

LEAD INDUSTRIES ASSOCIATION

480 LEXINGTON AVENUE

NEW YORK 17, N. Y.

RED LEAD DIVISION

June 10, 1948

To Members of the Red Lead Technical Committee:

SUBJECT: Red Lead Primer for Test under Bituminous Paint
for Total Immersion - Panama Canal.

It was decided at the Red Lead Technical Committee Meeting on March 20, 1948, to supply ten gallons of primer for use under cold application bituminous coatings for total immersion tests at the Panama Canal, as requested in a letter dated March 12, 1948 from Colonel Stratton, Supervising Engineer. This paint, LIA 316, has been prepared by the Eagle-Picher Company and shipped to Panama for test. The attached letter, instructions and detailed formulation has also been sent to Colonel Stratton, Special Engineering Division, Panama Canal.

Very truly yours,

C. J. Vander Valk
C. J. Vander Valk
Technical Director



N2794

C O P Y

LEAD INDUSTRIES ASSOCIATION
420 Lexington Avenue
New York 17, N. Y.

June 9, 1948

Colonel James H. Stratton, C. E.
Supervising Engineer
Special Engineering Division
Department of Operation and Maintenance
Panama Canal
Diablo Heights, Canal Zone

Dear Colonel Stratton:

SUBJECT: Red Lead Primer for Application under
cold Application Situations Paint.

RE: Your letter of March 12, 1948

Dear Colonel Stratton:

You have been informed by Mr. Gatti's letter of April 30, 1948 of the shipment of red lead base primer for use under cold applied bituminous or asphalt type coatings for continuous submersion at Fort Amador. Full details regarding the application and the formulation of this paint(LIA No. 316) are enclosed.

This mixed pigment formulation is recommended by the Red Lead Technical Committee of the Lead Industries Association over sandblasted steel for direct application and application over WP - 1 Wash Coat.

We have endeavored to furnish all of the necessary information on this paint. However, if you require any additional information please feel free to write us.

Very truly yours,

/s/ C. J. Vander Valk

/t/ C. J. Vander Valk
Technical Director
Red Lead Division

Encls.

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L.I.A. PAINT NO. 316 Vehicle

60% LV - 257 Varnish

40% Medium Linseed Oil Modified Alkyd Resin

LV - 257 Composition

This is a six gallon, 100% linseed oil (2₂ Viscosity) varnish, containing in the resin portion 50% by weight of Omar V-2₁ and 50% tertiary-butyl phenolic resin (BRO432).

30 Cooking procedure: Heat Oil and resin to 550°F for 30 minutes, hold for body (approximately 45 minutes), cool to 400°F; add drier. Allow temperature to drop to 300°F and add thinner. Thin with Soluesso #2 to 60% total solids. Viscosity 0 to 1.

Alkyd Composition

This alkyd conforms with type called for in U.S. Maritime Commission Specification MC-52-A-1, class XIII, October 26, 1942 (Olyptal 2454). This is marketed as a 50% solution in mineral spirits.

Viscosity: 1-2
Color: 5 (Hellige)
Acid Number: 5 (maximum)

L.I.A. PAINT NO. 316 - DETAILED FORMULATION

Type of Exposure - Continuous submersion in sea water.

Surface preparation - Sandblasted.

PIGMENT - 64.84%	WEIGHT %	WEIGHT %	POUNDS FOR 100 GALS.	POUNDS PER SOLID GALS	GALS.
Red Lead(97% Grade)	40.0	26.0	437.0	74.0	5.90
Sublimed White Lead	30.0	19.5	327.0	55.6	5.00
Mica(325 Mesh)	15.0	9.8	164.0	23.6	6.95
Magnesium Silicate	10.0	6.5	108.0	23.8	4.51
Iron Oxide(85% Fe ₂ O ₃)	5.0	3.2	53.2	37.2	1.44
TOTAL VEHICLE - 35.16%	100.0				
LV-257 Varnish	60.0	21.0	350.0	7.8	44.80
Alkyd Resin Solution	40.0	14.0	235.0	7.7	30.60
TOTAL	100.0	100.0	1674.2		100.00

PV = 40

Weight per gallon = 16.7 pounds

Consistency in Krebs Units = 84

LEAD INDUSTRIES ASSOCIATION
420 Lexington Avenue
New York 17, N. Y.

SAMPLE OF: Red Lead Base Primer
PAINT NO: L.I.A. 316
REFERENCE NO: PR 15
DATE: 6 - 1 - 48
YOUR REFERENCE: Special Engineering Division letter of 12 March 1948
(Colonel James M. Stratton).
SPECIFIC USE: On iron and steel for total immersion exposure.
assumed. Topcoat to be bituminous.
SURFACE PREPARATION: Sandblasted.
DRYING TIME BETWEEN COATS: 48 hours.
SPREADING RATE: Apply at spreading rate of 650 square feet per
gallon of paint.

NOTE: This paint is to be applied after the surface has been prepared as indicated. The area to be painted is to be divided equally. One half of the area is to be treated with Wash Coat WP - 1 applied at the rate of 300 square feet per gallon to obtain a dry film thickness of 0.3 mils. The other half of the area is to be painted after preparation and without the application of a wash coat.

REDUCTION: Brush Application - Paint is furnished at the proper consistency for brushing. If reduction is necessary, use only the smallest quantity of Mineral Spirits to obtain satisfactory brushing.

Spray Application - Reduce with Mineral Spirits. Adjust the spreading accordingly in order to obtain the desired film thickness. For example: If reduced with 1/5 thinner (one volume thinner to five volumes paint) then use 1/6 more paint per unit area.

WIX PAINT THOROUGHLY BEFORE APPLICATION