums).
52 Gal. Drums - Plain, Black, Labels pasted on - Shipping Wt. - 459# (Reworked Drums).
1 Gal., plain metal cans, packed 6/case, no filler pieces, 56.0# (Special Order Only).

PROCESS: #13 - 1/2 pumped into mixer, when temperature is below 325°F., add Kerosene, when thoroughly mixed and temperature is below 200°F., add Naphtha, and then the Asbestos.

RECORD RUN LOG:

units/shift	date

RCD Operating Speed _____ Production Crew Size _____

CO[illegible]:

BIRD 005636

[illegible] 192°F
[illegible]

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA

MACHINE #

ISSUED DATE 9/7/79
REV:

PRODUCT CODE 30 16 000 PRODUCT NAME: SPECIAL FLASHING CEMENT

SUPERSEDES: 4/24/73

CODE	FORMULA	% BY WT.	LBS.	GALLONS
15400	#13 - 1/2 Asphalt	64.0	3828	524
39250	Kerosene	14.0	993	153
36600	Stoddard Naphtha	14.0	993	159
13450	Asbestos 6D	9.0	638	
13650	Asbestos 7R	9.0	638	

Yield - 7019# - 7.9# per Gallon
Loss - 1%
Consistency @ 77° Schutte Min. - 5 sec. Max. - 10 sec.

Containers:
5 Gal Drums - Metal, Lithographed, White on Black, 29 Ga. - Shipping Wt. - 42.5#.
30 Gal Drums - Plain, Black, Labels pasted on - Shipping Wt. - 295# (Reworked Drums).
52 Gal. Drums - Plain, Black, Labels pasted on - Shipping Wt. - 459# (Reworked Drums).
1 Gal., plain metal cans, packed 6/case, no filler pieces, 56.0# (Special Order Only).

PROCESS: #13 - 1/2 pumped into mixer, when temperature is below 325°F., add Kerosene, when thoroughly mixed and temperature is below 200°F., add Naphtha, and then the Asbestos.

RECORD RUN LOG:

units/shift	date

RCD Operating Speed _____ Production Crew Size _____

CO[illegible]S:

BIRD 005636

Flash pt
closed cup = 275°F
8-18-80

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA MACHINE #

ISSUED DATE 9/7/79
REV:

PRODUCT CODE 30 14 000 PRODUCT NAME: PLASTIC CEMENT

SUPERSEDES: 4/29/73

(1972)
Pg. 717
D 2822-76

CODE	FORMULA	% BY WT.	LBS.	GALLONS
15400	#13 - 1/2 Asphalt	52.0	5193	681
13650	7R Asbestos	14.0	1400	
59150	#36 Talc	14.0	1374	
56200				
39250	Kerosene	3.0	305	45
36500	Stoddard Naphtha	18.0	1784	300

Yield - 8990# wt. per Gal. - 2.7 - Gal.
Loss - 1%
Consistency - Schutte @ 77°F. - 5-10 sec.

Containers:
1 pt. lithographed cans, packed 12 to case, with no filler pieces - 17.75#.
1 qt. lithographed cans, packed 12 to case, no filler pieces - 38#.
1/2 gallon lithographed cans, packed 6 to case, no filler pieces - 32.5#.
1 gallon lithographed cans, packed 6 to case, no filler pieces - 62.5#.
5 gallon, lithographed, 29 Ga., 49.0#.
30 gallon, metal, black, labels pasted on. (Reworked drums) Shipping Wt. - 335#.
52 gallon, metal, black, labels pasted on. (Reworked drums) Shipping Wt. - 526#.

PROCESS: Run #13 - 1/2 asphalt into mixing tank. Turn on water in cooling jacket. When temp. is below 300°F., add Talc, Filler, asbestos, Kerosene and then Naphtha. Mix for a minimum of 10 minutes after all material has been added before catching sample. Each batch must be approved by laboratory.

ACD Operating Speed Production Crew Size

CC #:

BIRD 005637

DRAKE SOM 1-61

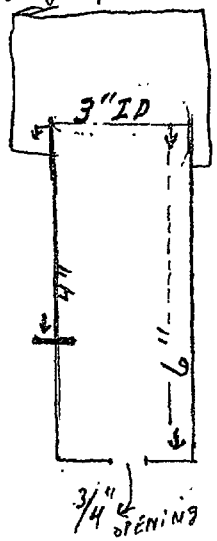
233

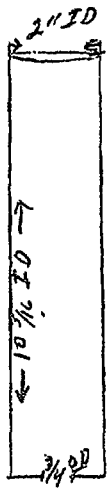
MEMORANDUM
SHREVEPORT

333
350

In Reply to ETC Date From To

Subject Rod Cut - PLASTIC SAFETY







BIRD 005638

BIRD 005639

Flash pt
closed cup = 135°F
8-16-80

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA

MACHINE #

ISSUED DATE 9/7/79

REV:

