

OIL PAINT - TRADE

August 1964

Subject: A comparison of chrome yellows and Hansa pigments
(SR9200ZZ196)

Contributors: Green, Davis, Southwick

Summary: Exposure studies show that Hansa Yellow has good color retention in alkyds but fades rapidly in oils. Chrome Yellow has good tint retention in oils but fades rapidly in alkyds.

All exterior oils should be shaded with chrome yellows and all exterior alkyds should be shaded with Hansas.

Regal Yellow X2777 coded YW133 shows superior tint retention as compared to YW-1 in oil paints. Regal Yellow X2778 only shows slightly better color retention. This comparison is based on 9 months exposure at New Orleans and Cleveland.

Subject: Glid-Tone Stains - Reading
(RS9200ZZ196)

Contributors: Hawkins, Kerby

Summary: Two Reading Glid-Tone Stain production samples Y-254 Cherry, P143118 and Y-257 Driftwood, P144284 are equal to out standard Glid-Tone Stains.

Discussion: The two final samples of Glid-Tone Stains, Reading Production, Y-254 Cherry, P143118 and Y-257 Driftwood, P144284 have been evaluated. Both have been found to be equal to our standard Glid-Tone Stains in all respects.

Conclusions: These two stains complete the Reading production of the complete Glid-Tone Stain line. Our tests show that their rproduction is sufficiently close to our standards to be approximately equal in quality in all respects.

Subject: EGL64305 Water Repellent Glid-Tone Stain Vehicle Formulation Change and Exposure Evaluation
(NT23045AH262)

Contributors: Davis, Southwick

Summary: A change in formulation on EGL65405 has been written up, which eliminates the necessity of heating the material to 200°F in order for the zinc stearate, M438, to go into solution. The change involves replacing S-91, denatured alcohol with S-64 Diacetone alcohol and changes in procedure of mixing, other physical properties are not changed. This enables the stain vehicle to be heated only to temperature to melt wax, (150°F) allowing utilization of steam heat jacketed drums for ease of handling in manufacturing.

Exposures after nine months are very promising, showing excellent durability and good color retention. These exposure panels were prepared

by mixing several of our Glid-Tone Stain colors and our Velvet House Paint colors one to one with EGL64305, water repellent stain vehicle. Panels have been returned for further weathering. The new formulation is EGL64305A

Subject: Y-1851L vs Competitive Primers

Contributor: R. W. Green

Summary: Comparisons have been made of Glidden's Basecoat, Y-1851L, vs eight major competitive primers. Our preliminary tests show Y-1851L to be superior to any other primer.

Our initial tests included brushing, dry, water soak and blister tests. Further tests are being conducted on exterior exposures. These exposures include cedar, white pine, yellow pine, and fir plywood. Blister tests are in progress on the GTMG's and in the deep freeze blister box.

The table below rates each paint tested and the results.

These tests confirm that Y-1851L is a superior, easy brushing, non-staining, blister resistant primer.

	Package condition	Viscosity	Grind	Wt/Gal	Hiding as TiO ₂	% Lead	Blister box test	Water soak test	Dry
Glidden's Basecoat Y-1851L	Very good	75 Ku	3	11.6	2#	0 Lead free	Best No blisters	1st small blisters	5½ hrs
DuPonts 39	Poor	79 Ku	1	12.75	1.4#	Basic carbonate of white lead 13%	7th Large blister	9th Large blisters	5½ hrs
DuPonts 49	Excellent	67 Ku Too thin	7	9.80	1# Very low	0 Lead free	2nd best few small blisters	2nd Medium blisters	5½ hrs
SWP 450	Good	77 Ku	3	12.55	1.43#	Basic lead carbonate	8th lg. blisters	5th Med. to lg. blisters	6 hrs
SWP A-100 Primer	Poor	79 Ku	2-3	12.53	1.75#	Basic Lead carbonate 13%	9th lg. Blist.	8th lg. blisters	6 hrs
Pittsburgh 1-201	Good	72 Ku	2-3	11.00	1.45#	0 lead free	3rd Few lg. blister	3rd Med to lg. blisters	5½ hrs
Pratt & Lambert 305	Fair	77 Ku	1+	12.33	1.45#	Basic carbonate as white lead 7.8% Basic silicate as White lead 4.7%	4th many med. Blist.	7th lg. blisters	8+ hr

