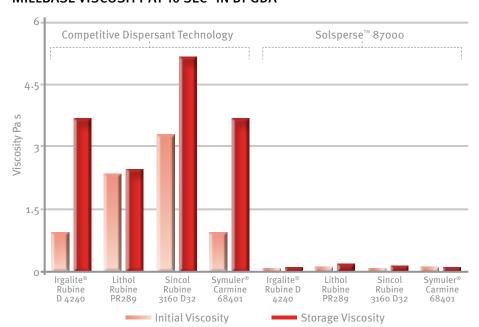


Solsperse[™] 87000 is a 100% active polymeric dispersant specifically designed to improve the storage stability on Pigment Red 57.1 in UV systems to prevent gelation.

MILLBASE VISCOSITY AT 10 SEC-1 IN DPGDA



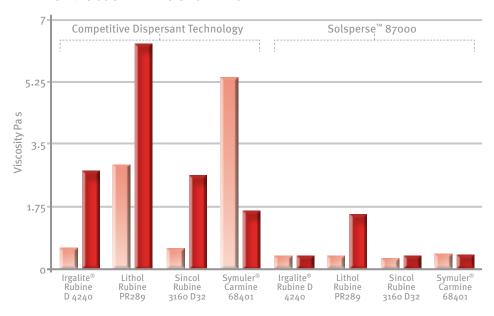
This graph compares the initial viscosity and that after storage of dispersions in DPGDA using Solsperse™ 87000 with that of a leading competitive dispersant technology. The test was conducted on 4 pigments and each dispersion was milled on a skandex shaker for 2 hours and stored for 3 weeks at 50 °C. The formulation used is:

- 25% Pigment Loading
- 15% AOWP
- DPGDA

WHAT WE ADD MAKES THE DIFFERENCE.™

- 100% ACTIVE
- FLOWABLE LIQUID
- EXCELLENT VISCOSITY STABILITY
- WORKS ON WIDE RANGE OF RED PIGMENTS
- PARTICULARLY EFFECTIVE FOR PR 57.1
- SUITABLE FOR SOLVENT-BASED SYSTEMS
- SUITABLE FOR UV AND OTHER 100% SYSTEMS

MILBASE VISCOSITY AT 10 SEC⁻¹ IN EO-TMPTA

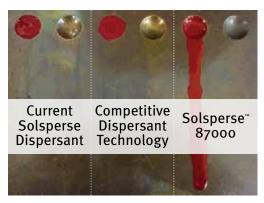


This graph compares the initial viscosity and that after storage of dispersions in Ethoxylated TMPTA using Solsperse™ 87000 with that of a leading competitive dispersant technology. The test was conducted on 4 pigments and each dispersion was milled on a skandex shaker for 2 hours and stored for 3 weeks at 50 °C. The formulation used is:

- 20% Pigment Loading
- 15% AOWP
- EO-TMPTA

Initial Viscosity
Storage Viscosity

BRASS PLATE FLOW TEST - 5 SECONDS



The brass plate flow test was conducted using millbases which had been in the oven at 50 °C for 3 weeks.

The first millbase was dispersed with a current Solsperse[™] dispersant, the second with a leading competitive dispersant and the third with Solsperse[™] 87000 dispersant.

Formulation details:

- 25% Pigment loading Irgalite Rubine D4240
- 15% AOWP
- DPGDA

- 2 hours milling on a skandex shaker
- 3 weeks millbase storage at 50 °C
- 5 second brass plate test







The pictures above show prints made from millbases before and after storage at 50 °C for 4 weeks using Solsperse™ 87000 and the UV flexographic printer used to print them.

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Sincol Rubine 3160 D-32 is a trademark of Union Colours.
Lithol Rubine PR-289 is a trademark of Lansco Colors.
Symuler® Carmine 6B 401 is a registered trademark of Sun Chemical.

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