

Cross Index:

Pittsburgh Plate Glass Co.
Segregated Soya Oil
#500 Oil
Outside White
House Paint

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Philadelphia Laboratory
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REFERENCE COPY

PITTSBURGH PLATE GLASS COMPANY
#500 OIL IN HOUSE PAINT

NOT FOR CIRCULATION

This will cover the preliminary investigation of Pittsburgh #500 Oil in house paints for working properties and initial appearance. The material is exposed to determine the durability in Outside Whites in Series #9243.

Pittsburgh #500 Oil is a segregated soya oil. The sample in this investigation was DS-17036.

The oil was made up into a 35% pigment volume Outside White as a direct replacement for H-259 acid refined linseed oil. This is 75% of the oil in the paint, 25% being bodied linseed oil. The only change in the product caused by the use of Pittsburgh #500 Oil was that it showed more surface tack. Since drying is not a critical property in house paints, the substitution appears to be feasible if evidence of durability can be obtained.

Details:

The experimental paint is P-301-P-75133, for which a formula is attached. Other details will be found in Notebook 3146, pages 62 to 77.

In addition to a direct comparison with H-259 in a 35% pigment volume Outside White, the high oil 301-756 #40 Outside White and the oil saving 301-756 were used as controls. The paint with Pittsburgh #500 Oil was equal in ease of brushing to the 35% pigment volume control made with H-259 and to the oil saving 301-756. It was considered superior to the high oil 301-756, which showed too much slip under the brush. This observation is interesting as coming from an experienced painter, since it indicates that familiarity with the higher pigment volume products has begun to create dissatisfaction with the application properties of prewar house paints.

N 30701

In drying tests all the paints set to touch at 24 hours, but the paint with Pittsburgh #500 Oil retained a surface tack longer than the controls. The appearance was equal to the controls in color and gloss.

Stability remains to be determined, but no unusual difficulty is expected in this property.

PHILADELPHIA LABORATORY

W. F. Singleton
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WFS:MEH

P-301-P-75133
OUTSIDE WHITE WITH PITTSBURGH #500 OIL

W-16	FF Titanium Oxide	143
W-18	35% leaded zinc oxide	466
W-4	Asbestine	414
*DS-17036	Pittsburgh #500 Oil	333
VO-114	Bodied linseed oil	112
VD-1428	Lead Naphthenate	13
VD-1846	Mangansse Naphthenate	5
H-287	Mineral Spirits	<u>58</u>
Total - 100 gallons		1544

Pigment Volume

W-16	FF Titanium Oxide	5.0
W-18	35% leaded zinc oxide	10.8
W-4	Asbestine	<u>19.2</u>
		35.0

Binder

DS-17036	Pittsburgh #200 Oil	75
VO-114	Bodied linseed oil	<u>25</u>
		100

*Pound for pound replacement for H-259 acid refined
linseed oil