



Trade Sales

ELMWOOD RESEARCH CENTER
QUARTERLY RESEARCH REPORT
SECOND QUARTER, 1962

SUBJECT: Lead Free House Paint Primer - TR4201P3

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OBJECTIVES: To determine the critical P.V.C. and proper inerts in our experimental house paint primer, EGL-62006. This paint is 1W124 tinted to Bone White.

SUMMARY: Exposures have been started. Any final conclusions can only be made after reviewing these panels, when they have been exposed.

DETAILED RESULTS: EGL-62006, our experimental lead free house paint primer, was made using the following inerts: W-188, W-188-W-10, W-215, W188-W16, and W-188-W161. These paints were each made at 38%, 35% and 31% P.V.C. The purpose of this test is to determine the correct inert pigments, the proper level of inert and the best P.V.C. to give the maximum non-checking and cracking on exterior exposure.

Exposures were made on red cedar siding vertical south, red cedar 8" x 18" panels 45° south at New Orleans. Only red cedar siding was exposed at Cleveland.

All of these paints have better blister resistance than Y-1851. The brushing is excellent.

R. W. Green, F. D. Williamson, J. E. Southwick

mhd

GLD011660

Analytical

GLD011661

	Interpoly	RCR-5050
veh. NV	50.0 %	56.5 %
N ₂	1.5 % (of NV)	3.1 % (of NV)
T.D.I.	9.3 % (of NV)	19.3 % (of NV)
P.A.	12 % (of NV)	
F.A.	~ 65 % (of NV)	

47. Scuff-Resistant Paper Coating (Fleming-Potter Co.) - Nubian
The vehicle solids of this sample consists of three detectable components:

- 1) Nitrocellulose
- 2) Tricresyl Phosphate
- 3) A rosin-maleic adduct ester resin (such as VM-441)

Solvents present are a mixture of denatured ethanol, toluene, ethyl acetate, and methyl ethyl ketone:

		<u>Solvents</u>	
N.V.	31.9 %	Toluene	32.6 %
Nitrocellulose	31.9 % (of NV)	Ethyl Acetate	34.3 %
T.C.P.	25 % (of NV)*	Ethanol	30.5 %
VM-441	43 % (of NV)**	Methyl Ethyl Ketone	2.6 %

* approximately

** by difference

48. White Water Soluble Wood Primer (Tamms Ind. - for Plymouth Homes) - Nubian
The vehicle solids consist primarily of a vinyl acetate-acrylate copolymer (latex). Co-monomer used is n-butyl acrylate, and is present to an estimated 30 % of the copolymer.

There is present in the water phase, an unusually large quantity of a polyoxyethylene sorbitan mono-ester (such as Atlas' "tweens"). Also present is a quantity of a sodium polyacrylic thickener.

The volatiles present appeared to consist solely of water.

N.V.:	47.1 %	<u>Pigment</u>	
Veh. N.V.:	27.9 % (by calc.).	TiO ₂	51.2 %
Pigment:	26.6 %	PbO.PbCO ₃ .Pb(OH) ₂	29.1 %
Ash:	26.3 %	CaCO ₃	5.8 %
Water:	46.0 % (K.F.)	Silicates	9.7 %

49. #300 Dac-Proof, #301 Spra-Fill + #437 Colot Topcoat (Cooper Ind., Inc.)

Reading

#300 Dac-Proof

The vehicle solids of this sample consists of polymethyl acrylate polymer, only. The volatiles present are xylene, diacetone alcohol, and ethyl acetate. Pigmentation consists solely of phthalocyanine blue.