GLD004879

	<u>Package condition</u>	<u>Viscosity</u>	<u>Grind</u>	<u>Wt/Gal</u>	<u>Hiding as TiO₂</u>	<u>% Lead</u>	<u>Blister box test</u>	<u>Water soak test</u>	<u>Dry</u>
Sears Master Mix 2190-4	Fair to poor	74 Ku	0-1	12.52	1.25#	Basic silica of White Lead	5th lg. blisters	4th Med. to lg blisters	7 $\frac{1}{2}$ hrs
Dutch Boy 010	Good	86 Ku	3-4	13.84	1.42#	50-50 basic carbonate of white lead and silicate of white lead 49.7%	6th many med. blist.	6th many med. blist.	5 hrs

GLD004880

TRADE SALES PRODUCTS

CLEARs

August 1964

Subject: Defoaming of 300-C-1 Latex Glaze Coat
(NT23031CG368)

Contributor: Paul Hawkins

Summary: Our tests show that defoaming properties can be improved but are still not extensive enough to recommend the 300-C-1 for spraying or brushing. The Resin Lab is making another series of latexes for us to evaluate.

Discussion: The following new series of defoamers was run at the ratio of 0.5 gm. of defoamer to 100 gms of 300-C-1 unless otherwise stated.

<u>Defoamer</u>	<u>Appearance of 300-C-1 on Glass</u>	<u>Retention of Foam in Dried Film of 300-C-1</u>
1. CH-480	Cloudy - crawling	No foam
2. Nopco NXZ	Cloudy - crawling	No foam
3. Nopco NDW	Cloudy	Considerable foam
4. Nopco LHQ	Cloudy	Considerable foam
5. Nopco NLG	Cloudy	Considerable foam
6. Colloid 600	Cloudy - crawling	Slight foam
7. Hodag FD-62	Clear - crawling	Very slight foam
8. Defoamer 913-5X Drew Research	Slightly cloudy, crawling	Considerable foam
9. Mobilpar H	Slightly cloudy, crawling	Considerable foam
10. Defoamer 913-P Drew Research	Slightly cloudy - clear	Considerable foam
11. Colloid 566	Poor dispersion of defoamer	Considerable foam
12. Colloid 677	Cloudy, crawling	Slight foam
13. Colloid 711	Clear	Considerable foam
14. Arizona Chemical #301	Clear	Considerable foam
15. Armour 2935	Clear, slight crawling	Minimum of foam
15B. Armour 2935 0.25/100 300-C-1 Clear		Considerable foam
16. Mixture: 0.25-2935 0.25-Hodag	Clear - Slight crawling	Slight foam
7B. Hodag FD-62 0.25/100 300-C-1	Clear, Slight crawling	Very slight foam

The defoamers containing a small amount of silicone are the most effective for clarity but still have a slight tendency for foaming and some crawling. Some of the defoamers containing wax etc. only kill the foam entirely but leave some haze in the foam. Combinations of the two types help some but at best are still a compromise. At least, however, we are getting closer to solving our problem.

