

MANUFACTURING SPECIFICATIONS

WAUKEGAN

FACTORY

SHINGLE

DEPT.

PRODUCT:

TEXTURED PERMATONE SIDING
SHINGLES STYLES #105 & #109
(GRAIN ROLL)

SECTION 1

SPEC. NO.
RS-SS-4PAGE NO.
1

I. FORMULA

Standard Formula

Purch.Spec. or Code No.	Spec. No.	Ingredients	Weight	Percent
-	-	6D20 Fibre	300#	24.3%
-	Misc.1	*Shingle Scrap	309	25.0
P.S.61061	-	**Portland Cement (Standard)	376	30.5
P.S.61281	-	J.M. Special Silica Flour	250	20.2
	-	or		
P.S.61279	-	MM & AD Silica Flour		
Total			1235#	100.0%

Alternate Formula

Purch.Spec. or Code No.	Spec. No.	Ingredients	Weight	Percent
-	-	6D20 Fibre	200#	16.3%
-	Misc.1	*Wood Scrap (not scalped)	280	22.8
-	Misc.1	*Shingle Scrap (not scalped)	122	9.9
P.S.61061	-	**Portland Cement(Standard)	376	30.6
P.S.61281	-	J.M. Special Silica Flour	250	20.4
	-	or		
P.S.61279	-	MM & AD Silica Flour		
Total			1228#	100.0%

** Light Colored Standard Buffington Portland Cement (P.S.61063) is used in the manufacture of Silver Gray.

* The use of 25% scrap is the maximum permitted, but lesser quantities may be used when the supply is inadequate. It is necessary to avoid extreme variations in quantity of scrap used per batch.

NOTE: Up to 50# of wet machine droppings of the same material may be added to the above listed formulas.

Up to 50# of dust house dust may be added to the above listed formulas.

PLAINTIFF'S
EXHIBIT
JM-2471

MT-000504

X- INDICATES CHANGE - REASON:

To Show the use of the alternate formula.

AUTHORITY FOR CHANGE

See Mr. L.L.Liggett's letter of 9/18/46 to Mr. D.Bertoglian.

Foreman Manv. Ind.

FILE-HOLDERS

H.Thompson Factory Eng.

BLDG. Supt.

LOCAL COST DEPT.

RESEARCH DEPT.

GEN. I. & C. DEPT.

GEN. COST DEPT.

LOCAL I. & C. DEPT.

SUPERSEDES:

Part of page 1 of same Spec. issued 7/31/46.

DATE ISSUED

SEP 18 1946

MANUFACTURING SPECIFICATIONS

PRODUCT:

SECTION
NO. 1

SPEC. NO.

RS-30-4

WAUKESHA

FACTORY

SHINGLE

DEPT.

Textured Permatone Siding
Shingles Styles #105 & #108
(Grain Roll)

PAGE NO.

1

I. FORMULAPurch. Spec.
or Code No.

Ingredients

Weight

Percent

--	**6D20 Fibre	300#	24.3%
--	*Scrap (See Note)	309	25.0
P.S. 61061	***Portland Cement	376	30.5
P.S. 61281	J.M. Spec. Silica Flour	250	20.2
Total		1,235#	100.0%

*** Light Colored Standard Buffington Portland Cement is used in the manufacture of Silver Gray.

NOTE: Any scrap from either wood Product or Shingle Products (excluding dark scrap which is derived from full coverage slate surfaced Grain Roll Shingles, Air Cured Shingles, and Colored Flexboard) may be used alone, or in any combination.

*The use of 25% scrap is the maximum permitted, but lesser quantities may be used when the supply is inadequate. It is necessary to avoid extreme variations in quantity of scrap used per batch.

** 100# of Gray Reclaimed Fibre may be substituted as an alternate for 100# of 6D20 Fibre.

Up to 50% of wet machine droppings of the same material may be added to the above listed formula.

Up to 50% of dust house dust may be added to the above listed formula

BASE INGREDIENTS - MIXING PROCEDURE
USING BULK SILICA & CEMENT

Put the ingredients shown above into the bucket elevator hopper in the quantities and sequence as shown below:

Ingredients	Quantities
Fibre	1 Bag
Cement & Silica	626# Weighed in dump scale
Scrap	1 154-1/2# Wheelbarrow
Fibre	1 Bag
Scrap	1 154-1/2# Wheelbarrow
Fibre	1 Bag

NOTE: For charging procedure see page 2 of this Specification.