PRODUCT CODE ~~30 05 000~~ 3027

PRODUCT NAME: BIRD REFLECTO-COAT ALUMINUM ROOF COATING

SUPERSEDES: 4/24/73

CODE	FORMULA	% BY WT.	LBS.	GALLONS
14200	Asphalt - 175	26.0	1120	149
36600	Naphtha - Stoddard	48.0	2070	345
13750	Union Carbide	7.4	320	
12750	Al Paste - Alcoa 6233	18.6	800	
	Yield - 4138 # - 525 - 7.9/Gal.			
	Loss - 4%			
	Consistency - Schutte @ 77° - 2 1/2 Sec.			
	1 1/2 - 2 1/2 Sec.			
	Containers:			
	1 Gallon, plain, labels pasted on.			
	Packed 6 - 1 gallon cans per carton. Wt. 55#			
	5 Gallon, plain, black - labels pasted on. Shipping Wt. - 42.5#			

PROCESS: Run #175 into mixer. Turn water on in cooling jacket. When temperature is below 250°F., add Stoddard Naphtha. After addition of stoddard add asbestos fibre. After fibre has been added and mixed, add Aluminum paste - breaking it up as it is added. Mix for 30 minutes after aluminum has been added and then obtain samples for testing.

RCD Operating Speed _____ Production Crew Size _____ Unit _____

Colors: _____

Flash Pt.
Closed Cup - 105°F
6-16-90

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA. MACHINE #

ISSUED DATE 4/24/73
REV.

PRODUCT CODE 3003000 PRODUCT NAME ASPHALT PROTECTIVE COATING

SUPERSEDES: 8/1/60

CODE	FORMULA	% By Wt.	Lbs.	Gallons
14200	#21 Asphalt	49.6	3945	526
36600	Naphtha (Stoddard)	50.4	4013	639

Yield - 1153 Gallons - 7878# - 6.9#/gal
Loss - 1%

Consistency - Schutte - 3/4" Orifice - 1-1/2 - 1-2/3 Sec. @ 62°F.

Containers:
1 Gal. Metal, plain, labels pasted on. Packed 6 to case, no filler pieces per case - ~~46#~~ 49#
5 Gal. Metal, black, 29 ga., labels pasted on. Shipping Wt. ~~40.5#~~ 39.5#
30 Gal. Metal, black, labels pasted on. Shipping Wt. - 260#. (Reworked drums)
52 Gal. Metal, black, labels pasted on. Shipping Wt. - ~~451.0#~~ 402# (Reworked drums)

PROCESS: Run #21 Asphalt into mixer. Turn on water in cooling jacket. When temperature is below 225°F, add Naphtha. Each batch must be tested and approved by the laboratory.

RCD Operating Speed Production Crew Size Unit

Color:

BIRD 005640

PRODUCT SPECIFICATIONS

ISSUED DATE 4/24/73
REV.

DIVISION SHREVEPORT, LA. MACHINE #

PRODUCT CODE 22 30000 / 30 08000 PRODUCT NAME PRIMER (TO MEET GOV'T SPEC. SS-A-701)

SUPERSEDES: 8/1/60

CODE	FORMULA	% BY WT.	LBS.	GALLONS
15400	#13-1/2 Asphalt	40	3105	427
36500	Naphtha-Stoddard	60	4658	738
	Yield - 1153 Gallons = 7685# = 6.7#/gal			
	Loss - 1%			

Containers:
5 Gallon drums plain, 29 Ga. - Labels pasted on. Wt. - 35#.
30 Gallon drums plain - Labels pasted on. Wt. - 25#. (Reworked)
52 gal. drums " " " Wt. - 41# 39#

Min. Flash Point - 110°F.

PROCESS: #13-1/2 run into mixer. Turn on water in cooling jacket. When temperature is below 200°F., add Naphtha.

RCD Operating Speed Ehrl Latch Production Crew Size Unit

Color:

BIRD 005641

BIRD 005642

Flash Pt.
Closed cup = 105°F
8.18.83

PRODUCT SPECIFICATIONS

ISSUED DATE 4/24/73
REV.

DIVISION SHREVEPORT, LA. MACHINE #

PRODUCT CODE 30 02 000 PRODUCT NAME ROOF COATING (FIBERED)

SUPERSEDES: 8/1/71

CODE	FORMULA	% BY WT.	LBS.	GALLONS
15400	#13-1/2 Asphalt	50.0	3875	508
13650	Asbestos - 7R	12.0	930	
36600	Stoddard Naphtha	38.0	2945	470
	[redacted]			
	Yield - [redacted]# - [redacted] Gal. Strike @ [redacted]			
	Consistency @ 77°F. - 15 to 25 seconds.			

Containers:
1 gallon, metal, lithographed, packed 6 to case, no filler pieces. ~~51.25#~~ 53#
5 gallon, metal, lithographed, 29 Ga. - ~~[redacted]~~
30 gallon, metal, black, (Reworked Drums), labels pasted on. Shipping Wt. - 265.0#.
52 gallon, metal, black, (Reworked Drums), Labels pasted on. Shipping Wt. - ~~470.0#~~ 443.#

Revised 12/18/73

PROCESS: Run Asphalt into mixer. Turn on water in cooling jacket. Add Asbestos. When temp. is below 200°F. add Naphtha. Each batch must be approved by laboratory.