GLD004881

TABLE 2

SPRED HOUSE PAINT - AUGUST 1964

		<u>ME4-223-1</u>	<u>ME4-223-2</u>	<u>ME4-234-1</u>	<u>ME4-234-2</u>	<u>ME4-239-1</u>
S-14	Water	253.5	246.0	196.0	192.0	263.0
CH-473	TKPP	3.0	do	do	-	3.0
W-208	Zopaque R-88	220.0	do	do	do	do
W-91	" SD	30.0	do	do	do	do
W-223	Alsilate "W"	30.0	do	-	30.0	do
W-188	Nytal 300	-	101.7	-	101.7	do
W-121	Snowflake	97.6	-	128.7	-	-
M-487	QP-4400	6.0	do	3.7	do	5.0
CH-181	Ethylene Glycol	23.2	do	do	do	14.0
195-T-27	QP-4400(3%)	-	-	60.0	do	-
CH-450	Daxad 30	7.0	do	do	10.0	7.0
CH-474	CTA-639	4.0	do	do	do	do
CH-447	Defoamer 357	2.5	do	do	do	do
CH-380	Hg Fungicide	1.5	-	1.5	do	do
VM-659	Super Ad It	-	8.0	-	-	-
VM-885	W.S. Acrylic	75.0	do	do	do	do
V-855	Alkyd	66.4	do	do	do	do
S-148	Refined Kerosene	12.0	do	do	do	do
VM-432	Pb Drier	5.0	do	do	do	do
VM-433	Mn Drier	1.5	do	do	do	do
CH-444	Balab 746	4.0	do	do	do	do
RCR-0400C	Acrylic	283.0	do	do	do	do
	Yield in Gals	100	do	do	do	do
	Pig. Vol.	13	do	do	do	do
	Vehicle Vol.	24	do	do	do	do
	PVC %	35	do	do	do	do

GLD004882

N 2206.01

TABLE 3

		<u>EE4-233-1</u>	<u>EE4-234-1</u>	<u>EE4-239-1</u>	<u>EE4-239-2</u>
W-208	Rutile TiO ₂	233.1	234.1	239.1	239.2
W-91	Anatase TiO ₂	-	-	50.0	45.0
W-188	Nytal 300	112.2	-	100.0	100.0
W-121	Calcium Carbonate	110.0	-	-	-
W-173	ASP 400	-	142.0	-	-
M-239	Celite 281	-	35.0	-	25.0
W-35	Leaded Zinc Oxide	-	-	-	140.0
ZZZ55LO	Zinc Oxide	-	125.0	do	-
Zinosperse A		-	-	-	14.0
Tanol 850		-	-	-	7.0
CH-468	KTPP	-	-	6.0	2.0
CH-473	TKPP	3.0	6.0	-	-
CH-422	Tanol 731	-	12.0	do	-
CH-474	Igepal CTA 639	4.0	-	-	-
CH-450	Daxad	7.0	-	-	-
M-484	Surfynol TG	-	2.0	do	-
CH-280	25% Triton X-100	-	18.0	16.0	-
CH-181	Ethylene Glycol	23.2	12.0	do	-
VM-659	Super-Ad-It	-	2.0	do	1.0
CH-380	Phenyl Mercuric Borate	1.5	-	-	-
195-T-27	Natrosol 250 MR 3%	75.5	50.0	-	-
Natrosol 250 HR		-	-	37.5	149.0
Acrysol G-110		-	15.0	do	5.0
M-487	Natrosol 250 MR 100%	3.3	-	-	-
VM432	Nuodex Pb 24%	5.0	-	-	-
VM-433	Nuodex Mn 6%	1.5	-	-	-
Witco 24% Pb		-	-	-	8.6
Witco 6% Co		-	-	-	4.3
Advacar 6% Mn		-	2.4	2.2	-
Advacar 6% Co		-	2.4	2.2	-
Advacar 24% Pb		-	9.4	9.0	-
Linopol	Linseed Oil Emulsion	-	-	-	360.0
Cargill 1308	Linseed Oil Emulsion	-	373.4	367.0	-
RCR-0400	Acrylic Latex	283.0	-	-	-
VM-885	Water Solution Acrylic	75.0	-	-	-
V-855-A	Alkyd	66.4	-	-	-
S-148	Refined Kerosene	12.0	-	-	-
CH-444	Balab 746	4.0	-	-	-
CH-447	Hercules #357	2.5	-	-	-
Colloids 581-B		-	4.0	do	2.0
S-14	Water	178.0	195.0	237.5	169.3

GLD004883