

Specifications:

The following specification formulae have recently been developed:

Army-Navy Aeronautical Specification AN-E-13
Lustreless Synthetic Enamel (For Ground Equipment)

Grade I (Oil modified alkyd resin base)
#319 Olive Drab - RGL-21993

Grade II (Oil modified semi-alkyd resin base)
#614 Orange Yellow - RGL-17844-A

Work is continuing on attempting to improve the stability of Army-Navy Aeronautical Specification AN-P-656 Zinc Chromate Primer, RGL-19885.

(W. Bivans)

Specifications T-1279-D - T-1213-C

All the first production batches of the colors in these specifications as listed in last month's report have been rechecked for most of the involved requirements. With a few exceptions, all the formulas meet the pertinent parts of the specifications, such as emulsification, heat stability, infra red reflectance, opacity, miscibility with water or gasoline, drying time, and accelerated weathering. Shortly new formula revisions will be issued which will correct the deficiencies where they occur. Everyone is warned to make certain before manufacturing that our latest formula is being used so that any final revision is taken advantage of.

TiO₂ Conservation in Syndicate Materials

Syndicate White Enamel W-3375 and Syndicate S.Q. Base RGL-19627-E have all been reformulated with considerably less titanium dioxide and increased lithopone. Since these products are manufactured in considerable volume, there will be an appreciable saving of the scarce titanium products.

Cost Reduction in Syndicate White Paint W-3275

This formula has recently been changed to use 2-KB-451 in place of V-539 to result in a saving of 3 1/4 cents per gallon. Since this is the largest selling Syndicate paint, the resultant profit from this reformulation will be considerable.

Syndicate Florenamel RGL-19627-E

This formula has recently been changed to use a straight alkyd 2-KB-369, which shows tremendous improvement in durability and gloss retention compared with the previously used V-872 - V-357 combination. This change also resulted in a 5 cents per gallon saving.

(R. D. Canfield)

Marine Exposures - A Study of Metal Primers and Boottoppings

The following primers are included in this study:

1. RGL-19793-A - Yellow Anti-Corrosive Primer (Cherry Valley Type)
2. RGL-18351 - Red Lead Mixed Pigment Primer (Spec. 52-MC-201)
3. Y-506-H - Ready Mixed Red Lead in Oil
4. Y-562 - #1525 Chromate Primer
5. RGL-19519-A - Synthetic Paint Primer (TT-P-636)
6. RGL-20800-A - Red Lead Mixed Pigment Phenolic Primer
7. RGL-20837-A - Alkyd Type Chromate Primer (Spec. 52-P-18)

The following were the topcoats used:

1. RGL-19794 - Red Boottopping (Cherry Valley Type)
2. 18-R-723-A - Red Boottopping (San Francisco Type)
3. B-6154 - Special Red Boottopping (Regatta type)

After six months' exposure in Florida at Tide Range, Exposure Y-562 and RGL-19793-A gave the best performance in the case of primers, but RGL-19793-A was considered too brittle to be practical.

RGL-19519-A and RGL-20800-A were the poorest panels, with RGL-19519-A the worst.

Other primers were rated as fair, with RGL-18351 being the third best in appearance.

There was considerable rusting at the edges in the case of all panels, but this effect was neglected in rating for performance.

The B-6154 Special formula was the best appearing topcoat, showing good gloss and color retention. The San Francisco type 18-R-723 showed considerable color change and loss of gloss.

After observing the results of these exposures, it was decided that further examination should be made of a system using Y-562 and a vinyl metal conditioner.

The following systems will be prepared for further Tide Range Exposure:

Primers RGL-19519, RGL-20800-A, and Y-562, both with and without a base coat of RL-9695 Metal Conditioner.

A special Y-562 using some zinc chromate and mica -- to be used alone and with RL-9695.

A combination of Y-562 with and without RL-10671 (Lead Chromate WP-1), RGL-21275 (Victory System WP-1), Vinyl Formal Wash Primer, and RL-9790 regular Vinyl Chromate Primer.

The topcoat used in all cases will be B-6154 Special (Regatta type Red Boottopping).

All panels are of course exposed in Reading as well as in Florida.

(A.K. Long)

RL-10221-A White Gloss Baking Enamel

The above formula was developed for Crown Cork & Seal Company to be used in the interior of screw caps.