RCD Operating Speed _____ Production Crew Size _____ Unit _____

Comments: _____

PRODUCT SPECIFICATIONS

ISSUED DATE 4/23/73
REV.

DIVISION SHREVEPORT, LA. MACHINE #

PRODUCT CODE 11200 - C PRODUCT NAME NO 21 ASPHALT

SUPERSEDES: 3/1/61

USE: Quick Set Lap Cement, Asphalt Protective Coating - FSC. Approx. 210° M. P. Processed Asphalt.

FORMULA: Blown from approx. equal parts of Hosston, Talco and Lion fluxes. The percentage of Hosston flux not to be more than 33-1/3%. Blown in FSQ Vertical Still.

CODE	Specifications	Soft	Std.	Hard
	Melt Point - °F	205	210	215
	Penetration @ 77° -	19	17	15
	Process			
	Charged -	146,311#		
	Yield -	140,459#		
	Shrink -	4.0%		
	Cycle of 5¼ Hours composed of			
	Charging -	3/4 Hour		
	Blowing -	3-3/4 Hour		
	Storage -	3/4 Hour		
	lbs. per gallon @ 60° - 8.4			

RCD Operating Speed Production Crew Size Unit

Co[illegible]s:

BIRD 005643

BIRD 005644

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA. MACHINE #

ISSUED DATE 4/20/73
REV.

PRODUCT CODE 15400 - C PRODUCT NAME BIRD #17½ ASPHALT

SUPERSEDES: 3/1/61

USE: FSC - Reflecto Coat, Buca

FORMULA: Blown from approx. equal parts of Hosston, Talco, and Lion Flux. The percentage of Hosston flux not to be over 33⅓%. Blown in FSQ Vertical Still.

CODE	Specification	Soft	Std.	Hard
	Melt Point- °F	170°	175°	180°
	Penetration 77°F	23	21	19

Process

Charged -	146,311#
Yield -	140,459#
Shrink -	4.0%

Cycle of 4½ Hours composed of

Charging -	3/4 Hour
Blowing -	3 Hour
Storage -	3/4 Hour

Lbs. per gallon - 8.4

RCD Operating Speed Production Crew Size Unit

Co[illegible]s:

BIRD 005645

PRODUCT SPECIFICATIONS

ISSUED DATE 4/20/73
REV.

DIVISION SHREVEPORT, LA. MACHINE # 1

PRODUCT CODE #15400 PRODUCT NAME NO. 14 ASPHALT

SUPERSEDES: 3/1/61

USE: Saturation for all Products on FSPM-1, [redacted] for FSC. Approx. 140° M. P. Processed Asphalt.

Tesco, CRYSTAL

FORMULA: Purchased from approved sources by Berry Asphalt, and also blown in FSQ Vertical Still from Flux storage tank.

CODE	Specifications	Soft	Std.	Hard
	Melt Point - °F	135°	138°	143°
	Penetration @ 77°	55	45	40

Process:

Charged -	146,311#
Yield -	140,459#
Shrink -	4.0%

Cycle of 3½ hours

Charging -	3/4 Hr.
Blowing -	1-3/4 Hr.
Storage -	3/4 Hr.

Lbs. per gallon - 8.4

Note: If material is purchased it is ready to use as saturation (MP 135° - 145°) and costs $1.00/ton more than Flux Oil that must be processed.

525 Flux
MP 100-110
Pen 180 +
Flash 590 min

RCD Operating Speed Production Crew Size Unit

Costs:

BIRD 005646

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA. MACHINE #

ISSUED DATE 4/23/73
REV.

PRODUCT CODE 14800 PRODUCT NAME ASPHALT FLUX

The Lion Oil Corp. - El Dorado, Arkansas
The Henry H. Cross Co. - El Dorado, Arkansas

SUPERSEDES: 6/29/54

CODE

M. P. (B.R.)	-	80 - 90°F.
Minimum Penetration @ 77°	-	~~200 mm.~~ 150 Min.
Minimum Flash	-	590°F. (c.o.c.)
Solubility in CS_2	-	99.5% Min.
Solubility in CCl_4	-	99.5% Min.

This flux shall not contain Caustic Lube Residue. It shall be homogenious, free from water, and shall not foam when heated to 400°F.

Asphalt blown from this flux to coating specifications must conform to the requirements set by the Laboratory. The following is the most desirable analysis.

M. P.	-	~~220° - 230°F.~~ (B & R) 195 - 210°
Pen. at 77°	-	~~13 - 16 mm.~~ 15 - 19
Duct. at 77°	-	2 cm. plus
Stain at 144°F	-	Satisfactory

RCD Operating Speed Production Crew Size Unit

Color

BIRD 005647

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA. MACHINE # 3

ISSUED DATE 4/23/73
REV.

