

LEAD INDUSTRIES ASSOCIATION

60 EAST 42ND STREET

NEW YORK 17, N. Y.

September 4, 1959

SUBJECT: LEAD PIGMENTS TECHNICAL
COMMITTEE MEETING

To Members of the Lead Pigments Technical Committee:

There will be a meeting of the Lead Pigments Technical Committee on September 30, 1959, at 9:30 AM in the offices of the Association.

An agenda for the meeting follows:

1. Approval of minutes of previous meeting of June 30, 1959.
2. Report by Owen F. Shobe.
3. Recommendations for research in the field of lead pigments. Please come prepared to discuss specific research projects that you feel desirable and, in particular, those recommended at the June 30 meeting. (See minutes.)
4. Consideration of 1960 budget.

(a) Test Projects Should new test projects be instituted and, if so, in what areas.

(b) Advertising We are now using seven monthly pages in two colors in both "Engineering News-Record" and "Marine Engineering/Log." Should this schedule be maintained or should other magazines be considered, such as "Roads and Streets" and "Maritime Reporter."

There appears to be considerable interest in yellow traffic marking paint for the edges of roads. Should we consider advertising this product and, if so, what magazine would be most effective.

(c) Red Lead Technical Letters Consideration of subjects for "Technical Letters" to be published in 1960. LIA Project R3 is suggested as the subject for one of these future "Technical Letters."

Red Lead Technical Letter No. 1A, LIA Formula 308, A Red Lead - Comarone Type Primer for Seawater Immersion, will be ready for distribution by September 30, 1959. A compilation of all previous "Technical Letters" was approved for distribution in 1959 but has not yet been prepared.



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(d) Other Suggestions for 1960 Activities

5. Preparation of Red Lead Technical Letter No. 15. The committee will review all past "Technical Letters" and will recommend those points to be included. The format will be as outlined in Mr. Bates' letter, sent to committee on October 21, 1958, and approved by the committee. Please bring along your copies of Red Lead Technical Letters 6 through 13.
6. Summaries of Inspection Tests.
 - (a) LIA Project 23 (Still on exposure.) Summary of test results from Chalmette, La., attached.
 - (b) LIA Project 24 (Terminated.) Summary of final results from Joplin, Mo., and Chalmette, La., attached.
 - (c) LIA Project 25 (Terminated.) Summary of final results from Joplin, Mo., and Chalmette, La., attached.
 - (d) LIA Project 26 Exposure data from Perth Amboy, N. J., attached.
7. Evaluation of LIA 9-2 Paint by Metallizing Engineering Co. (Attached).
8. Next meeting date.

Sincerely yours,

David M. Borcina
David M. Borcina, Secretary
Lead Pigments Technical Committee

SUMMARY OF TEST RESULTSLAIA PROJECT NO. 23 (still on exposure)

Exposure: Chalmette, La. 45° South, Sandblasted Steel.

Time: 36 months.

This study of synthetic vehicles for red lead primers cover a variety of alkyds, catalyzed epoxies, esterified epoxies, and synthetic rubber vehicles. Of these vehicles, the Hypalon-20 (chloro-sulphonated polyethylene) was the poorest with respect to rust. The one-coat areas of both primers (No. 524 and No. 525) based on Hypalon-20 had failed completely after one year. The amine cured epoxy primer (No. 511, 512 and 513) are showing slightly more rust than the other remaining in the series with the exception of the TT-P-86a, III control, which is slightly poorer.

Additional exposure will be necessary to separate these others in performance. As a class, the vehicles containing epoxy are chalking slightly more than the others. The two #116 formulations with the isophthalic modification are showing practically no chalk (No. 505 and No. 506).

LAIA PROJECT NO. 24 (terminated)

Exposure: Joplin, Mo. - Chalmette, La.

Time: 22 months

Project No. 24 was exposed to evaluate the effect on the wettability of TT-P-86a of several vehicle modifications. Type I was exposed with the specification vehicle, FFG fractionated linseed, O'Briens thermolized tung oil and with 5% Pb naphthenate added to the vehicle solids. Type II was exposed with only the specification vehicle and the 5% Pb naphthenate addition. A proprietary primer, Blackled O, was included. All exposures were one prime coat on sandblasted steel, 50% rusted and 100% rusted hot rolled steel.

The Blackled O showed early and complete failure and was definitely not in the same class as the other primers. The Joplin exposures of the other primers showed no significant differences in performance. At Chalmette where conditions are more severe, the Type II primers were slightly better than the Type I. The differences among the vehicle modifications were very slight and no conclusions can be drawn except in the case of the thermolized tung which appeared slightly poorer than the others.

LAIA PROJECT NO. 25 (terminated)

Exposure: Joplin, Mo. - Chalmette, La.

Time: 20 months

This project was exposed to compare the performance of Calcium Plumbate and Rustoleum No. 769 with several red lead primers and TT-P-641b, Type I. Exposures were one and two coats of primer, top-coated and untop-coated on solvent washed new galvanized and on 100% rusted steel.

