

ALLIED RESEARCH BULLETIN

NUMBER RC-59

WHITE LEAD

COMPARATIVE DURABILITY OF LEADING BRANDS

Prepared by: C. H. Adams

May 27, 1940

ALLIED RESEARCH LABORATORIES

CHICAGO, ILLINOIS

N12522

0007-SWP-000006829

White Lead - Comparative Durability of Leading Brands

General Statement

The purpose of this series of exposures was to establish any differences in durability of the leading White Leads and the effect, if any, of variations in the Carbonate to Hydrate ratio within the limits of commercial production.

Test Procedure

The various White Leads were ground in Linseed Oil and applied according to the standard "White Lead in Oil" practice, three coats on White Pine, vertical exposure, Chicago paint test farm. National White Lead in Oil was used as the guide on each panel.

Exposure Results

The exposure period of the main series was 3-1/2 years, sufficient to evaluate the important durability features. The MacGregor Lead constitutes an exception, the exposure periods being 2-1/4 and 1-1/2 years.

<u>No.</u>	<u>Brand</u>	<u>Color*</u>	<u>Chalking</u>	<u>Fissure Pat. 57</u>	<u>Cracking</u>	<u>Flaking</u>
1.	National O. D. High Carbonate	Std.	Considerable	Normal	Slight	Absent
2.	National H.T.S. Low Carbonate	Slightly whiter	Slight to considerable	Small	Slight	Absent
3.	National Carter High Carbonate	Equal	Considerable	Normal	Slight	Very slight
4.	Eagle Picher O. D. Medium Carbonate	Equal	Slight to considerable	Normal	Slight	Very slight
5.	S-W O. D. High Carbonate	Equal	Considerable	Normal	Slight to considerable	Slight
6.	S-W O. D. Low Carbonate	Equal	Considerable	Large	Slight	Absent
7.	S-W O. P. High Carbonate	Equal	Considerable	Normal	Slight	Absent
8.	S-W O. P. Low Carbonate	Very slightly whiter	Slight	Small	Slight	Absent

Cont. on next page.

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Exposure Results - Cont.

<u>No.</u>	<u>Brand</u>	<u>Color*</u>	<u>Chalking</u>	<u>Fissure Pattern</u>	<u>Cracking</u>	<u>Flaking</u>
9-A	MacGregor 2-1/4 Yrs.	Slightly whiter	Considerable	Irregular	Slight	Absent
9-B	MacGregor 1-1/2 Yrs.	Slightly whiter	Considerable	Linear	Slight	Very slig.
9-C	MacGregor 1-1/2 Yrs.	Slightly whiter	Slight	Large rectangular	Slight to considerable	Very sligh

*Comparison against National Old Dutch

Discussion of Results

No marked superiority of one Lead over another has been found.

Different lots of MacGregor Lead show irregularity of performance.

National H.T.S. Lead and the S-W similar type of Lead, No. 8, have given some evidence of superiority during the exposure period, but the difference at 3-1/2 years is not marked.

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