PRODUCT CODE 15375 PRODUCT NAME ASPHALT FLUX - FSPM-3

SUPERSEDES: 8/1/58

USE: Saturation for all products made on FSPM-3.

FORMULA: Purchased from approved sources by Berry Asphalt.

CODE	SPECIFICATIONS
	Melt Point - °F. Approx. 100° - 115°
	Penetration @ 77° 150 MM Minimum

Note: This material is used as received with no processing involved except for heating. There is an estimated 1/2% shrink due to circulating.

RCD Operating Speed _____ Production Crew Size _____ Unit _____

Cold _____

BIRD 005648

PRODUCT SPECIFICATIONS

ISSUED DATE 4/23/73
REV.

DIVISION SHREVEPORT, LA. MACHINE #

PRODUCT CODE 14800 PRODUCT NAME ASPHALT FLUX

~~American Liberty Asphalt Corp.~~ - Mt. Pleasant, Texas SUPERSEDES: 6/29/54

Dorchester Refining Co.

CODE

M. P. (B. & R.)	-	95 - 105°F
Penetration @ 77°	-	150 [redacted] min.
Minimum Flash	-	550° F. (C.O.C.)
Solubility in CS_2	-	99.5% Min.
Solubility in CCl_4	-	99.5% Min.

This flux shall not contain Caustic Lube Residue. It shall be homogenious, free from water, and shall not foam when heated to 400°F.

Asphalt blown from this flux to coating specification must conform to the requirements set by the Laboratory. The following is the most desirable analysis.

M. P.	-	~~218° - 222°~~ F. (B & R) 195 - 210
Pen. @ 77°	-	~~13 - 16 mm~~ 15 - 19
Duct. @ 77°	-	2 Cm. plus
Stain at 144°F.		Satisfactory

RCD Coating Speed Production Cr Size Unit

Color

BIRD 005649

PRODUCT SPECIFICATIONS

ISSUED DATE 4/23/73
REV:

DIVISION SHREVEPORT, LA. MACHINE #

PRODUCT CODE PRODUCT NAME BIRD DEAD LEVEL BITUMEN

SUPERSEDES: 6/28/54

USE: For use on applications of Asphalt Perforated Felt in Built-Up on "Dead Level Roofs".

SOURCE: Purchased for Bird & Son from any Laboratory approved refinery.

CODE	Specifications:	
	Softening Point (B & R)	135° - 150°F.
	Pen. @ 32° F.	10 Min.
	Pen. @ 77° F.	30 - 45
	Pen. @ 115°F.	80 Min.
	Ductility @ 77° F.	10 Min.
	Flash Point	475° F. Min.
	Solubility in CS_2%	99.5 Min.
	Solubility in CCl_4%	99.5 Min.
	Volatile Loss, 5 hrs. @ 325°F.	0.5 Max.
	Residue, % of Original Penetration after Volatile Loss Heating	60% Min.

RCD Operating Speed Production Crew Size Unit

Color

#	MP	Pen
18 asphalt —	190-200	18-25
Level Desk asphalt —	140 to 150	24-45



Flash pt
Closed cup = 160°F
1-18-80

PRODUCT SPECIFICATIONS

ISSUED DATE 4/24/73
REV.

DIVISION SHREVEPORT, LA.

MACHINE #

PRODUCT CODE 32 08 000
3015000

PRODUCT NAME QUICK SETTING LAP CEMENT

SUPERSEDES: 8/1/60

CODE	FORMULA	% By Wt.	LB.	Gallons
14200	Asphalt #21	42.0	3150	420
39250	Kerosene	12.0	900	137
36600	Naptha (Stoddard)	12.0	900	148
13650	Asbestos (7R)	5.0	375	
56200	Glenwood Filler	29.0	2175	

Yield - 7425#, ~~[illegible] Gal.~~ - ~~9.6#~~ 8.2#/Gal.
Loss - 1%
Consistency - Schutte @ 77° - 6-12 Sex.
Flash Point - 110° F., Minimum - C.O.C.

Containers:
1 Pt. Caulking cartridge packed 24 to box - 24.0#
1 Qt., Metal, lithographed, packed 12 to case, no filler pieces - 32#.
1/2 Gal., Metal, lithographed, packed 6 to case, no filler pieces -35#
1 Gal., Metal, lithographed, packed 6 to case, no filler pieces - ~~62#~~ 60#
5 Gal., Metal, lithographed, 29 Ga., Shipping Wt. ~~51.0#~~ 46.5#

PROCESS: Run #21 into mixer, turn on water in water jacket, add Filler and Asbestos. When temperature is below 300° F., add Kerosene. When temperature is below 200° F., add Naptha. Each batch must be approved by Laboratory.

RCD Operating Speed _____ Production Crew Size _____ Unit _____

Co[illegible]s: _____

BIRD 005651

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA. MACHINE #

PRODUCT CODE 32 05 000 PRODUCT NAME LAP CEMENT

ISSUED DATE 4/24/73
REV.