X- INDICATES
CHANGE - REASON:

To show the use of wet machine droppings and dust house dust in the formula.

AUTHORITY
FOR CHANGE

Omitted from previous revision of Specification

MT-000505

FILE-HOLDERS

Foreman Manv. Ind.
H. Thompson Factory Eng.

BLDG.
SUPT.

LOCAL COST
DEPT.

RESEARCH
DEPT.

GEN. MFG. C.
DEPT.

GEN. COST
DEPT.

LOCAL
I. & C. DEPT.

SUPERSEDES: Page 1 of same Spec. issued 6/10/46.

DATE ISSUED

JUL 31 1946

MANUFACTURING SPECIFICATIONS

PRODUCT:

SECTION
NO. 1

SPEC. NO.

Waukegan

FACTORY

Textured Permatone Siding
Shingles Styles #105 & #109
(Grain Roll)PS-56-4
PAGE NO.

Shingle

DEPT.

I. FORMULA

Standard Formula

Purch. Spec. or Code No.	Spec. No.	Ingredients	Weight	Percent
-	-	GD20 Fiber	3007	24.3%
-	Misc.1	*Shingle Scrap	309	25.0
PS 61061	-	**Portland Cement (Standard)	376	30.5
PS 61291	-	J.M. Special Silica Flour	250	20.2
PS 61279	-	or MM & AD Silica Flour		
Total			12354	100.0%

Alternate Formula

Purch. Spec. or Code No.	Spec. No.	Ingredients	Weight	Percent
-	-	GD20 Fiber	2007	23.9%
-	Misc.1	Whole {Reclaimed Fiber	93	
-		Wood Scrap {Scalped Scrap	187	
-	Misc.1	Shingle Scrap	122	25.1
PS 61061	-	Portland Cement (Standard)	376	30.5
PS 61279	-	MM & AD Silica Flour	250	20.3
PS 61281	-	or JM Special Silica Flour		
Total			12237	100.0%

*Light colored Standard Buffington Portland Cement (PS 61063) is used in the manufacture of Silver Gray.

*The use of 25% scrap is the maximum permitted, but lesser quantities may be used when the supply is inadequate. It is necessary to avoid extreme variations in quantity of scrap used per batch.

NOTE: Up to 50% of wet machine droppings of the same material may be added to the above listed formulas.

Up to 50% of dust house dust may be added to the above listed formulas.

MT-000503

X- INDICATES CHANGE — REASON: To show a breakdown of the percentages of scrap and fiber.

AUTHORITY FOR CHANGE: Mr. P. B. Proctor's letter of October 14, 1946.

FILE-HOLDERS

Forman Env. v.
H. Thompson Factory.

BLDG. SUPT.

LOCAL COST DEPT.

RESEARCH DEPT.

GEN. I. & C. DEPT.

GEN. COST DEPT.

LOCAL I. & C. DEPT.

SUPERSEDES:

Part of page 1 of same Spec. issued Sept. 18, 1946

DATE ISSUED

MAR 18 1947

MANUFACTURING SPECIFICATIONS

PRODUCT:

DIVISION BP

SPEC. NO.

Waukegan

PLANT

473
Textured Pormatone Siding
Shingles Styles #105 & #109
(Grain Roll)

PS-SS-4

PAGE NO.

Shingle

DEPT.

1

I. FORMULAStandard Formula

Purch. Spec. or Code No.	Spec. No.	Ingredients	Weight	Percent
-	-	6D20 Fiber	300#	19.5
-	Misc.1	*Shingle Scrap	470	30.5
PS 61061	-	**Portland Cement (Standard)	470	30.5
PS 61281	-	J.M. Special Silica Flour	300	19.5
PS 61279	-	MM & AD Silica Flour	Total 1540#	100.0

Alternate Formula

Purch. Spec. or Code No.	Spec. No.	Ingredients	Weight	Percent
-	-	6D20 Fiber	200#	23.9%
-	Misc.1	Whole {recycled fiber	93	
-	Misc.1	Good Scrap {scalped Scrap	187	
-	Misc.1	Shingle Scrap	122	25.1
PS 61061	-	Portland Cement (Standard)	376	30.5
PS 61279	-	MM & AD Silica Flour	250	20.3
PS 61281	-	JM Special Silica Flour	Total 1228#	100.0

*Light colored Standard Buffington Portland Cement (PS 61063) is used in the manufacture of Silver Gray.

