

CROSS INDEX:

Pigments Dept.
Calcium Carbonate Extender
House Paint
301-Line

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NOT FOR CIRCULATION

Philadelphia Laboratory
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MEMORANDUM REPORT #M-131

CALCIUM CARBONATE EXTENDER IN HOUSE PAINT

In Memorandum Report #M-101 dated March 19, 1947 paints prepared at the Philadelphia Laboratory with calcium carbonate and other calcium extenders are described in respect to their initial properties. It is stated in that report that somewhat poorer brushing is obtained from paints containing calcium carbonate but that the difficulty could probably be corrected by use of a false bodying agent.

A series of paints with calcium carbonate extender has been obtained from the Pigments Department for exposure in Texas on yellow pine in Series #9494. These paints are from the Pigments Department Exposure Series #8533, a copy of the exposure memorandum being in the Philadelphia Laboratory file.

The paints were tested for thinner content, brushing, leveling, visual gloss, A.S.T.M. gloss and hiding by the Pigments Department. A number of the paints are described as having good brushing.

In order to check this conclusion, four selected paints from Series #9494 have been brushed out in the laboratory. Paint #2, in which calcium carbonate is used as the extender in a high oil vehicle, is found to have very good application properties. This indicates that brushing will not be a difficulty if exposure series now in progress show the use of calcium carbonate to be desirable. Two paints with the oil saving vehicle which are reported as having good brushing in the Pigments Department's memorandum show only fair brushing according to our standards and show the usual drag on lapping in after five minutes. This is an effect of the oil saving vehicle rather than calcium carbonate.

The four paints are listed in the attached table together with original data reported by the Pigments Department and our observations on brushing.

PHILADELPHIA LABORATORY

William F. Singleton
WILLIAM F. SINGLETON

TABLE I. COMPOSITION & REPORTED GLOSS

Paint	Pigment - #/gal.		Asbestine	Calcium Carbonate	Mica	Pigment Volume	Vehicle *	Volume Solids	Gloss at 60°
	TiO ₂	Leaded Zinc							
1	1.27	4.24	2.97			28.5	High Oil	88.6	45
2	"	"		5.24		40.0	" "	90.3	35
7	"	"		5.52		48.2	Oil Saving	77.4	28
10	"	"		4.50	0.50	45.7	" "	76.3	16

TABLE II. BRUSHOUT IN PHILADELPHIA LABORATORY

<u>Paint</u>	<u>Stormer</u> <u>Original</u>	<u>As tested</u>	<u>Ease of Brushing</u>	<u>Lapping</u> <u>at 5 min.</u>
1	90	90	Good, Sl. thin	Very good
2	90	92	Very Good	" "
7	80	75	Fair	Very Bad
10	81	75	Fair	" "

* Vehicle:	High Oil - 92/8	alkali refined linseed	/ "Q" body linseed
Oil Saving 50/50	" "	" "	/ "X" body linseed