

PRODUCT DEVELOPMENT REPORT
PAINT, VARNISH & LACQUER LABORATORIES
MAY, 1959

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TRADE PRODUCTS LABORATORY
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Five lots of Titanox RA-50 and eight of Titanox RA from Canadian Titanium Pigments, Ltd. were checked as substitutes for W-201 in Spred Satin production in Toronto. All the lots of Titanox RA-50 were much too reactive with high heat test bodies. All the "RA" lots produced satisfactory initial viscosities coupled with rather high heat-test bodies. The Titanox RA may be usable with some additional correction beyond the 195-T-24 adjustment based on the soap titration. Cutting the W-150 by 50% and the 195-T-12 to zero appeared to bring the initial bodies to a proper range and should be applied to plant batches until some data is accumulated on the necessity of 195-T-12 in the formulation with Titanox RA.

The preshipment sample of Naugatuck 2733 latex, control 5674-B, performed satisfactorily in laboratory batches. Shipment of 20 drums to Cleveland for a trial run in Satin was authorized on May 5. This latex will be used as an alternate for VM-725 in the Satin formulas if performance proves it satisfactory.

Replacement of W-150 in Cleveland Spred Satin by 100 pounds W-188 plus 20 pounds W-154 for 100 pounds of W-150 has proceeded since April 15, 1959. Storage viscosities of seven plant productions of various Satin colors are satisfactory after four weeks. By the end of May the Cleveland plant was out of W-150 and due to the W-150 shortage all Satin production was scheduled on the basis of 100 pounds W-188 plus 20 pounds W-154 for 100 pounds W-150. Six 1/4 gallon retains have been kept on all productions to date. Four Satin productions in April used 120 pounds W-217 for 100 pounds W-150 but the storage viscosities showed greater drops than with the W-188/W-154 combination. Long range research on Satin viscosity stability envisions the replacement of W-189 with a more uniform inert at a sizable savings in raw material costs.

The sample of "Green Stuff" lawn paint from Krieger Color and Chemical Company was matched in a new quality and color (XM-59044). The color is a very deep transparent green supposed to match Bermuda grass, not domestic grass as matched by XM-59011-A. Interest in lawn paints is very high in Texas and the Southwest.

The potential production of Spred Satin with the Cowles-Morehouse combination is very promising. With paste exit temperatures no higher than 110°F. very smooth, non-foamy Satin was produced in the laboratory Morehouse. The paints showed better dispersion of the mica than pebble mill batches. Substitution of W-150 by W-188/W-154; W-189 by W-188; and W-158 by W-188, Ruby Talc #400 or Desert Talc #54 all produced good results in body and paint appearance. Further work in the laboratory Morehouse mill is scheduled with full scale Satin production dependent on the schedule for the factory Morehouse mill.

P. V. Kunz

Lead Free Japalac -- A decision has been made to change the colors of Y-1230 Golden Yellow and Y-1254 Empire Green in order that the lead-free formula will not have excessive cost. Plants have been ordered to stop manufacturing Y-1230 and Y-1254 in order that the new color can be announced by August 1. Y-1252 Orange will be dropped since the same color is available in the Speedenamel line. Work has been started on Y-1207 Black to remove the VM-308. We are planning to make Y-1207 a straight phenolic or phenolic modified alkyd to obtain a proper drying lead-free formula.

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Lead Free Spred Lustre and Speed Wall Flat -- Our Reading plant has been issued lead free formulas for both Spred Lustre and Speed Wall Flat. Eventually these formulas will be issued to all plants. We are working on a hansa tinting base but have had crystallization difficulty when using YW-125 in the 318 line vehicle. Our laboratory grinds of 318-Y-125 have lost tinting strength and produces a dirty brownish tint tone. We are contemplating buying out Hilton Davis hansa flush color 5-24-A-215. Preliminary tests indicate lower tinting costs and cleaner color when using the Hilton Davis flush color.

Silicone Marine Enamel -- A 100 gallon batch of GL-70535 Silicone Marine Enamel is being manufactured and will be sent to all regions for field testing.

J. E. Southwick

PVK-JES/lms
6/9/59

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