*The use of 25% scrap is the maximum permitted, but lesser quantities may be used when the supply is inadequate. It is necessary to avoid extreme variations in quantity of scrap used per batch.

NOTE: Up to 50% of wet machine droppings of the same material may be added to the above listed formulas.

Up to 50% of dust house dust may be added to the above listed formulas.

X- INDICATES CHANGE - REASON: New formula, PP 492, Suppl. 1

AUTHORITY FOR CHANGE

Mr. E. R. Congdon's letter of June 7 & 17, 1948.

MT-000502

FILE HOLDERS	Manville	Waecker	Collins	Foreman	SUPR. QUAL. CONTROL	PROD. SUPY.	PLANT FINANCE OFFICE	RESEARCH LAB.	MGR. QUAL. CONTROL	DIR. QUAL. CONTROL
--------------	----------	---------	---------	---------	---------------------	-------------	----------------------	---------------	--------------------	--------------------

SUPERSEDES:

Page 1 of same spec. issued 3-18-47 & cancels Dev. 276.

DATE ISSUED

JUN 9 8 1948

MANUFACTURING SPECIFICATIONS

PRODUCT:

DIVISION BP

SPEC. NO.

RS-SS-4

PAGE NO.

1

WADKELAN PLANTSHINGLE DEPT.Textured Permatone Siding Shingles
Styles #105 & #109 (Grain Roll)I. FORMULA

Purch. Spec. or Code No.	Spec. No.	Ingredients	Weight	Percent
-	-	6D20 Fibre	300#	20.0
-	Misc.1	*Shingle scrap	470	30.0
PS 61061	-	**Portland Cement (Standard)	470	30.0
PS 61281	-	J.M. Special Silica Flour <u>or</u>	300	20.0
PS 61279	-	BM & AD Silica Flour		
Totals			1540#	100.0%

* At least 78% (367 lbs. per batch) of the filler must be ground shingle scrap or its equivalent. Up to 22% (103 lbs. per batch) may be low cost mineral filler selected from the following group of materials: Mastic Sand, Limestone Dust, Limestone Aggregate, ground Trap Rock or Graystones. Other low cost fillers may be approved after adequate tests.

** Light colored Standard Buffington Portland Cement (PS 61063) is used in the manufacture of Silver Gray.

NOTE: Up to 50% of wet machine droppings of the same material may be added to the above listed formula.

Up to 50% of dust house dust may be added to the above listed formula.

X- INDICATES CHANGE - REASON: New formula, PP 492, Suppl. 1

AUTHORITY FOR CHANGE - Mr. J. R. Congdon's letters of June 7 and 17, 1948

MT-000501

FILE-HOLDERS	Foreman	Wascher	Collins	Manville	SUPR. QUAL. CONTROL	PROD. SUPT.	PLANT FINANCE OFFICE	RESEARCH LAB.	MGR. QUAL. CONTROL	DIR. QUAL. CONTR.
--------------	---------	---------	---------	----------	---------------------	-------------	----------------------	---------------	--------------------	-------------------

SUPERSEDES: Page 1 of same spec. issued 3-18-47 & cancels Dev. 383 dated 6/9/48.
Previous revision dated 6/28/48 not approved by L. J. Liggett.

DATE ISSUED

JUL 21 1948

MANUFACTURING SPECIFICATIONS

PRODUCT:

DIVISION BP

SPEC. NO.

RS-68-4WAUKESHA

PLANT

Textured Permatone Siding Shingles
Styles #105 & #109 (Grain Roll)

PAGE NO.

1

SHINGLE

DEPT.

