

FORMULA RECORD

Goods ' Base Cost

Formula No. 7-1851-B

Consistency. Limited

Date 2-23-35

Laboratory No.

For Use on

Cost Classification

Code Number	One Gallon Batch				Ga
	Pints	Lbs.	Ozs.	Gals.	L
Z-1	1				
Z-55	2				
K-507	3 $\frac{1}{2}$				
K-523	2 $\frac{1}{2}$				
B-43	1 $\frac{1}{2}$				
K-104		5)	GRIND FINE		
K-92		1 $\frac{1}{2}$)	"A" Grind		
K-15		18)			
K-10		2 $\frac{1}{2}$)	"C" Grind		
K-11		1 $\frac{1}{2}$)			
CHANGED TO IMPROVE BRUSHING AND HIDING QUALITIES.					
Yield					

Even Distribution

Batch	Gallon Batch				Manufacturing Specifications
	Ozs.	Gals.	Lbs.	Ozs.	
					Grind
					Kind of Mill
					Strainer
					Weight per Gallon 14.2
					Light Baume Temp.
					Heavy Baume Temp.
					Viscosity 65-70" Temp. 80°F
					Viscosimeter
					Flash Point
					Is Agitator Required
					Remarks

Dec 4, 1951

N12404

GLD060646

FORMULA RECORD

Goods

Base Coat

Formula No.

Y1851C

Consistency

Liquid

Date 10/27/38

Laboratory No.

For Use on

Cost Classification

Code Number	One Gallon Batch			Gallon Batch			100 Gallon Batch			Manufacturing Specifications
	Pints	Lbs.	Ozs.	Cals.	Lbs.	Ozs.	Gals.	Lbs.	Ozs.	
01	1			Standard formula			10			Grind
065	3/4			fine mill - white			7 1/2			Kind of Mill
V507	3 1/2			fine mill			35			Strainer
V523	2 1/4						22 1/2			Weight per Gallon 4.2 #
590	1/2						5			Light Baume Temp.
										Heavy Baume Temp.
W104		5		Grind fine			400			Viscosity 5-70" Temp
W91		1 1/4					100			Viscosimeter
										Flash Point
W15		1 1/4					140			Is Agitator Required
W10		2 1/2		C Grind			200			Remarks
W11		1 1/4					100			JPW
Ch 180				18 lbs					12 lbs	
				Changed to overcome skinning						per Y1851C
Yield										

COST DEPARTMENT RECORD

Customer

Base Court (Temporary for use as Reader)
Date 3/6/89

Date: 2/16/67

Production: No.

Cost Classification:

Ingredient Code Number	Lab'y Formula	Large Batch		Do not write in these columns For Cost Department Use Only						Manufacturing Specifications	
		Pounds	Gallons								
W-107	4 1/2"	360								Grind	LIKE Y-B51-D
W-77	8 1/2"	420								Kind of Mill	
W-16	18"	64								Strainer	
W-70	.45"	76								Weight per Gallon	15"
W-11	1 3/16"	110								Light Boume	Temp
O-1	1 1/2"		12 1/2							Heavy Boume	Temp
O-65	1 1/2"		7 1/2							Viscosity	65"-70" Temp
V-557	2 7/8"		26 1/4							Viscosimeter	H.F. No.
S-43	7/8"		8 1/4							Flash Point	
H-513	2-		20							Is Agitator Required	
S-718	1-		5								
D-15	52cc		2							Formulator	S. Keth.
Yield CH-180	15cc		5 1/64								

GLD060642

FORMULA RECORD

Goods

Base Coat

Formula No.

X1851D

Consistency

Semi-d

Date 11/19/37

Laboratory No.

For Use on

Wood

Cost Classification

Code Number	One Gallon Batch			10/4 Gallon Batch			Gallon Batch			Manufacturing Specifications
	Pints	Lbs.	Ozs.	Gals.	Lbs.	Ozs.	Gals.	Lbs.	Ozs.	
101	1 1/4			12 1/2						Grind
105	7/4			7 1/2						Kind of Mill
1507	3 1/2	1.75		35						Strainer
15235	2	1.5		20						Weight per Gallon 14.34
48	1/2	1.5		5						Light Baume Temp.
100										Heavy Baume Temp.
10104		4 1/2		360						Viscosity Temp.
1013391		1 1/4		140						Viscosimeter
101516		1 1/4		140						Flash Point
10170		1 1/4		140						Is Agitator Required
10171		1 1/4		110						Remarks
				20						DPW
10180			1/2	5 1/2						See 11851E
Changed to comply with specification for										all taken
Federal Housing Administration										all taken
										all taken
Yield										

GLD060649

FORMULA RECORD

Goods

Base Coat White

Formula No.

74851D

Consistency

Liquid

Date

6/13/40

Laboratory No.

1

For Use on

Wood

Cost Classification

Code Number	One Gallon Batch			Gallon Batch			Gallon Batch			Manufacturing Specifications
	Pints	Lbs.	Ozs.	Gal.	Lbs.	Ozs.	Gal.	Lbs.	Ozs.	
<i>01</i>	<i>1 1/4</i>						<i>12 1/2</i>			Grind 1 2 - 3
<i>A65</i>	<i>3/4</i>						<i>7 1/2</i>			Kind of Mill
<i>V507</i>	<i>3 1/2</i>						<i>35</i>			Strainer
<i>V523</i>	<i>2</i>						<i>20</i>			Weight per Gallon <i>14.37</i>
<i>S48</i>	<i>1/2</i>						<i>5</i>			Light Baume Temp.
										Heavy Baume Temp.
<i>Grind 11/104</i>		<i>4</i>	<i>8</i>	<i>12</i>				<i>360</i>		Viscosity Temp.
<i>Grind 11/133</i>		<i>1</i>	<i>12</i>	<i>8</i>				<i>140</i>		Viscosimeter
								<i>140</i>		Flash Point
<i>11/15</i>		<i>1</i>	<i>12</i>					<i>140</i>		Is Agitator Required
<i>Grind 11/10</i>		<i>1</i>	<i>12</i>					<i>140</i>		Remarks
<i>11/11</i>		<i>1</i>	<i>6</i>					<i>110</i>		<i>J.P.W.</i>
<i>Ch 180</i>			<i>1/2</i>	<i>12</i>				<i>140</i>	<i>10 deg.</i>	
<i>DESTROY CARD DATED 11-15-39 BY CARL</i> <i>Wanted to have names of materials in analysis conform date of 6-15-46</i> <i>from H. H. labeling requirements</i>										
Yield										

FORMULA RECORD

Goods *Wash Oil Base Coat*

Formula No. *4-185129*

Consistency *Liquid*

Date *6-20-46*

Laboratory No.