SUPERSEDES: 8/1/60

CODE	FORMULA	% By Wt.	Lbs.	Gallons
15400	#13-1/2 Asphalt	65.0	5223	697
39250	Kerosene	22.0	1768	271
36600	Naphtha-Stoddard	7.5	603	96
13650	Asbestos VR	[illegible]	[illegible]	
	Yield - 7956# [illegible]	8.2 [illegible]		
	Loss - 1%			
	Consistency - Schutts - 3/4" [illegible]			

Containers:

1 Pt. Cans

1 Gal. Cans - Plain - Labels pasted on. Packed [illegible] case, no filler pieces per case. Wt.-60#

5 Gal. drums - Black - 29 Ga., labels pasted on. Shipping Wt. - 42.0#.

30 Gal. Drums - Black - Labels pasted on. Shipping Wt. - 265#. (Reworked drums)

52 Gal. Drums - Black - Labels pasted on. Shipping Wt. - 475#. (Reworked drums)

PROCESS: Run #13-1/2 into mixer. Turn on water in cooling jacket. When temperature is below 300°F. add Kerosene and Asbestos. When temperature is below 200°F., add Naphtha. Fill container when temperature is below 160°.

RCD Operating Speed _____ Production Crew Size _____ Unit _____

Color: _____

BIRD 005652

GLENWOOD
GRANULES

BIRD 005654

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA. MACHINE #

PRODUCT CODE PRODUCT NAME FG GRANULES - #11 STANDARD RECOVERY

ISSUED DATE 4/26/73
REV.
SUPERSEDES: 1/1/71

CODE	MATERIAL	STD. PER TON	%
	Shale	3835.0	99.57
	Slate Oil	16.5	.43
	Total Gross	3851.5	100.00
	Slate Recovery	2000.0	52.15
	Filler and Fines Recovery	633.0	16.51
	Waste	1202.0	31.34
	Total Recovery (Granules, Filler, Fines)		68.66

Slate oil - Viscosity 200 @ 100°F Flash 360 min.

RCD Operating Speed 25.0 Tons/Hour Production Crew Size Unit

Col :

BIRD 005655

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA.

MACHINE #

ISSUED DATE 4/26/73

REV.

PRODUCT CODE

PRODUCT NAME #11 GLENWOOD BLACK GRANULES

SUPERSEDES: 1/1/69

CODE	TYLER STANDARD SCREENS	PER CENT Min.	Std.	Max.
	Retained on #8 Mesh Screen	0.0	0.0	0.0
	Retained on #10 Mesh Screen	1.0	3.5	7.0
	Retained on #14 Mesh Screen	30.0	35.0	40.0
	Retained on #20 Mesh Screen	30.0	35.0	40.0
	Retained on #28 Mesh Screen	15.0	19.0	25.0
	Retained on #35 Mesh Screen	2.0	4.5	7.0
	Pass #35 Mesh Screen	0.0	1.0	2.0

These granules shall be uniform in shipment. No shipment shall show a wide variation from the above specification.

% Moisture - - - - 0.5% Max.

To be uniformly oiled with slate oil 18# per ton of granules.

G. 100 Wt./cu.ft. 80.0#

Filler - wt/cu ft. - 68 to 70#

Gradings 50% thru 200 mesh

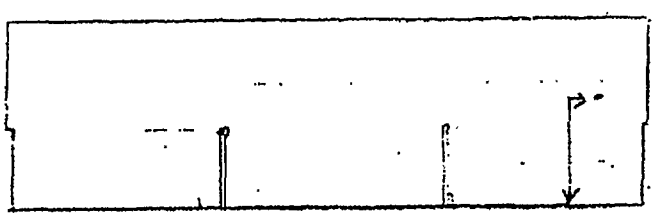
RCD Operating Speed

Production Crew Size

Unit

COI :

YEAR	HORIZONTAL	INCHES
89	-	7
90	-	7½
91	-	8
92	-	8½
93	-	9
94	-	9½
95	-	10
96	-	10½
97	-	11



approx 3" in from trailing end:

Measure from bottom edge of stringer to laying mark.

BIRD 005668

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA. MACHINE #

ISSUED DATE 4/26/73
REV.

