PLAINTIFF'S EXHIBIT

BIR-990

DRAKE 50M 10-81

MEMORANDUM
SHREVEPORT

In Reply to _____ Date 12-9-81 From PSL-Ladner To F. Clark - BBQ

Subject STANDARD CARDS

11 cards 12-11-81 RSOE
12-21-81 FS
1-6-82

Attached are the new standard cards.

10 cards of each is needed. (includes our 4 cards)

ordered 12
my records show 8 for PSL
4 " Cls.

POLL

POLL/ew
Attach.

Arch 80 Beechwood
Mark 80 Slate Bld, Sand Blk, Aspen, Cinn Brown, Rustic Brown
Jet 80 Hip Ridge
Mark 80 Hip Ridge
Arch 80
Jet 80
Mark 80

DIVISION SHREVEPORT, LA.

PRODUCT CODE

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

ISSUED DATE 12-7-81
REV.

DESCRIPTION: Size 36" Long 11 3/4" 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# std 72.8#

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%	72.5	74.7	30.2
56406	#11 Headlap Granules 30	22.5	24.1	9.4
56150	#11 Colored Granules 70	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
	Finishing Materials	1.0		
	Shipping Wt.	216.8		

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 & Black.

RCD OPERATING SPEED 380 PRODUCTION CREW SIZE 16 UNIT Square

COLORS: Acorn, Adoge, Brown Bld., Desert Brown, Mahogany, Moire Black, White, Wood Bld.

BIRD 014477

DIVISION SHREVEPORT, LA.

PRODUCT CODE

PRODUCT SPECIFICATIONS
MACHINE # 10
PRODUCT NAME MARK 80
#9 Granule

ISSUED DATE 12-7-8
REV.

Size
DESCRIPTION: 36" long 11 3/4 to 12 1/4" wide staggered butt. Black Shadow line applied 2" wide 4"-4 1/2" up from wide part of butt edge. 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. 4 Blds. 20/per Bld. Min Wt. per Bld. 20 shlgs. 61.8# std. 65.2#

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	68.7	70.8	28.6
56200	Filler 55%	83.9	86.4	35.0
	#9 Granules	99.6	106.6	41.5
59050	#36 Talc	2.0	3.4	0.8
12150	Wind Seal Adhesive	1.8	1.8	--
56675	Anti-Stick	0.2	0.2	--
		261.0	274.3	107.9
	Finishing Materials	1.3		
	Shipping Wt.	262.3		

FINISHING MATERIALS: Kraft Wrap glued top flaps and ends. Wrapper wt. 0.9#/sq. Adhesive top flap #14 asphalt .02# s ends glued H.B. fuller No. 3950. Width of wrap 42¼" Repeat 35.8". Underwriter Class A Wind Resistant label stamped on each Bld. wrapper color Orange & Black.

RCD OPERATING SPEED 325 **PRODUCTION CREW SIZE** 16 **UNIT** Square

COLORS: Acorn, Sable Black, Rustic Brown, Cinnamon Brown, Slate Bld.

BIRD 014478

DIVISION SHREVEPORT, LA.

PRODUCT CODE

PRODUCT SPECIFICATIONS
MACHINE #
PRODUCT NAME ARCHITECT - 80 SHINGLE
Component #1

ISSUED DATE 12-7-81
REV.

DESCRIPTION: 12"x36"-(Overall 36-7/16"). Top 5" of shingle at end off-set 7/16". No cut-outs. Exposure 5". #1 components single layer. (No Thick-Butt portion). Shingles per sq.-80, per bundle-16, 5 bdls. per sq. Wind Seal Adhesive in form of dots applied @ 6-1/8" center from top of shingle. Dots minimum size is 1" length x 3/4" width 9 dots per shingle spacing is maximum 4" on centers, min. ave. height of .025" above surface of shingle. Bradford Flakes anti-stick applied in 2" bands on back down center line of overlying adhesive dots. Upper 6" of each shingle surfaced with Glenwood Granules.