For Use on

Cost Classification

Code Number	One Gallon Batch			Gallon Batch			Gallon Batch			Manufacturing Specification
	Pints	Lbs.	Ozs.	Gals.	Lbs.	Ozs.	Gals.	Lbs.	Ozs.	
<i>D-1</i>	<i>1 1/2</i>			<i>1 1/2</i>						Grind <i>2-5</i>
<i>D-15</i>	<i>3 1/2</i>			<i>3 1/2</i>			<i>Standard</i>			Kind of Mill <i>Public</i>
<i>V-557</i>	<i>2 3/8</i>			<i>2 3/8</i>			<i>10</i>			Strainer <i>50-60 mesh</i>
<i>V-173</i>	<i>2</i>			<i>20</i>			<i>Iron</i>			Weight per Gallon <i>14.2</i>
<i>S-148</i>	<i>1 3/8</i>			<i>1 3/8</i>						Light Baume Temp.
										Heavy Baume Temp.
<i>W-104</i>		<i>4</i>	<i>8</i>		<i>360</i>					Viscosity <i>7-80</i> Temp.
<i>W-91</i>		<i>4</i>	<i>12</i>		<i>140</i>					Viscosimeter
<i>W-16</i>		<i>1</i>	<i>12</i>		<i>140</i>					Flash Point
<i>W-10</i>		<i>1</i>	<i>12</i>		<i>140</i>					Is Agitator Required
<i>W-11</i>		<i>1</i>	<i>6</i>		<i>110</i>					Remarks
<i>W-130</i>			<i>1/9</i>						<i>102</i>	
<i>Remember to keep formula</i> <i>Not to be taken</i> <i>from file.</i>										
Yield										

GLIDDEN AND... PRINTED IN U.S.A. FROM
GOODS

CONSISTENCY

FOR USE ON

CUSTOMER

Glidden Exterior Base Coat - White
Liquid

FORMULA RECORD

FORMULA NO. Y-1851-T

LABORATORY NO.

COST CLASS.

DATE 1/24/51

STRAINER

GRIND 4-5

MILL Pebble

WT. OR 2.5/1.6

CODE NUMBER	ONE GALLON BATCH			LARGE BATCH			IS AGITATOR REQUIRED
	PINTS	LBS.	OZS.	GALS.	LBS.	OZS.	
O-1	1-1/4			12-1/2			VISC. F. #77-82 KU TEMP. 80°F.
O-85	3/4			7-1/2			VISC. RED. TEMP.
V-557	2-5/8			26-1/4			VISCOSIMETER Krebs Stormer
V-523	2			20			COLOR White SHEEN
S-148	1-3/8			13-3/4			NON VOL. FLASH PT.
W-104	5			400			MATCH FOR
W-91	1	4		100			REDUCER
W-16	2	2		170			AMT. FOR BRUSHING Full Body
W-10	1	12		140			SPRAYING TUNING
W-21	1	6		110			DIPPING DRIP TIME
CH-180			1/8			10 Loz	BAKE TEMP.
							AIR DRIES IN
							A. D. NO RECOAT IN
							REMARKS Standard Formula.
							Net to be taken
							from file.
							FORMULATOR H.G. Hayward
							19

Standard Formula.
Not to be taken
from file.

To conserve W-91.

DISCONTINUED

GLD060653

REGISTERED PRINTED IN U.S.A. ONLY

Formula Record

Formula No. Y-1851-G

Sliden Exterior Base Coat-White

LABORATORY NO.

FOR USE ON

COST CLASS: DATE 9/18/51

STRAINER

CHND 4-5

MIX. Pebble

MT. CR. 14.2%

CODE NUMBER	ONE GALLON BATCH		500		ONE BATCH	
	FINES	GRS.	GRS.	GRS.	GRS.	GRS.
Y-101		4	8		360	
Y-61		1	12		140	
Y-16		1	12		140	
Y-10		1	12		140	
Y-11		1	6		110	
O-1	1-1/4			12-1/2		
O-35	3/4			7-1/2		
Y-557	2-5/8			26-1/4		
Y-523	2			20		
3-142	1-3/8			13-3/4		
GF-100			1/8		10	
YIELD						
1106						

Standard Formula.
Not to be taken
from File.

IS ROTARY EQUIPPED

VISC. 77-82 KU @ 80°F

V. P. 60%

15%

VISCOSITY Krebs Stormer

COLOR White

GREEN

MAX. VOL.

FLASH PT.

WATER FOR

REDUCED

ACF. FOR BRUSHING Full Body

SPRAYING

TUBLING

DIPPING

DIP TIME

BAKE

TEMP.

AIR DRIES IN

A. D. TO RECOAT IN

REMARKS:

FORMULATOR E.G.H.

25-0-4

GLD060654

FORMULA NO.

W-1851-8

CORP.

Glidden Superior Base Coat - White

LABORATORY NO.

COMPETENCY

Liquid

COST CLASS.

DATE 11/5/57

FOR DEL ON

STRAINER

GRIND 4-6

CUSTOMER

MILL Paddle

WT. OF BE 1A

CODE NUMBER	ONE GALLON BATCH			LARGE BATCH			IS AGITATOR REQUIRED
	PINTS	LBS.	OZS.	GALS.	LBS.	OZS.	
W-208		1	16		160		VISC. F.B. 77-82 TEMP. 50°F
		1	16		160		VISC. RED. TEMP.
		1	16		160		VISCOSIMETER 10000 STORING
		1	16		160		COLOR SHEEN
		1	16		160		NON VOL. FLASH PT.
		1	16		160		MATCH FOR
							REDUCER
							AMT. FOR BRUSHING Full Body
							SPRAYING TUBING
							DIPPING DRIP TIME
							BAKE TEMP.
W-180			1/8			10	AIR DRIES IN
							A. D. TO RECOAT IN
							REMARKS:
							**Reissued Formula
							5/19/52 to show
							Glidden W-208.
							FORMULATOR HGH
							H. H. H. H.
							6

Standard Formula.
not to be taken
from file.