PRODUCT CODE PRODUCT NAME WASTE ALLOWANCES FOR COMPUTING GROSS WEIGHTS

SUPERSEDES: 1/1/71

CODE	MATERIAL	ALL PRODUCTS %	
	Felt - Std. Air Dry Wt.	6.0 + 5.5% Moisture (11.5%)	
	Saturation	3.0	Raw
	Coating	3.0	—
	Filler	3.0	—
	Base Slate for T. B.	5.0	7.0
	Colored Slate for T. B.	10.0	
	Slate for All Other Products	7.0	
	Glenwood Fines	10.0	
	#36 Talc, Backing for Shingles, and Mineral Surfaced Rolls	70.0	—
	#36 Talc, Smooth Surfaced Roofing	10.0	—
	#37 Talc	8.5	
	Wind Seal Adhesive	0.0	
	Anti-Stick (Wind Seals)	0.0	

RCD Operating Speed Production Crew Size Unit

Co[illegible]:

BIRD 005717

BIRD 005718

HOUSTON CHEMICAL PLANT
P. O. BOX 5597, HOUSTON, TEXAS 77012

QUALITY REPORT OF LATEX SHIPMENTS

Shipped To:

BIRD & SONS, INC

AERO DRIVE P O Box 72

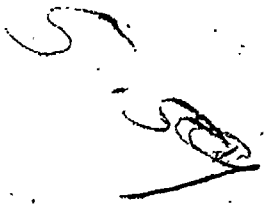
SHREVEPORT, LA 71161

Date Shipped 10/30/79

Type		5812
Code		213-8-9
Car No.		10 ■ drums
Order No.		152045
1. Solids	%	70.3
2. Residual Styrene	%	.016
3. pH		9.8
4. Surface Tension @ 40% TSC Dynes./CM.		34
5. Spindle ____ RPM ____ Viscosity (As Shipped)	CP.	1360
6. Spindle ____ RPM ____ Viscosity @ 60% TSC	CP.	
7. Viscosity @ 60% TSC	CP.	
8. Mooney Viscosity	ML-4	118.
9. Bound Styrene	%	24.0
10. Coagulum	%	.002
11. Stability	MG	
12. Loading Temperature °F		91°
13.		
14.		
15.		
Specifications	Pounds	3164

cc:

LABORATORY



PRODUCT SPECIFICATIONS

ISSUED DATE ~~4/24/73~~ 1/1/84

DIVISION SHREVEPORT, LA. MACHINE # 3 REV: ~~1~~

PRODUCT CODE ~~07-00-016~~ 07-07-000 PRODUCT NAME ~~[redacted]~~ HEAVY DUTY ASPHALT FELT - 216 SQ. FT./ROLL

SUPERSEDES: ~~[redacted]~~

DESCRIPTION: Material run on FSPM-3

CODE	RAW MATERIAL DESCRIPTION	MATERIALS PER ROLL NET WEIGHT	MATERIALS PER ROLL GROSS WEIGHT	NET PER 100 Sq. Feet
	Materials Per 216 sq. ft.			
~~[redacted]~~ 6001045	Felt - ~~50#~~ x ~~6~~" 45"x36"	~~[redacted]~~ 20.0	~~[redacted]~~ 22.3	~~10.0~~ 9.3
15375	Saturation - #11 Flux - ~~[redacted]~~ 145%	~~36.5~~ 28.9	~~37.6~~ 29.8	~~16.9~~ 13.4
	Weight per 216 sq. ft.	~~50.5~~ 48.9		
	Finishing Materials	.1		
	Shipping Weight 42.0#	~~60.0~~ 49.0		
	Variation in Shipping Wt. - Min.-~~56.0~~# Max.-~~64.0~~# 52.0#			

Aluminum Guide Lines - 2", 17", 19", 34" from each side. Lines applied on Dry Felt DSPM-~~2~~ 2

Length of Rolls - 72'-0". No extra allowance for two piece rolls. All two piece rolls must bear label stating that roll is two pieces.

FINISHING MATERIALS: 1 pc. 6" x 38" Kraft Strip with green printing.

H.B. FULLER N.L. 3885 ~~Starch Paste~~ - .03# 22.7#

Wt. of Sheet per 100 Sq. Ft. - ~~25.0~~# Min.

PCD Operating Speed ~~140~~ 430 Rolls/Hour Production Crew Size ~~7~~ 6 Unit ROLL

Colors:

BIRD 005723

ASPHALT

WINDSEAL – JET BLENDS

BIRD 005725

MEMORANDUM SHREVEPORT

From

Date

6	12"	18"	18"	33"
SPILL	NO. 1	SPILL	#3	SPILL

No 9 Blender

88" Repeat

T. B. – Blender – 88" Cycle

Sequence – 3-2-1

#1 – Band – 11"
Spill – 11½"

#2 – Band – 22"
Spill – 22½"

#3 – Band – 15¾"
Spill – 5¼"

No 14

No 9

SAME CYCLE AS OF 8-2-82

BIRD 005726

DRAKE 50M 11-74

MEMORANDUM
SHREVEPORT

In Reply to _____ Date 7-16-75 From _____ To _____

Subject % Slate per square TB Band

#1 band – multiply by 1

#2 band – " " 2

#3 band – " " 1.45

Divide by 4.45 — the sum of all bands

BIRD 005727

MEMORANDUM
SHREVEPORT

In Reply to _____ Date 5-7-84 From _____ To _____

Subject Test #1 - Granules - Windrow 48 mesh screen

Lane 1 Base slate - 28.32 lbs/sq (15% 3M)	Lane 1 Exposed = 36.44 lbs/sq
Lane 2 Base slate - 38.77 lbs/sq (20% 3M)	Lane 2 Exposed = 36.22 lbs/sq
Lane 3 Base slate - 36.41 lbs/sq (35% 3M)	Lane 3 Exposed = 36.67 lbs/sq
Lane 4 Base slate - 29.95 lbs/sq (8% 3M)	Lane 4 Exposed = 38.96 lbs/sq
ave wt/sq = 33.36 pounds (19.5% 3M) 3M - 6.50 pounds Glenwood - 26.86 pounds	ave wt/sq = 37.07 pounds (100% 3M)