	RAW MATERIALS	MATERIALS PER SQ.		
CODE:	DESCRIPTION	NET WEIGHT	GROSS WEIGHT	NET# PER 100 SQ. FT.
	Materials Per 195.0 sq. ft.			
29610	Glass Mat	3.9#	4.1#	2.0#
14200	Coating Asphalt(21½)	33.0	54.6	27.2
56200	Filler (55%)	64.9	66.8	33.3
56150	#11 Granule	61.1	65.4	31.3
59050	#36 Talc	1.6	2.8	0.8
12150	Wind Seal Adhesive	1.6	1.6	0.8
56675	Anti-Stick	0.2	0.2	0.1
		186.3	195.5	95.5#

FINISHING MATERIALS: 4 Plain 80 & Kraft Wrappers per sq. (20 shlgs. per bld.) Size 35.8"x42¼" 0.3# per bld.

RCD OPERATING SPEED _____ PRODUCTION CREW SIZE 20 UNIT Square

COLORS: _____

BIRD 014479

DIVISION SHREVEPORT, LA.

PRODUCT CODE

PRODUCT SPECIFICATIONS
MACHINE #
PRODUCT NAME ARCHITECT 80 SHINGLE

ISSUED DATE 12-7-81
REV.

Component #2

DESCRIPTION:

CODE:	RAW MATERIALS DESCRIPTION	MATERIALS PER SQ. NET WEIGHT	GROSS WEIGHT	NET# PER 100 SQ. FT.
	Materials Per 195.0 sq. ft.			
29610	Glass Mat	2.4	3.8	2.0
14200	Coating Asphalt (21⅛)	19.1	19.6	15.8
56200	Filler (55%)	23.3	23.9	19.4
56150	#11 Granules	24.4	25.1	20.4
59050	#36 Talc	1.0	1.7	0.8
56675	Anti-Stick	0.1	0.1	0.1
		70.3	74.2	58.5
	Over Lay			
	Coating Asphalt	18.0#	18.5	15.0
	Filler (55%)	22.1	22.8	18.4
	#11 Granules	21.0	22.5	17.5
		61.1#	63.8	50.9

COMBINING

FINISHING: Combining of Component #1 and Component #2		
WITCO Chemical Adhesive	2.3#	
Combining Labor: 5 Men/2 Line Assembly Operation		
Finishing Materials: (Corrugated Wrappers, Tying Wire)	5.0#	
Shipping Wt.	325.0	

FINISHING MATERIALS: 5 Corrugated wrappers-125# Test-36½" x 37½", Printed 1 color. Wrappers to have corrugations running 36½" length. To be scored along 36½" Length, 4½",8¼",21¼",25", to give 12½" lap of wrap on top of package. Wrappers to have Underwriters' Class A shingles, Wind Resistant, Label printed on each wrapper.

NOTE: A 2% Material loss occurs during combining; Requires 102 of each component for 100 Finished Shingles.

RCD. OPERATING SPEED _____ PRODUCTION CREW SIZE 9 UNIT Square

COLORS: _____

BIRD 014480

DIVISION SHREVEPORT, LA.

PRODUCT CODE

PRODUCT SPECIFICATIONS
MACHINE #
PRODUCT NAME Shade Mixture No. 9 Granules
Mark 80 Cinnamon Brown

ISSUED DATE 12-7-81
REV.

CODE:	HOPPER NO.	%	KIND OF SLATE		
	1	55	3M	4609	Tan
		35	3M	4109	Brown
		10	Char.	KR-11	Red
	2	15	3M	4609	Tan
		75	3M	4109	Brown
		10	Char.	KR-11	Red
	3	80	3M	4109	Brown
		20	Char.	KR-11	Red
	4 Spill Over				
	Shadow Line	100	3M	5109	Black

% SLATE PER SQ.	
3M 4609 Tan	23.3
3M 4109 Brown	63.3
Char. KR-11 Red	13.4

RCD OPERATING SPEED_____ **PRODUCTION CREW SIZE**_____ **UNIT**_____

COLORS:_____

BIRD 014481

DIVISION SHREVEPORT LA.