COST	DATE	ANALYSIS		CUSTOMERS	
		PIGMENT	%	Glidden Exterior Base Coat	
		VEHICLE	%	White	
			100.0%	11/5/57	
		PIGMENT			
		LEAD	20.0%	Y Trade Sales Enamel Inst 11-12-57	
		LEAD	40.0%		
		LEAD	15.0%		
		LEAD	82.0%	Portland - Van - S. Fran 6-17-5	
			100.0%	Cuba 6-17-58	
				Colombia 6-30-5	
				Cuba	
				Cuba 7-16-5	
				West India 11-24-	
		VEHICLE			
		* Varnish	57.8%		
		Linseed Oil	26.4		
		Mineral Spirits	15.8		
			100.0%		
		* Non-Volatiles (Tung Oil,			
		Fish Oil, Resin)	63.2%		
		Volatile Mineral			
		Spirits	36.8		
			100.0 %		

GLD060658

GLASS Endurance Basecoat - Mildew & ~~Stain~~ Resistant

LABORATORY NO.

CONSISTENCY

COST CLASS.

DATE

FOR USE ON

(MORE THAN 1% LEAD)

STRAINER

GRIND

CUSTOMER

MILL

WT. CR BE

CODE NUMBER	ONE GALLON BATCH			LARGE BATCH			IS AGITATOR REQUIRED	REMARKS
	PINTS	LBS.	OZS.	GALS.	LBS.	OZS.		
M-104		3	15		285			
M-208		1	14		137			
M-16		2			146			
M-10		1	4		90			
M-11		2	14		210			
M-218) Premix			1/2		2.3			
S-72) before adding 1/4 Lox)			.14					
to mill.								
C-1	1-1/2			13.7				
C-286	2-1/8			19.3				
V-523	2			18.3				
S-148	1-3/8			12.5				
S-43	1			9.0				
CE-359			3/8	.21				
CH-446 (noip)			1/4	.14				
VM-559			1	.57				
Batch must be 77 KU or higher before addition of M-446.								
YIELD	1.37			100.7				

Pebble or 77 Morehouse

VISC. F.B. 77-82 KU

VISC. RED. TEMP.

VISCOSIMETER Starnet

COLOR SHEEN

NON VOL. FLASH PT.

MATCH FOR

REDUCER S-43

AMT. FOR BRUSHING F.B.

SPRAYING TUMBLING

DIPPING DRIP TIME

BAKE TEMP.

AIR DRIES IN O.N.

A. D. TO RECOAT IN

REMARKS:

Changed for lower cost,
viscosity stability &
mildewicide.

FORMULATOR J.E. Southwick

30-12-

COST	DATE	ANALYSIS	CUSTOMERS
		PIGMENT 61.5 %	Endurance Basecoat
		VEHICLE 38.5 %	Mildew & Fume Resistant
		100.0%	12 March (C) 1-1-58
			1/13/58
		PIGMENT	
		Titanium Dioxide 16.0%	No. 3 Warning Label
		Basic Carbonate of	J. K. (C) 5-24-58
		White Lead 32.8	
		Barium Sulphate 10.2	
		Magnesium Silicate 40.9	Contains added fungicide to make
		100.0%	this paint resistant to the action
			of Mildew Fungi growing in or on
			the paint.
		VEHICLE H.P. M.L. 9-16-60	Resistant to Mildew On The Paint
		Fung & Linseed Oils,	Film Only.
		Resin 63.5%	
		Mineral Spirits 36.5	Di(Phenyl-Mercury)-
		Formulated 3-29-60 100.0%	Dodecenyl Succinate .10%
			Inert Ingredients 99.90
			100.00
		Cable	
		Colombia	
		Caracas	
		Managua	
		Barro Colorado	
		West Indies	
		Guatemala 11/4/59 3-14-60	Y-Tar Sales Enclosed List
		Y-1851 Norway Sweden 851 1-22-60	3-2-59
			Guatemala 8-29-60
			Guatemala 3-2-59
			Guatemala 7-30-59
			Guatemala 1-11-60

GLD060660

[illegible]

COST	DATE	ANALYSIS		CUSTOMERS	Y-1851-K
<i>Lab. Japan</i>	3/16-62	PIGMENT	61.5	Endurance Basecoat - Mildew & Fume Resistant	
		VEHICLE	38.5		
<i>Lab. 6. (Inv. D.)</i>	<i>7/15 2/19/61</i>		100.0%		1/27/61
		PIGMENT		No. 4 Label Warning	
		Titanium Dioxide	16.0%		
		Basic Carbonate of		No change in analysis	
		White Lead	32.8		
		Barium Sulphate	10.3	Contains added fungicide to make this paint resistant to the action of Mildew Fungi growing in or on the paint.	
		Magnesium Silicate	40.9		
			100.0%	Resistant to Mildew On The Paint Film Only.	
		VEHICLE			
		Tung & Linseed Oils,		Di(Phenyl-Mercury)- Dodecenyl Succinate .10%	
		Resin	63.5%		
		Mineral Spirits	36.5	Inert Ingredients 99.90	
			100.0%		
		<i>Prostolun, Chile, Colombia</i>		100.00%	
		<i>Esmeralda, Ecuador, Guatemala</i>			
		<i>Mexico, Venezuela, Brazil</i>		Enamel Test 2-2-61	
		<i>Sweden, West Indies</i>			
		<i>2-14-61</i>		Pluto #1-2-4-5-12-14-8-11-17	
		<i>Hose (#16) 9-14-61</i>			
				Also Y-3651 & Y-7025	
		Y-1851	851	Marche (Portland) 2-2-61	

GLD060663

GLD 060664 PRINTED IN U.S.A. FRONT

FORMULA RECORD

FORMULA NO. Y-1851-K BASE

GALV. Endurance Basecoat - Mildew & Fume

LABORATORY NO.