MEMORANDUM
SHREVEPORT

In Reply to _____ Date 5-8-84 From _____ To _____

Subject Test # 2 Granules - Windrow 48 mph

Lane 1 Base slate = 27.85 lbs/sq (15% 3M)	Lane 1 Exposed = 43.31 lbs/sq
Lane 2 Base slate = 33.57 lbs/sq (75% 3M)	Lane 2 Exposed = 37.81 lbs/sq
Lane 3 Base slate = 32.28 lbs/sq (15% 3M)	Lane 3 Exposed = 41.02 lbs/sq
Lane 4 Base slate = 24.28 lbs/sq (5% 3M)	Lane 4 Exposed = 43.31 lbs/sq
ave wt/sq = 29.50 pounds (15.0% 3M) 3M - 4.43 pounds Glenwood - 25.07 pounds.	ave wt/sq = 41.36 pounds (100% 3M)

BIRD 005729

2.40
1.20
1.19.6

MEMORANDUM
SHREVEPORT

In Reply to _____ Date 5-31-84 From _____ To _____

Subject Test #5 Granule study F5 - Wood Blend

1 Base - 33.34 lbs/sq - 3M - 11.67 lbs/sq Glenwood - 21.67 lbs/sq	1 - Exposed - all 3M 37.51 lbs/sq
2 - Base - 37.23 lbs/sq 3M - 11.29 lbs/sq Glenwood - 20.94 lbs/sq.	2 - Exposed all 3M 36.55 lbs/sq
3 Base - 35.28 lbs/sq - 3M - 19.42 lbs/sq Glenwood - 15.86 lbs/sq	3 Exposed all 3M 37.25 lbs/sq
4 Base - 25.46 lbs/sq 3M - 2.56 lbs/sq Glenwood - 22.90 lbs/sq	4 Exposed all 3M 39.80 lbs/sq
31.57 lbs/sq of Base granules of these 11.24 lbs are 3M granules 20.33 lbs are Glenwood	ave 3M Granules on Exposed is 37.78 lbs/sq -
Total use of Granules is 69.35 lbs/sq - 49.02 lbs of 3M + 20.33 lbs of Glenwood	

BIRD 005730

Pounds of Growth/sq -

MEMORANDUM
SHREVEPORT

In Reply to _____ Date 5-12-84 From _____ To _____

Subject Test # 4 Granule study - Five screen Movie Black

Lane 1 Base 30.06 lbs/sq	Lane 1 Exposed 43.34 lbs/sq
Lane 2 Base 30.79 lbs/sq	Lane 2 Exposed 41.10 lbs/sq
Lane 3 Base 34.61 lbs/sq	Lane 3 Exposed 34.96 lbs/sq
Lane 4 Base 29.99 lbs/sq	Lane 4 Exposed 36.67 lbs/sq

BIRD 005731

Net (100)

FM — talc — 1.7
(35 / 65) gran — 32.7

24.1
56.3
80.4

Wil same.

22.5
52.6
75.1

80.4
75.1
15.3

Pratt 0.9 talc
32.7 granule

FB - 0.8 talc
70/30 34.0 gran

FK 0.8
31.3

70/30

Roll Goods.
BLENDES

MEMORANDUM

To: Regional Director, Region 2, Albuquerque, New Mexico

From: Project Leader, Bird Research Laboratory, Patuxent Wildlife Research Center, Laurel, Maryland

Subject: Report of Survey of Banding Stations in Region 2

Date: October 13, 1970

I left Washington, D.C. on Monday, September 28, 1970 and returned on Saturday, October 10. I visited the following banding stations:

1. Bosque del Apache National Wildlife Refuge, New Mexico
2. Private banding station, Socorro, New Mexico
3. Private banding station, Albuquerque, New Mexico
4. Private banding station, Albuquerque, New Mexico
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6. Private banding station, Albuquerque, New Mexico
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99. Private banding station, Albuquerque, New Mexico
100. Private banding station, Albuquerque, New Mexico

BIRD 005734

IOM 12-84 D1570

MEMORANDUM
SHREVEPORT

In Reply to _____ Date _____ From _____ To _____

REPEAT - 5¼" AND 360°

1" = 6.667°

1° = 0.15"

BIRD 005735

BIRD 005736

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA. MACHINE # 10

ISSUED DATE

REV.