At both locations the calcium plumbate and Rustoleum primers showed severe flaking on the galvanized panels where the other primers did not. The calcium plumbate paint also showed cracking. On the rusted surface, the Rustoleum gave the poorest performance at Chalmette, La. with the calcium plumbate almost as bad. At Joplin, Mo., the calcium plumbate was slightly poorer than the Rustoleum. All of the other primers were significantly better and showed very little differences among themselves at either location.

L.I.A. PROJECT NO. 86

Exposure: 15° South
 Perth Amboy, N. J.

Exposed: November, 1958
 Inspected: June, 1959

<u>LIA PAINT</u>	<u>PRIMER (ONE COAT)</u>				<u>PRIMER (TWO COATS)</u>			
	<u>SAND BLASTED</u>		<u>WIRE BRUSHED</u>		<u>SAND BLASTED</u>		<u>WIRE BRUSHED</u>	
	<u>CHALK</u>	<u>RUST</u>	<u>CHALK</u>	<u>RUST</u>	<u>CHALK</u>	<u>RUST</u>	<u>CHALK</u>	<u>RUST</u>
2601	20	20	20	20	20	20	20	20
2602	6	20	6	1 1/2	6	20	6	9 1/2
2603	20	20	20	20	20	20	20	20
2604	10	20	20	20	20	20	20	20
2605	20	20	20	8	20	20	20	9 1/2
2606	20	20	20	9 1/2	20	20	20	20
2607	6	20	6	8	6	20	6	20
2608	6	20	6	8	6	20	6	20
2609	20	20	20	9	20	20	20	20
2610	20	20	20	8 1/2	20	20	20	20
2611	20	20	20	8 1/2	20	20	20	20
2612	20	20	20	9 1/2	20	20	20	20
2613	20	20	20	9	20	20	20	20
2614	20	20	20	6	20	20	20	20
2616	20	20	20	8 1/2	20	20	20	20
2617	20	20	20	8 1/2	20	20	20	20
Type IV (a)	6	20	6	20	6	20	6	20
Type IV Fine (b)	7	20	6	9 1/2	6	20	6	20

NO PAINTWORK ON REST OF PANELS

TOPCOAT: L.I.A. 2615

Exposure: 45° South (Continued)
Perth Amboy, N.J.

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LIA #2601 - T2-P-86a, I
LIA #2602 - T2-P-86a, I + Glidden add.
LIA #2603 - T2-P-86a, II
LIA #2604 - T2-P-86a, II + Glidden add.
LIA #2605 - T2-P-86a, III
LIA #2606 - T2-P-86a, III + Glidden add.
LIA #2607 - T2-P-86a, IV
LIA #2608 - T2-P-86a, IV + Glidden add.
LIA #2609 - M-50 Primer
LIA #2610 - M-50 Primer + Glidden add.
LIA #2611 - T8060, R.L., ZnO, M-50
LIA #2612 - T8060, R.L., ZnO, M-50 + Glidden add.
LIA #2613 - T8136, R.L., Ext.
LIA #2614 - T8136, R.L., Ext. + Glidden add.
LIA #2615 - M-50
LIA #2617 - M-50 + Glidden Additive
Type IV (a) - T2-P-86a, IV using phenolic varnish as in L. I. A. 2623
Type IV (b) - T2-P-86a, IV using phenolic varnish as in L.I.A. 2625,
plus Glidden Additive.

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YMETALLIZING ENGINEERING COMPANY, INC.
1101 Prospect Avenue, Westbury, N. Y.

July 8, 1959

Lead Industries Association
60 East 42nd Street
New York 17, N.Y.Attention Mr. David M. Borcina

Dear Mr. Borcina:

Thank you for your letter of July 2, requesting our test results of L.I.A. Formula 9-2 Paint. We received the sample in January and applied it to our metallized zinc and metallized aluminum coatings. It was our desire to determine, if possible: (1) the compatibility of this primer with sprayed aluminum and zinc, (2) whether or not this primer could be used as a substitute for a two part wash coat primer now in use on sprayed metal and if so, its compatibility with vinyl top coats now in use.

Our tests are not accelerated but consist of immersion of test coatings in an aerated, 2% salt solution. We find poor adhesion of our vinyl top coats to the L.I.A. primer. Without the benefit of top coats, we found the L.I.A. 9-2 Primer gone at the liquid level and the zinc corroding after a few weeks in test. We do not hold the L.I.A. 9-2 Primer at fault since this has been our experience with most paints applied over sprayed zinc. Apparently the sprayed zinc is in a very active state and reacts strongly with some of the constituents of the paint and the salt present in the solution. The performance of the primer on sprayed aluminum was better than on the zinc but no improvement over our vinyl systems now in use.

We feel the results of our tests in no way cast any reflection on the L.I.A. 9-2 Primer but is primarily a condition that exists on metallized surfaces and must be handled as a separate problem.

Thank you for your cooperation in this matter.

Very truly yours,

METALLIZING ENGINEERING CO. INC.

G. J. DUBIANN (SIGNED)

DEVELOPMENT ENGINEER

GJD:p