COMP. AGENCY

Resistant

COST CLASS

DATE 6/7/63

PROD. ON

Mfg. at plants #1-2-4-5-8-12-14-15-16-17

STRAINER

GRIND 2-3

CUT. WHEN

More than 1% Lead

MILL Pebble

WT. OR BE 14.1#

CODE NUMBER	ONE GALLON BATCH			LARGE BATCH			IS AGITATOR REQUIRED
	PINTS	LBS.	OZS.	GALS.	LBS.	OZS.	
104				(5.02)	285.0		VISC. F. B. 80-83 KD TEMP. 77°F
208				(3.97)	137.0		VISC. RED. TEMP.
16				(6.62)	146.0		VISCOSIMETER Stormer
10				(2.42)	90.0		COLOR White SHEEN
11				(8.84)	210.0		NON VOL. 85.6% (Wt) ASH PT. 100°F
218	Premix			(0.15)	2.3		MATCH FOR
91				(0.18)	(1.25)		REDUCER S-43
1				13.7	(106.5)		AMT. FOR BRUSHING P.B.
286				19.3	(155.1)		SPRAYING TUMBLING
523				18.3	(135.4)		DIPPING DRIP TIME
148				12.1	(82.6)		BAKE TEMP.
43				9.0	(58.5)		AIR DRIES IN 0.N.
359				0.20	(1.53)		A.D. TO RECOAT IN 48 hrs.
659				0.57	(5.88)		REMARKS Reissued to replace 8-72.
446 (Hold for viscosity)				0.14	(1.03)		NV by Vol. 69.5%
							PVC 38.5%
SEE Y-1851-K				100.77	1417.06		FORMULATOR J. E. Southwick
YIELD							

GLD060664

COST	DATE	ANALYSIS	CUSTOMERS
		PIGMENT 61.5 %	Endurance Basecoat Mildew
		VEHICLE 38.5 %	3 Fung. Resistant
		100.0%	6/7/63
		PIGMENT	
		Titanium Dioxide 16.0%	
		Basic Carbonate of	Warning No. 14-62 NFVLA
		White Lead 32.8	(12/19/62)
		Barium Sulphate 10.3	No change in analysis
		Magnesium Silicate 40.0	
		100.0%	Contains added fungicide to make this paint resistant to the action of Mildew Fungi growing in or on the paint.
		VEHICLE	
		Tung & Linseed Oils	Resistant to Mildew on the Paint Film Only.
		Resin 69.5%	
		Mineral Spirits 36.5	
		100.0%	Di(Phenyl-Mercury)-
		Enamel List 6-14-63	Dodecenyl Succinate 10%
		01-2-4-5-8-12-14-15-16-17	Inert Ingredients 90.00
			100.00%
		Norway 7-15-63	
		Panama 8-29-63	Also Y-3651 & Y-7025
		Mexico 1-9-64	
		Y-1851 851	

GLD060665

GOODS Endurance Basecoat - Mildew & Fume

LABORATORY NO.

CONSISTENCY Resistant - White

COST CLASS

DATE 2/4/64

FOR USE ON Mfg. at plants #1-2-4-5-8-12-14-15-16-17-11

STRAINER

GRIND 3-4

CUSTOMER Less than 1% Lead

MIDNORHOUSE

WT. OR DEL 1.7

CODE NUMBER	ONE GALLON BATCH			LARGE BATCH			IS NOT TO BE USED FOR ONLY
	PINTS	LBS.	OZS.	GALS.	LBS.	OZS.	
V-855				26.10	(216.5)		VISC. F. B. 72-77
V-523				5.00	(37.0)		TEMP. 2-12 K
							VISC. RED. TEMP.
							VISCOSIMETER Stomper
W-208				5.62	200.0		COLOR White SHEEN
W-188				17.00	400.0		NON VOL. 78% FLASH PT.
M-500				0.72	6.0		MATCH FOR
Dispense to 3-4:Min. temp. 160°F							REDUCER S-43
V-523				15.30	(113.0)		AMT. FOR BRUSHING P.B.
S-43				13.40	(87.0)		SPRAYING TUNBLING
S-148				15.50	(103.0)		DIPPING DRIP TIME
							BAKE TEMP.
VM-816				0.40	(2.9)		AIR DRIES IN O.N.
VM-534				0.30	(2.4)		A. D. TO RECOAT IN 24 hrs.
CH-359				0.20	(1.5)		REMARKS: Changed for better
VM-659				0.50	(4.0)		brushing.
DO NOT PRODUCE IN PEBBLE MILL.							Mill Base 54.4%
							NV by Vol. 60.2%
							P.V.C. 38.5%
							FORMULATOR. E. Southwick
YIELD				100.04	1173.3		

COST	DATE	ANALYSIS	CUSTOMERS
		PIGMENT 51.0 % VEHICLE 49.0 % <u>100.0%</u>	Y-1851-L Endurance Basecoat - Mildew & Fume Resistant - White
		PIGMENT Titanium Dioxide 33.3% Magnesium Silicate 66.6 <u>100.0%</u>	2/4/64 Warning No. (14-62) NFVLA was changed to 11-62
			Contains added fungicide to make this paint resistant to the action of Mildew Fungi growing in or on the paint.
			Resistant to Mildew on the Paint Film Only.
		VEHICLE Linseed Alkyd & Tung 54.5% Oil Rosin 45.2 Mineral Spirits & Driers <u>100.0%</u>	Dl(Phenyl-Mercury)- 0.08 Dodeceny Succinate Inert Ingredients 99.92 <u>100.00</u>
			Y Enamel Int 2-7-64 #1-2-4-5-8-9-12-14-15-16-17
		Y-1851 461	

GOODS Endurance Basecoat - Mildew & Fung

LABORATORY NO.

