

Cross Reference:

"INDEXED"

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Flintflex 153 & 154 Lines
TiO₂ Conservation

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USE OF RUTILE TiO₂ IN FLINTFLEX

REFERENCE COPY

In order to conserve TiO₂ pigments, some experiments were conducted on several Flintflex tints in order to find out if the W-16 could be replaced with W-28 Rutile TiO₂ which is considerably stronger in tinctorial strength than W-16. The formulas selected for the tests were 153-511 Gray, 153-526 Green, 153-503 Light Gray and 153-5209 Medium Gray. The W-16 pigment was replaced with W-28 on an equal hiding basis.

The following table will indicate the percentage of TiO₂ pigment saved by the substitution and the pounds of TiO₂ saved per gallons of enamels:

<u>Code</u>	<u>% TiO₂ Saved</u>	<u>lbs./gal. TiO₂ Saved</u>
153-511	29%	0.1 lbs./gal.
153-526	50%	.57 " "
153-503	49%	1.1 " "
153-5209	18%	.08 lbs./gal.

The gloss, hiding, drying properties and initial film properties of all the enamels were equal and on flowouts the flooding characteristics of the W-28 containing formulas were as follows:

153-511 - very slightly worse, 153-5209 - slightly worse, 153-526 - equal, and 153-503 - less. The flooding differences are small and are not serious enough to condemn this change of pigmentation.

The data on these experiments may be found in notebook #3047. Investigation WI-632 has been issued for this work and this investigation has not as yet been answered so that more work may be done on this subject if it is desired.

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