

LEAD INDUSTRIES ASSOCIATION, INC.

292 MADISON AVENUE

NEW YORK 17, N.Y.

February 28, 1962

SUBJECT: SUGGESTED COPY
FOR NEWSLETTER
AD NO. 3

To Members of the Lead Pigments Technical Committee:

I am attaching suggested copy, in duplicate, for the Lead Pigments Newsletter Ad No. 3.

Please indicate your comments or approval on one of the copies enclosed and return it to me as soon as possible.

If I do not hear from you by March 9, I will assume that it meets with your approval.

Sincerely yours,

David M. Borcine
David M. Borcine

DMB:BNM

TO: Messrs: R.P. Bates

E. H. Butsow

M. E. Elmore

R. W. Quonell

Paul Whitford

Dr. L. L. Carrick, Chairman

E.K. Zimmermann


Look Ahead with Lead

LEAD PIGMENTS NEWSLETTER NO. 3

A practical combination of corrosion resistance and color durability in a single paint eluded formulators of metal finishes until only a few years ago. Today the combination is readily achieved through the use of basic lead silico chromate, a chemical complex of monobasic lead chromate and gamma tri-basic lead silicate. The basic lead chromate - with its anticorrosion and color retention properties - is securely bonded to the surface of film-forming particles of lead silicate. Extensive testing and field applications have shown results that warrant investigation of this pigment by formulators of metal finishes for incorporation in their own formulations.

For High Performance Top Coats

Anticorrosive pigments often have shortcomings which make their use unusual in the formulation of finish coats. Basic lead silico chromate is appreciably "different." Despite its dull orange color (derived from its lead chromate content) its tinting strength is low compared to that of the conventional lead chromates of commerce. This property allows the orange to be easily masked by strong whites and/or colored tinting pigments, permitting a wide range of hues from pastels to darkest colors. The darker the color desired, the higher may be the content of basic lead silico chromate. Throughout the wide color range, color retention, upon weathering, is generally excellent. Further the film wears down slowly, maintaining the thickness needed as a barrier for mechanical protection of the primer and the metal substrate.

There are thus three good justifications for anticorrosive finish formulations of this type: An active anticorrosive finish serves to heal breaks or holidays in a primer. It augments the rust inhibitive function of the primer.

And it does these things often more economically because of high bulking values than a conventional top coat which may or may not compare for lasting decorative properties.

In Primers for Varied Uses

In primers, too, formulated with all currently used commercial vehicle types, basic lead silico chromate is proving to be effective as an anticorrosive pigment in paints for structural steel (bridges, water tanks, buildings), marine environments (structures and vessels), and such heavy industrial applications as chemical plants and oil storage tanks. For these uses basic lead silico chromate must be formulated with the proper vehicle for the environment, with effective amount determined by the type of formula, the durability sought, and the economics. For example, for structural steel priming, a substantial amount of free-drying oil must be used to obtain an adequate degree of surface wetting. The concentration of basic lead silico chromate should be fairly high (above 60 per cent of the pigmentation) for optimum performance. Even small amounts in a primer have been demonstrated, however, to improve protective properties materially.

Possibilities

Ten years of testing have shown this relatively new lead pigment to have certain advantages in a variety of formulations for finish coats, intermediates and primers for bridge and highway structures, buildings, tanks and other applications under a wide variety of exposure and decorative conditions.

Basic lead silico chromate is covered by A.S.T.M. Product Specification D1648. General Services Administration has published a specification TT-P-615b, covering four primers for a variety of uses, utilizing basic lead silico chromate.

Lead Pigments Newsletter
No. 3

-3-

The Army Ordnance Department has a special specification for an epoxy coating requiring this pigment.

Basic lead silico chromate offers imaginative paint formulators who can take advantage of its anticorrosive, color retention, low tinting strength and relatively high bulking properties many opportunities in solving present problems or finding new markets. Its possibilities are only beginning to be realized.

For technical data on this and other lead pigments, simply write: Lead Pigments Technical Committee, Lead Industries Association, Inc., Dept. _____, 292 Madison Avenue, New York 17, N.Y.

(The following table will also be included in the ad)

Physical Properties

Color	Orange
Specific gravity	4.1
Lb. per solid gallon	34.2
Gallons per pound	0.0293
Oil absorption	13 to 15
Coarse particles (325 mesh)	0.1%
Lead oxide (PbO)	47.0%
Silica (SiO ₂)	47.6%
Chromic oxide (CrO ₃)	5.4