CONSISTENCY Resistant - White

COST CLASS Reissue DATE 2/12/6

FOR USE ON Mfg. at plants #1-2-4-5-8-12-14-15-16-17-18

TRAINER

GRIND 3-4

CUSTOMER Less than 1% lead

** MILL COWLES OR WT. OR BE 11.7

CODE NUMBER	ONE GALLON BATCH			LARGE BATCH			IS AGITATOR REQUIRED
	PINTS	LBS.	OZS.	GALS.	LBS.	OZS.	
V-855				26.10	(216.5)		VISC. F.B. 72-77 KMP.
V-523				5.00	(37.0)		VISC. RED. TEMP.
							VISCOSIMETER Stormer
W-208				(5.62)	200.0		COLOR White SHEEN
W-188				(17.00)	400.0		NON VOL. 78% FLASH PT.
M-500				(0.72)	5.0		BATCH FOR
Disperse to 3-4 min. temp. 150°F							REDUCER S-43
V-523				15.30	(113.0)		AMT. FOR BRUSHING F.B.
S-43				13.40	(87.0)		SPRAYING TUMBLING
S-148				15.50	(103.0)		DIPPING DRIP TIME
	Standard formula						BAKE TEMP.
VM-810	Not to be taken			0.40	(2.9)		AIR DRIES IN O.N.
VM-534	from file			0.30	(2.4)		REMARKS: Changed for better brushing
CH-359				0.20	(1.5)		
VM-659				0.50	(4.0)		
DO NOT PRODUCE IN PEBBLE MILL							
**reissued to change Mill to read Cowles or Morehouse.							
YIELD				100.0	1173.3		
							MILL Base 54.4%
							NV by Vol 60.2%
							F.V.O. 38.5%
							FORMULATOR J. E. Southern

COST	DATE	ANALYSIS	CUSTOMERS
		PIGMENT 51.0 %	Y-1851-1
		VEHICLE 49.0 %	Endurance Basecoat - Mildew &
		100.0%	Fume Resistant - White
			2/4/64
		PIGMENT	Warning No. 11-62 NFPA
		Titanium Dioxide 33.3%	
		Magnesium Silicate 66.6	
		100.0%	Contains added fungicide to make
			this paint resistant to the
			action of Mildew Fungi growing
			in or on the paint.
	<i>Panama</i>	<i>1-26-64 (3)</i>	Resistant to Mildew on the Paint
	<i>Sweden</i>	<i>6-18-64 (3)</i>	Film Only.
		VEHICLE	
		Linseed Alkyd & Tung	Di(Phenyl-Mercury)- 2.08%
		Oil Rosin 54.6%	Dodecanyl Succinate
		Mineral Spirits & Driers 45.4	Inert Ingredients 91.92%
		100.0%	100.00%
	<i>Australia</i>	<i>3-26-64 (3)</i>	<i>Y Enamel Lot 2-12-64</i>
			<i>1-2-4-5-8-12-14-15-16-17-11</i>
	<i>Manila</i>	<i>3-30-64</i>	
	<i>Colombia</i>	<i>4-24-64 (3)</i>	<i>West Indies 3-3-64</i>
	<i>Quebec</i>	<i>4-27-64 (3)</i>	<i>South Africa 8-24-64</i>
	<i>France</i>	<i>5-5-64</i>	<i>Guatemala 2-9-64</i>
	<i>Finland</i>	<i>5-6-64</i>	<i>Mexico 3-23-64</i>

GLD060669

GLIDDEN 480-6 PRINTED IN U.S.A. FRONT

FORMULA RECORD

FORMULA NO. V-1851-M

GOODS Endurance Basecoat - Mildew & Fungus

LABORATORY NO.

CONSISTENCY Resistant - White

COST CLASS

DATE 9/14/64

FOR USE ON Mfg. plants #1-2-4-5-8-11-12-14-15-16-17

STRAINER

GRIND 3-4

CUSTOMER Less than 1% Lead

MIL Cowles or

WT. OR BF 11.7

CODE NUMBER	ONE GALLON BATCH			LARGE BATCH			VISC. F. 77-80	TEMP.
	PINTS	LBS.	OZS.	GALS.	LBS.	OZS.		
V-855	Standard Formula			26.10	(216.5)		VISC. RED.	TEMP.
V-523	Not to be taken			5.00	(37.0)		VISCOSIMETER	Storner
M-208	from File			5.62	200.0		COLOR	White
M-188				17.00	400.0		NON VOL.	78%
M-500				0.72	6.0		FLASH	100°F
Disperse to 3-4 Min. temp. 150°F							REDUCER	S-43
V-523				15.30	(113.0)		ANT. FOR BRUSHING	F.B.
S-43				13.40	(87.0)		SPRAYING	TUMBLING
S-148				15.50	(103.0)		DIPPING	DRIP TIME
							BAKE	TEMP.
VM-816				0.40	(2.9)		AIR DRIES IN	O.N.
VM-534				0.30	(2.4)		A. D. TO RECOAT	124 hrs.
CH-350				0.20	(1.5)		REMARKS	Changed to increase
VM-650				0.50	(4.0)		viscosity.	
DO NOT PRODUCE IN TEEBLE MILL							(Mill Base	54.4%
If necessary body with M-486, 0.1-0.2 gal/100 gal							(NV by Vol.	60.2%
and VM-523, 0.1-0.2 gal/100 gal. ADD SEPARATELY.							(PVO	38.5
Do not add bodying agents if viscosity is							FORMULATOR	J. E. Southwick
below 72 KU - Blend with another batch.								
YIELD				100.00	1173.3			

GLD060670

[illegible]

GLIDDEN 483-N PRINTED IN U.S.A. FRONT

FORMULA RECORD

FORMULA NO. Y-1851-N BASE

GOODS Endurance Basecoat - Mildew & Fume

LABORATORY NO.