I. FORMULA

Purch. Spec. or Code No.	Spec. No.	Ingredients	Weight	Percent
-	-	6D20 Fibre	300#	19.7
-	Misc.1	*Shingle scrap	450	29.6
PS 61061	-	**Portland Cement (Standard)	470	31.0
PS 61281	-	J.M. Special Silica Flour <u>or</u>	300	19.7
PS 61279	-	SM & AD Silica Flour		
Totals			1520#	100.0%

* At least 78% (351 lbs. per batch) of the filler must be ground shingle scrap or its equivalent. Up to 22% (99 lbs. per batch) may be low cost mineral filler selected from the following group of materials: Mastic Sand, Limestone Dust, Limestone Aggregate, ground Trap Rock or Graystone. Other low cost fillers may be approved after adequate tests.

** Light colored Standard Buffington Portland Cement (PS 61063) is used in the manufacture of Silver Gray.

NOTE: Up to 50% of wet machine droppings of the same material may be added to the above listed formula.

Up to 50% of dust house dust may be added to the above listed formula.

*Cancelled by spec
dated 10/29/48*

X- INDICATES CHANGE - REASON: New formula, PP 492, Suppl. 1

AUTHORITY FOR CHANGE - Mr. H. R. Congdon's verbal instruction of 8-24-48.

MT-000500

FILE HOLDERS	Foreman	Wascher	Collins	Manville	SUPR. QUAL. CONTROL	PROD. SUPT.	PLANT FINANCE OFFICE	RESEARCH LAB.	MGR. QUAL. CONTROL	DIR. QUAL. CONTR.
--------------	---------	---------	---------	----------	---------------------	-------------	----------------------	---------------	--------------------	-------------------

SUPERSEDES: Page 1 of same spec. issued 3-18-47 & cancels Dev. 388 dated 7-20-48 DATE ISSUED
Previous revision dated 7-20-48 not approved by L. L. Liggott. AUG 2 1948

EB mm
Perry
AS
Garnes

MANUFACTURING SPECIFICATIONS

WADSWORTH PLANT
SHORELINE DEPT.

PRODUCT:

Textured Permatone Siding Shingles
Styles #105 & #109 (Green Roll)

DIVISION 21

SPEC. NO.

MS-S 1-4

PAGE NO.

1

I. FORMULA

Purch.Spec. or Code No.	Spec. No.	Ingredients	Weight	Percent
-	-	6020 Fibre	300	19.7
-	Misc.1	*Shingle scrap	450	29.6
PS 61061	-	**Portland Cement (Standard)	470	31.0
PS 61281	-	J.M. Special Silica Flour or	300	19.7
PS 61279	-	M & AB Silica Flour		
Totals			1520	100.0%

* At least 78% (391 lbs. per batch) of the filler must be ground shingle scrap or its equivalent. Up to 22% (99 lbs. per batch) may be low cost mineral filler selected from the following group of materials: Mastic Sand, Limestone Dust, Limestone Aggregate, ground Trap Rock or Graystone. Other low cost fillers may be approved after adequate tests.

** Light colored Standard Luffington Portland Cement (PS 61061) is used in the manufacture of Silver Gray.

X NOTE: (a) Up to 4.9% of wet machine droppings of the same material may be added to the above formula. The wet droppings are to be charged in even proportions to the batch and over a definite period of time, so as not to affect the color or other characteristics of the product.

(b) Up to 50% of dust house dust may be added to the above listed formula.

Mr. J. R. 2-5-51
9/2/49

X- INDICATES CHANGE - REASON: Change of and addition to Note (a).

M

AUTHORITY FOR CHANGE - Mr. H. R. Congdon's letter of 10-20-48.

MT-000499

FILE-HOLDERS	Foreman	Antonson	Collins	Manville	SUPR. QUAL. CONTROL	PROD. SUPT.	PLANT FINANCE OFFICE	RESEARCH	MGR. QUAL. CONTROL	DIR. QUAL. CONTROL
--------------	---------	----------	---------	----------	---------------------	-------------	----------------------	----------	--------------------	--------------------

SUPERSEDES: Page 1 of same spec. issued 8-26-48 & cancels Dev. 405 dated 8-26-48. DATE ISSUED

OCT 29 1948

COPY FORM

INITIALS

DATE

11/23/2000

BOX NUMBER

SEGMENT NO.

REQUESTING PARTY

P-462

Baron & Budd

NOTES

MT-000467