PRODUCT CODE

PRODUCT SPECIFICATIONS
MACHINE # 10
PRODUCT NAME Jet 80 Hip & Ridge
No. 11 Granules

ISSUED DATE 12-7-81
REV.

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#	1.7#	2.0#
14200	Coating Asphalt	20.4	21.0	25.2
56200	Filler 55%	24.9	25.6	30.7
56150	No. 11 Granule	25.3	27.1	31.2
59050	#36 Talc	0.7	1.2	0.9
	Wt/Per 81 Sq. Ft.	72.9	76.6#	90.0#
	Finishing Materials	0.3		
	Shipping Wt.	73.2		
	Variation in Shipping Wt.	Max 74.0#	Min. 68.8#	
	No Underwriter Label			

RCD OPERATING SPEED _____ PRODUCTION CREW SIZE 16 UNIT BLD.

COLORS: Spillover Color Acorn, Adobe, Mohogany, Moire Black, White, Wood Bld., Granite Gray

BIRD 014482

DIVISION SHREVEPORT LA.

PRODUCT CODE

PRODUCT SPECIFICATIONS
MACHINE #
PRODUCT NAME Mark 80 Hip & Ridge
No. 9 Granule

ISSUED DATE 12-7-81
REV.

DESCRIPTION: Size 9"x12", these shlgs. cut 12"x36" with a row of perforations across the shlgs at 9", 18", 27", so when separated at perforations there will be 4-9"x12" shlgs. Shlgs. per Bld. - 88: Sq. Ft. matl. per Bld. 66 each Bld. Each Bld covers 36.6 lineal ft. of Hip & Ridge.

CODE:	MATERIALS: Per Bld. 66 Sq. Ft.	NET#	GROSS#	NET# PER 100 SQ. FT.
29610	Glass Mat	1.3#	2.1#	2.0#
14200	Coating Asphalt (No. 21)	18.9	19.5	28.6
56200	Filler (55%)	23.1	23.8	35.0
	No. 9 Granules	27.4	29.3	41.5
59050	#36 Talc	0.5	0.8	0.8
		71.2	75.5	107.9
	Wt. Per 66 Sq. Ft.	71.2		
	Finishing Materials	0.3		
	Shipping Wt.	71.5		
	Variation in Shipping Wt. Max	72.0#	Min.	68.0#
	No Underwriter label			

RCD OPERATING SPEED _____ PRODUCTION CREW SIZE 16 UNIT BLD.

COLORS: Spillover Colors - Acorn, Rustic Brown, Sable Black, Cinnamon Brown, Slate Bld.

BIRD 014483

DIVISION SHREVEPORT, LA.

PRODUCT CODE

PRODUCT SPECIFICATIONS

MACHINE # 10

PRODUCT NAME Shade Mixture No. 9 Granules
Mark 80 Acorn

ISSUED DATE 12 7 8

REV.

CODE:	HOPPER NO.	%	KIND OF SLATE
	1	10	3M 6809 Buff
		10	3M 7609 Gray
		80	3M 1209 Olive
	2	20	3M 5309 Black
		25	3M 4109 Brown
		55	3M 1209 Olive
	3	30	3M 4109 Brown
		70	3M 1209 Olive
	4 Spill Over		
	Shadow Line	100	3M 5109 Black

% SLATE PER SQ.	
3M 6809 Buff	3.3
3M 7609 Gray	3.3
3M 1209 Olive	68.4
3M 5309 Black	6.7
3M 4109 Brown	18.3

RCD OPERATING SPEED_____ **PRODUCTION CREW SIZE**_____ **UNIT**_____

COLORS:_____

BIRD 014484

DIVISION SHREVEPORT, LA.

PRODUCT CODE

PRODUCT SPECIFICATIONS
MACHINE #
PRODUCT NAME Shade Mixtures No. 9 Granules
Mark 80 Rustic Brown

ISSUED DATE 12-7-8
REV.