CONSISTENCY Resistant - White

COST CLASS

DATE 6/1/65

FOR USE ON Mfg. plants #1-2-4-5-8-11-12-14-15-16-17

STRAINER

GRIND 3-4

CUSTOMER Less than 1% Lead

MILL Cowles or WT. OR SE 1.7

CODE NUMBER	ONE GALLON BATCH			LARGE BATCH			IS AGITATED FOR 5 MIN. IN Morehouse
	PINTS	LBS.	OZS.	GALS.	LBS.	OZS.	
V-855	Standard Formula, Not to be taken from File.			26.10	(216.5)		VISC. F. & 77-80 KU TEMP.
V-523				5.00	(37.0)		VISC. RED. TEMP.
							VISCOSIMETER Stormer
W-290				5.62	200.0		COLOR White SKEEN
W-188				17.00	400.0		NON VOL. 78% FLASH PT 100°F
M-500				0.72	6.0		MATCH FOR
Disperse to 3-4 Min. temp. 160°F.							REDUCER S-43
V-523				15.30	(113.0)		AMT. FOR BRUSHING F.B.
S-43				13.40	(87.0)		SPRAYING TUMBLING
S-148				15.50	(103.0)		DIPPING DRIP TIME
							BAKE TEMP.
VM-816				0.40	(2.9)		
VM-534				0.30	(2.4)		AIR DRIES IN 0.N.
CH-359				0.20	(1.5)		A. D. TO RECOAT IN 24 hrs.
VM-659				0.50	(4.0)		REMARKS: Changed to use W-290
DO NOT FRAUDULENCE IN PEBBLE MILL.							MILL Base 54.4%
If necessary body with M-486, 0.1-0.2 gal/100 gal.							NV by Vol. 60.2%
and VM-523, 0.1-0.2 gal/100 gal.-ADD SEPARATELY							PVC 38.5%
Do not add bodying agents if viscosity is below 72 KU - Blend with another batch.							
YIELD				100.00	1173.3		FORMULATOR J. E. Southwick

GLD060672

COST	DATE	ANALYSIS	CUSTOMERS	Y-1851-N
		PIGMENT 51.0 %	Endurance Basecoat - Mildew &	
		VEHICLE 49.0 %	Fume Resistant - White	
		100.0%		6/1/65
		PIGMENT	4 PMS 2 31-66	
		Titanium Dioxide 33.3%	Warning No. 11-62 NPVLA	
		Magnesium Silicate 66.6%		
		100.0%		
		<i>Projected analysis sent</i>	Contains added fungicide to make	
		<i>to Bremmen 5-21-66</i>	this paint resistant to the	
			action of Mildew Fungi growing	
			in or on the paint.	
			Resistant to Mildew on the Paint	
		VEHICLE	Film Only.	
		Linseed Alkyd & Tung		
		Oil Rosin 54.6%	Di(Phenyl-Mercury) 0.0%	
		Mineral Spirits &	Dodecenyl Succinate	
		Driers 45.4%	Inert Ingredients 99.9%	
		100.0%	100.0%	
		<i>#30 (Engelhard) 8-4-66 #1</i>	No change in analysis.	
		<i>Costa Rica 9-2-66 ⑤</i>	<i>Y- Paint Test 6-7-65</i>	
			<i>#1-2-4-5-8-11-12-14-15-16-17</i>	
		Y-1851 461	<i>#30 (Thermin.) 2-24-66 ①</i>	

GLD060673

Calden Form 1109-1, Printed in U.S.A. 4/66

C & R FORMULA

Product **Endurance Basecoat - Mildew & Fume Resistant -**
 Customer **White**

Formula Number **Y-1851-N**

Laboratory Number

R.M. Cost

Date **3/1/67**Mill **CONV/MSR**Grind **3-4**

CODE NUMBER	100 GALLON BATCH		% BY WEIGHT	MANUFACTURING INSTRUCTIONS	NPVLA	Label Warning	Wt./Gal.	Flash Pt.	N.V.Wt.	N.V.Val.	Visc. F.B.	Visc. Red.	Reducer	P.Y.C.	Color	Ratio	pH	Match	METHOD
	GALLONS	POUNDS																	
V-2197	26.10	(216.5)		DO NOT PRODUCE IN PEBBLE MILL															
V-535	5.00	(37.0)																	
W-830	(5.62)	200.0																	
N-439	(17.00)	400.0																	
E-152	(0.72)	6.0																	
Disperse to 3-4 min. temp. 160°F																			
V-535	15.30	(113.0)																	
S-330	13.40	(87.0)																	
S-348	15.50	(103.0)																	
E-392	0.40	(2.9)																	
E-384	0.30	(2.4)																	
E-262	0.20	(1.5)																	
E-419	0.50	(4.0)																	

Standard Formula
 Not to be taken
 from File.

Mill Charge - 54.4g

DISCONTINUED

Y-1851-P

Brush

If necessary, body with E-168, 0.1-0.2 gal/100 gal. & E-380, 0.1-0.2 gal/100 gal. - ADD SEPARATELY.

DO NOT add bodying agents if viscosity is below 72 KU - Blend with another batch.

Yield 100.00 1173.3

Formulator J. E. Southwick

Approved by

GLD060674

Date 3/1/67 Formula No. Y-1851-N

CLASS

CODES

DESCRIPTORS (20 spaces--limit)

Trade Name

Customer

Substrate and Treatment

End Use

Specifications

Resin

Yes ☐No ☐

Silicone

Yes ☐No ☐

Resins

Color

Gloss

Form Use On

Resistance

Manufactured at Plant #1-2-4-5-8-11-12-14-15-16-17

Contains added fungicide to make this paint

resistant to the action of Mildew Fungi

Manufactured at Plant #1-2-4-5-8-11-12-14-15-16-17

Resistant to Mildew on the Paint Film Only.

DI (Phenyl-Mercury)

Dodecyl Succinate 0.08%

Inert Ingredients 99.92%

100.00%

Product Endurance Basecoat - Mildew

& Fume Resistant - White

Label Warning

#11-62 NPVLA

ANALYSIS

Pigment 51.0 %

Vehicle 49.0 %

100.0%

Pigment

Titanium Dioxide 33.3%

Magnesium Silicate 66.6%

100.0%

Vehicle

Linseed Alkyd & Tung

Oil Resin 54.6%

Mineral Spirits &

Driers 45.4%

100.0%

NO CHANGE IN ANALYSIS

Y-1851

461

Product **Endurance Base Coat - Mildew & Fume Resistant**

Formula Number **Y-1851-P**

Customer

White

Laboratory Number

R.M. Cost

Date **3/1/67**

CODE NUMBER

100 GALLON BATCH

% BY
WEIGHT

MANUFACTURING
INSTRUCTIONS

Red/Cowles

Grind **3-4**

NPVLA %Lead **-1**

Label Warning **11-52**

METHOD

%h./Gol. **11.5**

Flash Pt. °F.

N.V.W. **77.8%**

N.V.Vol. **61.1%**

Visc. F. **77-80**
4-C-1

Visc. Red.

Reducer **S-330**

Ratio

P.V.C. **39.2%**

pH

Color **White**

Match

Glass

Method

Strainer

Container

Application **Brush**

Cure **Air Dries: Overnight**
Recoat 24 hrs.