PRODUCT CODE PRODUCT NAME T.B. Blender – 88" cycle

SUPERSEDES:

CODE

Length of Band	Hopper
11	1
11½	Spill
22	2
22½	Spill
15¾	3
5¼	Spill

order of operation

3 – 2 – 1

RCD Operating Speed Production Crew Size Unit

Cole :

BIRD 005737

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA. MACHINE # 10

ISSUED DATE

REV.

PRODUCT CODE PRODUCT NAME Base Blender - 54" cycle

SUPERSEDES:

CODE

	Length of Band	Hopper
SETTINS 1-11-8 ✓	11	1
No - 3 0°-73°	8	Spill
No - 2 80°-153°	11	2
No - 1 160°-233°	8	Spill
	11	3
	5	Spill

order of operation

3 - 2 - 1

RC's Operating Speed Production Crew Size Unit

Col. :

PRODUCT SPECIFICATIONS

DIVISION SHREVEPORT, LA. MACHINE #

REV: 1-3-77

PRODUCT CODE 06-11=000 PRODUCT NAME #23 WIND SEAL SHINGLES

SUPERCEDES: 4-26-73

SIZE: 12" x 36", Cut-outs 5" x ~~3/8"~~ 1/4", Headlap - 2". Double Surfaced Portion - 6.144" x 36". Sq. Ft. Material per Sq. + Gross - 240.0; Net - ~~236.9~~ 237.4 Shingles per Sq. - 80 Per Bdle. - 27, 27, 26, Net Wt. per Sq. 233.8. Net Wt. per Bdle. - ~~77.9~~ 79.2. Wind Seal dots applied 6 3/4" from butt of shingle, minimum dots size 1" length x 3/4" width, 9 dots per shingle, maximum spacing 4" on center. Rubars Anti-Stick applied in 4" bands down center of back shingle.

NOTE: This Standard for use when shingles wrapped on new automatic wrapping machine.

CODE	RAW MATERIALS PER SQ. DESCRIPTION	MATERIALS PER SQUARE NET WEIGHT	GROSS WEIGHT	NET PER 100 Sq. Feet
	Base: 240 Sq. Ft.			
28800	Felt - 55# x 48"	~~27.1~~ 27.0	30.3	11.3
15400	Saturation - #14-½ - 175%	~~47.3~~ 47.2	~~48.7~~ 48.6	19.7
14200	Coating - #21- ½	~~24.5~~ 24.3	~~25.2~~ 25.0	~~10.2~~ 10.1
56200	Filler - 53%	~~27.8~~ 27.5	~~28.6~~ 28.3	~~11.6~~ 11.5
56406	Surfacing - #11 Base Glenwood-Oiled	52.0	54.6	21.7
59050	Backing - Talc Pioneer 36	2.0	3.4	0.8
12150	Wind Seal Adhesive	1.8	1.8	0.8
56675	Bradford Flakes	0.2	~~0.3~~ 0.2	0.1
	TOTAL - Gross Wt. per 240 Sq. Ft.	~~182.7~~ 182.0	~~192.9~~ 192.2	~~76.2~~ 76.0
	Overlay: 122.5 Sq. Ft.			
T4200	Coating - #21- ½	~~10.4~~ 10.1	~~10.7~~ 10.4	~~8.5~~ 8.2
56200	Filler - 53%	~~11.6~~ 11.4	~~11.9~~ 11.7	~~9.5~~ 9.3
56150	Surfacing - Colored #11 Oiled	33.0	36.3	26.9
	TOTAL - Gross Wt. - 240 Sq. Ft.	~~237.7~~ 236.5	~~251.8~~ 250.6	~~121.1~~ 120.4
	Less Cut-outs - ~~3.1~~ Sq. Ft. 2.1 sq. ft.	~~3.7~~ 2.5	~~4.0~~	
	Net Weight	234.0	~~247.8~~	119.5
	Finishing Materials	1.0		
	Shipping Weight	235.0		

FINISHING MATERIALS: Variation in Shipping Wt. - Max. (27 Ct.) - 82.0#; Min. (26 Ct.) - 75.0#. Each bundle wrapped with one Kraft wrap-around printed 80# Kraft wrapper - 35.8" repeat 42¼" width, top flap and ends glued. Wrapper 1 color - Green on Kraft. Wrapper Wt. 1.0# per Sq. - (Glue Ends Only) - 0.015#/Sq. Adhesive - No. ~~3950~~ 3945, H. B. Fuller & Co. Top Glued with Asphalt Flux 0.1#/Sq. Underwriters' Label - 1 - Class C Shingles Wind Resistant - 1962 Standard - Printed on as wrapper is glued.

RCD OPERATING SPEED 450 Sq./Hour PRODUCTION CREW SIZE 16 UNIT Square

COLORS: Black, Colonial Green, Dawn Mist, Desert Brown, Flint Blende, Meadow Mist, Snow White, Wood, Blende, Moire Black, Gray, Shadow Blde., Brown Blde, Slate Blde, Russet Glo, Brite Red (SEE REVERSE SIDE)

BIRD 005744