CODE:	HOPPER NO.	%	KIND OF SLATE
	1	90	3M 4109 Brown
		10	3M 5109 Black
	2	70	3M 4109 Brown
		30	3M 5109 Brown
	3	50	3M 4109 Brown
		50	3M 5109 Black
	4 Spill Over		
	Shadow Line	100	3M 5109 Black

% SLATE PER SQUARE

3M 4109 BROWN	70.0
3M 5109 BLACK	30.0

RCD OPERATING SPEED_____ **PRODUCTION CREW SIZE**_____ **UNIT**_____

COLORS:_____

BIRD 014485

DIVISION SHREVEPORT, LA.

PRODUCT CODE

PRODUCT SPECIFICATIONS
MACHINE # 10 Shade Mixture No. 9 Granules
PRODUCT NAME Mark 80 Sable Black

ISSUED DATE 12-7-81
REV.

CODE:	HOPPER NO.	%	KIND OF SLATE
	1	70	3M 5109 Black
		30	3M 5309 Black
	2	90	3M 5109 Black
		10	3M 5309 Black
	3	90	3M 5109 Black
		10	3M 5309 Black
	4	SPILLOVER	
	Shadow Line 100		

% Slate Per Square

3M	5109	Black	83.3
3M	5309	Black	16.7

RCD OPERATING SPEED_____ PRODUCTION CREW SIZE_____ UNIT_____

COLORS:_____

BIRD 014486

DIVISION SHREVEPORT, LA.

PRODUCT CODE

PRODUCT SPECIFICATIONS
MACHINE # Shade Mixture NO. 9 Granules
PRODUCT NAME Mark 80 Slate Bld.

ISSUED DATE 12-7-81
REV.

CODE:	HOPPER NO.	%	KIND OF SLATE		
	1	40	3M	5109	Black
		20	Char	KR-11	Red
		40	3M	7609	Gray
	2	40	3M	5109	Black
		5	Char	KR-11	Red
		55	3M	7609	Gray
	3	60	3M	5109	Black
		5	Char	KR-11	Red
		35	3M	7609	Gray
	4	SPILLOVER			
	Shadow Line 100		3M	5109	Black

% Slate Per Square

3M	5109	Black	46.7
Char	KR-11	Red	10.0
3M	7609	Gray	43,3

RCD OPERATING SPEED_____ PRODUCTION CREW SIZE_____ UNIT_____

COLORS:_____

BIRD 014487

DIVISION SHREVEPORT, LA

PRODUCT CODE

PRODUCT SPECIFICATIONS
MACHINE # 10 Shade Mixture #11 Granules
PRODUCT NAME Arch 80 Beechwood
#1 Comp.

ISSUED DATE 12-7-81
REV.

CODE:	HOPPER NO.	%	KIND OF SLATE
	1	25	3M 55 Gray
		40	3M 41 Brown
		25	3M 12 Olive
		10	3M 76 Gray
	2	65	3M 55 Gray
		30	3M 76 Gray
	3	85	3M 76 Gray
		15	3M 55 Gray
	4 SPILLOVER		

%	Slate		Per Sq.
3M	55	Gray	35.0
3M	41	Brown	13.4
3M	12	Olive	8.3
3M	76	Gray	43.3

RCD OPERATING SPEED_____ PRODUCTION CREW SIZE_____ UNIT_____

COLORS:_____

BIRD 014488

DIVISION SHREVEPORT, LA.

PRODUCT CODE

PRODUCT SPECIFICATIONS
MACHINE #10 Shade Mixture #11 Granules
PRODUCT NAME Arch 80 Beechwood
#2 Comp.

ISSUED DATE 12-7-81
REV.

CODE:	%	KIND OF SLATE
	65	3M 76 Gray
	15	3M 55 Gray
	10	3M 41 Brown
	10	3M 12 Olive

RCD OPERATING SPEED_____ PRODUCTION CREW SIZE_____ UNIT_____

COLORS:_____

BIRD 014489