Remarks

Formulator **Green/Southwick**

Approved by **Bowell**

Yield

100.08 1166.3

Standard Form
Not to be
taken
from File

Glidden Form 1109-1 (back) Printed in U.S.A. 4/65

C & R FORMULA

Date 3/1/67 Formula No. Y-1851-P

CLASS
CODES

Product Endurance Base Coat-Mildew
2. Fine Resistant - White
Label Warning #11-62

DESCRIPTORS (20 spaces—limit)

Trade Name Customer

Substrate and Treatment

End Use

Specifications

Royalty Yes ☐ No ☒ Silicone Yes ☐ No ☒

ANALYSIS
Pigment 51.0 %
Vehicle 49.0 %
100.0%

Resins Linseed Alkyd Tung Oil Rosin

Titanium Dioxide 33.733.3%
Magnesium Silicate 16.66.7
100.0%

Color Gloss

For Use On #1 (Prod) per TMS 2-7-67

#14 only 1-26-67

Resistance #30

Y. Pl. List 6-8-67
#1-2-4-5-8-11-12-14
15-16-17

Manufactured at Plant #1-2-4-5-8-11-12-14-15-16-17

#30 (Engstrom) 6-8-67
Vehicle

#2 5-24-67 per R.H.

Manufacturing Instructions or Remarks

Linseed Alkyd
Tung Oil Rosin 54.6%
Mineral Spirits 45.4%
100.0%

Australia, Colombia, Costa Rica, Ecuador

St. Vincent, Grenada, Barbados

Spain, Philippines, Mexico, Panama

Peru, Trinidad, Norway

6-23-67

Philippines, China, Indonesia

Sweden 6-27-67

Di (Phenyl-Mercury)
Dodecenyl Succinate 0.08%
Inert Ingredients 99.92%
100.00%
No change in analysis
Y-1851 763

#30 (Synops) 1-3-67

GLD060677

Product: Endurance Base Coat - White

409.7

Formula Number Y-1851-R

Laboratory Number **BASE**

R.M. Cost \$1.57 Date 11/22/68

Mill Cowl/Publ Grind 3-4

NPV	%Lead	-9
-----	-------	----

Label Warning : 11-62 METHOD

Wt. Gold	11.91	
----------	-------	--

Flash Pt., °F.	100
----------------	-----

N.Y. 114.	26.8
-----------	------

N.V. Vol.	59.4	
-----------	------	--

Visc. F.B. 77-80

Visc. Res.

Reducer S-330 Ratio

P.Y.C. 46, 108

Color	White	Match	
-------	-------	-------	--

Gloss: 10-20 Method

Strainer

5. Conjoint

Application Brush

AD/Boko 16 hrs.

Recall Time 24 hrs.

Remarks	Changed for batt.
---------	-------------------

dry, visc. & gloss. co

Customer

CODE NUMBER	100 GALLON BATCH		% BY WEIGHT	MANUFACTURING INSTRUCTIONS	Mill Cowl/Pabl Grad 3-4	
	GALLONS	POUNDS			RPVLA	% Lead
*V-2197	18.81	(158.0)	13.22		RPVLA	11-62
V-2390	10.77	(84.0)	7.03		Label Warning	METHOD
E-155	(0.98)	12.0	1.00		W./Gal.	11.9
W-830	(5.82)	200.0	16.74		Flash Pt. °F.	100
N-439	(17.00)	400.0	33.42		N.V.Wt.	76.8
E-454	(0.17)	2.0	0.17		N.V.Vol.	59.4
N-384	(1.04)	20.0	1.67	Hold for gloss adjustment.	Visc. F.B.	77-80
Disperse to 3-4 DO NOT EXCEED 130°F.					Visc. Red.	
V-535	20.27	(150.0)	12.55		Reducer S-330 Ratio	
S-330	9.28	(61.25)	5.13		P.M.C.	40.165
S-348	14.96	(101.0)	8.49		Color White	Match
E-392	(0.4)	2.9	0.24		Glass 10-20	Method
E-324	(0.3)	2.4	0.20		Strainer	
E-262	(0.2)	1.5	0.13		Container	
					Application	Brush
					AD/Sols	16 hrs.
					Recast Time	24 hrs.
					Remarks	Changed for better dry, viso. & gloss control
					Formulator	Green/Southwick
					Approved by	STB
Yield	100.0	1195.05	100.0			

Date 11/22/68 Formula No. Y-1851-R

CLASS

CODES

Product Endurance Base Coat -

White

DESCRIPTORS (20 spaces-limit)

Label Warning #11-62 NPVIA

Trade Name

Customer

ANALYSIS

Substrate and Treatment

Pigment 51.9 %

End Use

Vehicle 48.1 %

Specifications

100.0%

Royalty Yes ☐ No ☐ Silicone Yes ☐ No ☐

Pigment

Resins

Titanium Dioxide 32.3%

Silica & Silicates 67.7%

Norway 7-6-71(6) 100.0%

Color

Gloss

For Use On

Contains added fungicide to make this paint resistant to the action

P30 (Emulsion) 12-10-68

Resistance

of Mildew Fungi growing in or on the paint.

Cuba, Peru, Guatemala, Mexico, Panama, Ecuador 12-2-70

Manufactured at Plants

Resistant to Mildew on the Paint Film Only.

