



Ethox

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TECHNICAL BULLETIN

E-SPERSE 506

Patent Pending

PERFORMANCE BENEFITS:

E-Sperse 506 is a novel dispersant that shows dramatic viscosity improvement characteristics in water based systems. This allows for higher pigment loadings and increased dispersion stability. Marked reduction of pseudoplastic behavior and minimization of viscosity increases upon aging are notable features of E-Sperse 506.

- APE-free composition
- Water based formulas
- Provides substantial viscosity reduction of pigmented millbases
- High pigment loadings possible
- Viscosity and color stability
- Efficient – low use levels are optimum
- Suitable for all organic pigments such as phthalocyanine blue, diarylide yellow, carbon black, and lithol rubine

APPLICATION DATA

During premixing, blend 0.5 – 2.5% E-Sperse 506 (actives on total weight of formulation) with other liquid formula components. Mix well to incorporate. Add pigment and mix thoroughly before milling.

<u>PIGMENT</u>	<u>LOADING</u>	<u>OPTIMUM USE LEVEL (Percent active)</u>
Phthalo blue (PB 15:3)	38% pigment	2% E-Sperse 506
Lithol rubine (PR 57:1)	37.5% pigment	1% E-Sperse 506
Diarylide yellow (PY 14)	36% pigment	1% E-Sperse 506
Carbon black	37.5% pigment	2% E-Sperse 506

Innovation & Quality

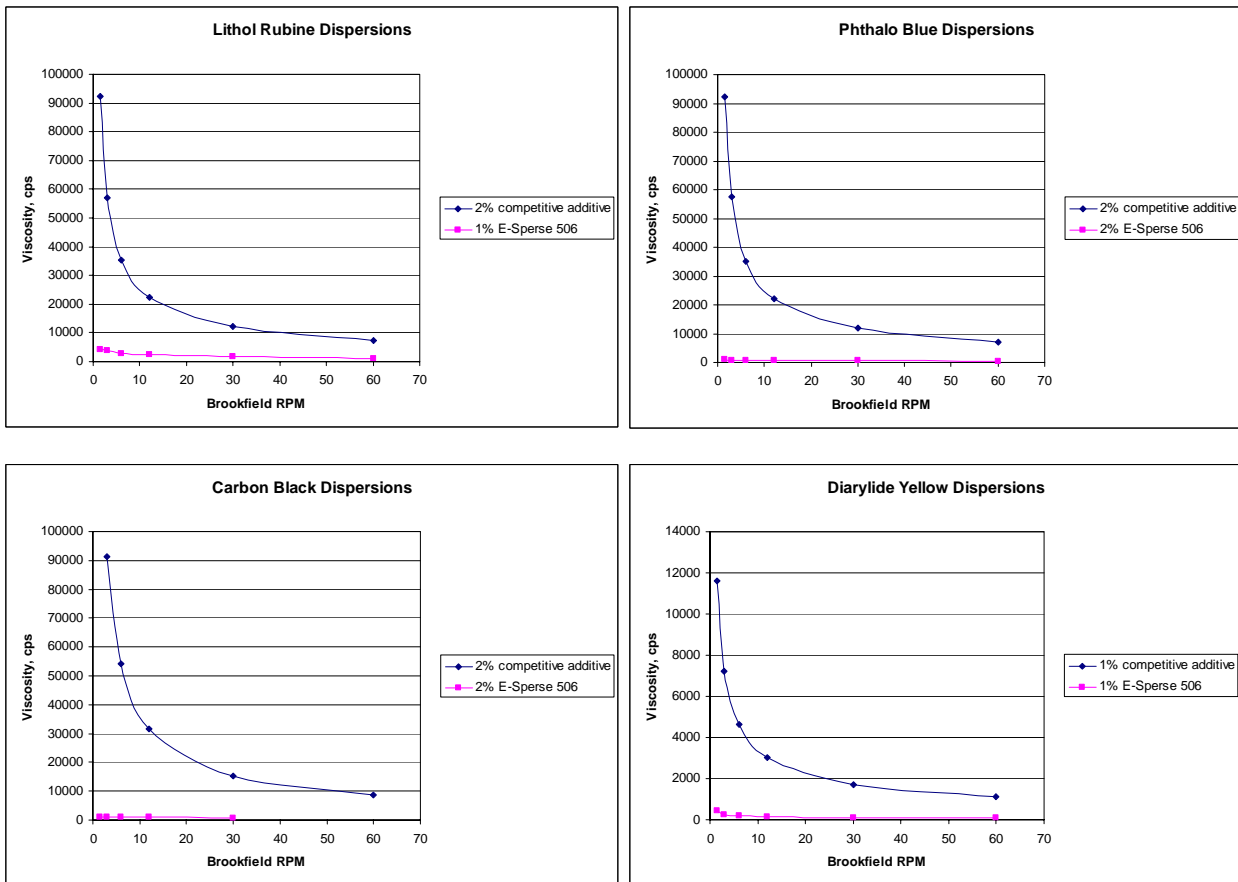
VISCOSITY DATA:

For the pigments evaluated above, substantial viscosity reductions vs. a control “competitive” additive were noted –

	<u>Viscosity, competitive additive</u>	<u>Viscosity, E-Sperse 506</u>
Phthalo blue	7040 cps	940 cps
Lithol rubine	7450 cps	1220 cps
Diarylide yellow	1130 cps	110 cps
Carbon black	15430 cps	852 cps

PSEUDOPLASTICITY REDUCTION:

E-Sperse 506 dramatically reduces pseudoplastic character in all pigment dispersions; the profile of viscosity with rotational shear is much shallower with E-Sperse –



STABILITY:



Phthalo Blue 15:3



Diarylide Yellow



Lithol Rubine 57:1

These six dispersions had aged for sixth months; the control dispersions shown on the left in each photo were pseudoplastic and viscous. The dispersions containing E-Sperse 506 on the right were very fluid at the same pigment loading as the control.

TYPICAL PROPERTIES:

Color	4 Max Gardner
Activity, %	60%
Solvent	Water
Acid Value	2 Max
pH	8.4
Appearance	Liquid at 25 ° C

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