

93 Line Enamels
RC-103
Project P-1053

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EFFECT OF BATCH VARIATION IN
RC-103 RESIN ON DRY TIME OF 93 LINE ENAMELS

It had been presumed for some time that various batches of RC-103 (High C.W.O. Formula) affected the drying characteristics of fast air dry enamels. In order to determine this experimentally several batches of RC-103 were examined in the 93-005 formula. It was concluded from this study that batch variation has a marked effect on the drying (tack free time) of a fast air-dry enamel. It was also concluded that none of the resin properties which are currently examined can be correlated to the variation in dry time. It may be noted that there was no appreciable variation in dry time stability. It was also determined that there was no variation in ~~tack~~^{tack} free time.

The resin batches used in this study were 36195, 35053, and 33882; the standards for these are listed in Table I. Curves showing a comparison of the original drying time with batch variation as well as effect on drying time stability are attached to this report. The experimental data may be found in Notebook No. 5046, pages 15-17 inclusive.

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LC:EMB

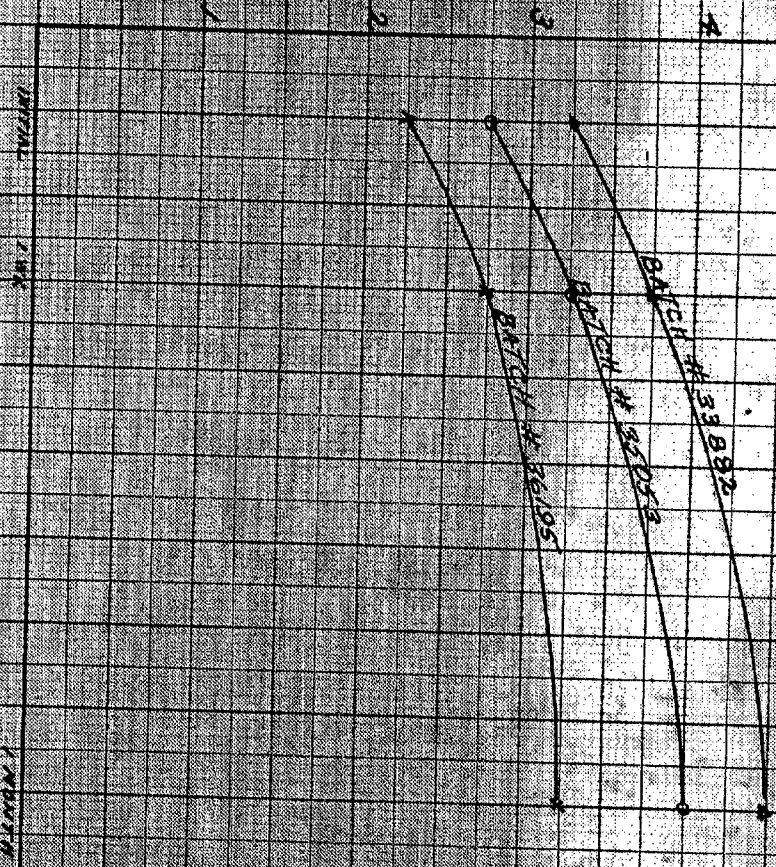
TABLE I

<i>Initial</i> T F Ans.	<u>Batch No.</u>	<u>SP. Grav.</u>	<u>Color</u>	<u>Viscosity</u>	<u>Solids</u>	<u>Acid No.</u>
	Standard	7.95 $\pm$ 0.05	4 $\pm$ 0.5	X-Z	50 $\pm$ 1%	19 $\pm$ 3
2 1/4	36195	7.92	4.5	Y γ	50.4	16.0
2 3/4	35053	7.92	4.5	1/2 H-X $\times$ 1/2	49.8	17.3
3 1/4	33882	7.90	4.2	1/2 L-Y $\times$ 1/2	50.3	17.3

DRYING CHARACTERISTICS OF 98-005

BATCH VARIATION OF ACI03 RESIN

TACK FREE TIME (HOURS)



STORAGE AT 120°F