#3 (Pyrex) 2-17-67

Vehicle

Linseed Tall Oil Alkyd

Manufacturing Instructions or Remarks

Active Ingredients:

1-2 bis (n-Propyl-

sulfonyl)ethane

0.16%

Inert Ingredients:

99.84%

100.00%

Tung Oil Resin 51.9%

Mineral Spirits

& Driers 48.1%

100.0%

England 6-28-71

Mfg. Plants: #1-2-3-8-11-12-14-15-16-17

1-17-69
Y-1851

8611

GLIDDEN-DUNKLE Form 1333 Printed in U.S.A. 1/71

CAR FORMULA

Product **ENDURANCE BASE GRAY WHITE**

☐ ROYALTY

Customer

Tires Color

ADD BY WEIGHT	100 GALLON BATCH		% BY WEIGHT	MANUFACTURING INSTRUCTIONS
	GALLONS	POUNDS		
V2395	19.51	158.00	13.27	DISPERSE TO 3-4
V2396	10.77	84.00	7.06	DO NOT EXCEED 130F
E155	0.98	12.00	1.01	
H330	5.82	200.00	16.80	
N435	17.00	400.00	33.60	
E254	0.17	2.00	0.17	
N384	1.04	20.00	1.88	CAN BE HELD FOR GLASS ADJUSTMENT
V525	20.27	150.00	12.60	
S330	8.88	58.62	4.92	
S238	14.98	101.10	8.49	
E290	0.18	1.50	0.13	Standard Formula NOT to be taken from File.
E325	0.20	1.60	0.13	
E268	0.20	1.50	0.13	
YIELD 100.00 1190.3 100.00				Changes: ☐ R.M. ☐ Mfg. ☐ Phys.
Formulator GREEN-JES				Approved TONG-SIE

GLD060682

Form 1213 (back) Printed in U.S.A.

C&R FORMULA

Formula or Lot No. Y1251-4

TINOS						CHANGED TL DISCONTINUED
CODES						V2197 FLM. STOCK
Trade Name	DESCRIPTOR (20 spaces - max)				Customer	
End Use						C.R. Group 12-5-71
Specs.						Max. Inst. Varnish, C. Res.
						+ Insulator
Supply	☐ Yes	☐ No	☐ S/Know	☐ Yes	☐ No	
Resins						

Resistance

*Y# Solvent List:

Mfg. or Plants

#1-2-5-8-11-12-14-15-16-17-30

7-20-71

CUSTOMER	APPLICATION				AD/BAKE	RECOAT TIME	
CONDITIONS	ENGLISH-SEALY-ROLL				A.D.-8HRS	P4-HRS	
Q	STD. GLOSS	FUEL NO. 2	VISCOSITY	METHOD	STD. GLOSS	METHOD	COLOR MATCH
U	3-4	21-ROX	411	10-209-A-1			
A	APPLICATION		FILM THICKNESS	A.O. OR BARE	MISC. TESTS		COLOR INSTR.
L	ENGLISH		3MIL		DRAIN DRAIN-MEHEST CHART		SAS STD.
I	STD. GLOSS	RED. VISCOSITY STD.	METHOD	RED. RATE	TINT TEST	STD. PENCIL HARD.	LABEL WARNING
T	11-62					11-62	100F. <1
Y	REDUCER	SUBSTRATE		STD. IMPACT METHOD SPECIAL INSTRUCTIONS			
C	S-330	L66D					
D	CATALYST	POT LIFE	AH - A. NO.	COLOR	CURE TIME	TYPE FILTER	CLEANLINESS
N							
T							
R							
D							
L							
P.V.C.	40-6	40-6	40-6	40-6	40-6	40-6	40-6

GLD060683

Product **ENDURANCE BASE COAT - WHITE**

☐ ROYALTY

Formula No. **Y1851-T**

Customer

Tires Color

Lab No.

ADD BY WEIGHT

MANUFACTURING INSTRUCTIONS

Date: **103/72**

LEAD FREE

CODE NUMBER

GALLONS

POUNDS

% BY WEIGHT

DO NOT EXCEED 130F

V2393

13.58

110.00

9.07

V2390

22.50

175.50

14.46

*** E155**

0.98

12.00

0.95

*** W550**

5.82

200.00

16.48

*** W539**

12.06

425.00

35.03

*** E451**

0.43

5.00

0.45

Opco-side N-96, Diamond Shamrock

*** N384**

1.04

20.00

1.65

GRIND TO 3-4 AND ADD

DE75

10.26

80.00

6.59

S330

8.79

58.00

4.78

S348

17.45

117.00

9.71

*** E399**

0.16

1.50

0.12

*** E390**

0.61

5.00

0.41

*** E303**

0.12

1.00

0.08

*** E262**

0.20

1.50

0.12

Standard Formula
NOT to be taken
from file

LEAD FREE - DO NOT ADD

LEAD CONTAINING MATERIALS

Changes: ☐ R.M. ☐ Mfg. ☐ Phys.

YIELD 100.00 1213.3 100.00

Formulator **GREEN/JES**

Approved **MT/STB**

FORM 7333 (BACK) PRINTED IN U.S.A.

C&R FORMULA

Formula or Lab No. 851-7

TIROS							
CODES							
Trade Name	DESCRIPTORS (20 spaces - limit)				Customer	CHANGED TO LEAD FREE & IMPROVED MILDEW CONTROL ALSO ELIMINATES V535	
End Use							
Specs.					P. Rich Laundry, International Mexico & Panama 1-0-72		
Rosin	☐ Yes ☒ No	Silicone		☐ Yes ☒ No			
Resins							

Resistance Y-Solvent List

Mtd. on Plots #1-2-3-5-8-11-12-14-15-16-17-30 : 12-1-72

#30 (Engstrom)

12-1-72

CUSTOMER	APPLICATION				AD/BAKE	RECOAT TIME	
CONDITIONS	BRUSH ROLL SPRAY				AKRS	24HRS	
Q	NEED GRIND	FULL BODY VISCOSITY	METHOD	STD. GLOSS METHOD	COLOR MATCH	COLOR INSTRU.	SAG STD.
U	E-4	77-80KU		10-203-A-1	Do not shade		
A	APPLICATION	FILM THICKNESS	A.D. OR BAKE	MISC. TESTS		LINER	MILL
L	BRUSH	3MT		DRAW DOWN MOREST CHART		CONL	
I	STD. MT/G	RED. VISCOSITY STD.	METHOD	RED. RATIO TMT TEST	STD. PENCIL HARD.	LABEL WARNING	FLASH PT. LEAD
T	11-13					11-62	100 .00
C	REDUCER	SUBSTRATE	STD. IMPACT METHOD		SPECIAL INSTRUCTIONS		
O	V530	WOOD					
N	CATALYST	POT LIFE	PH-A.M.O.	COLOR GARD.	CURE TIME	STD. NY WEIGHT	CLEANLINESS
T						78.5	
R	P.V. 1.5	5 HV/Vol. 0.7	54 Fl./Dry Mil = 0	RMS/54 Fl./Dry Mil = 0.000	RMS/Col. 1.64		

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