

NUOSPERSE® FX 505

Pigment Dispersing Agent

GENERAL INFORMATION

NUOSPERSE FX 505 is a low-foaming, polymeric pigment dispersing agent that works effectively with many hydrophilic pigments and extenders used in aqueous coatings.

CHEMICAL & PHYSICAL PROPERTIES

Appearance 20°C	clear liquid
Active content	50 %
pH (ASTM D 1172)	7.0 - 8.5
Density, 20 °C (ISO 2811-2)	approx. 1220 kg / m ³
Viscosity, 25°C (ASTM D 2196)	max. 1000 mPa.s
Color (DIN-EN 1557)	max. 4 Gardner
Solubility	soluble in water
Composition	ammonium salt of a polymeric carboxylic acid

These are typical properties not to be used for specification purposes.

APPLICATIONS

- **NUOSPERSE FX 505** is suitable for practically all types of aqueous coatings based on polymeric binders, e.g. PVAC-, PAC-, PSB-, PSAC dispersions, terpolymers and latexes etc.
- **NUOSPERSE FX 505** shows excellent compatibility with those polymeric binders commonly used in diverse aqueous formulations, e.g. paper coatings, adhesives, carpet backings and plastics etc.
- **NUOSPERSE FX 505** is applied as dispersing agents for many hydrophilic pigments and extenders in aqueous media such as titanium dioxide, calcium carbonate, barium sulphate, iron oxides etc. The product is strongly adsorbed on to these surfaces and reduces the viscosity of the milling paste. If strongly hydrophobic pigments are used such as most organic types, it is recommended to use **NUOSPERSE FX 505** in combination with a wetting agent like NUOSPERSE FN 265 or NUOSPERSE FN 211.

- **NUOSPERSE FX 505** counteracts flocculation, floating, flooding and pigment settling. It does not cause foam formation and does not depolymerise on storage. As a result coatings with improved performance and excellent stability are obtained.
- **NUOSPERSE FX 505** also avoids the viscosity increase which usually occurs during storage in coatings formulated with less chemically stable dispersants such as most polyphosphates and the common copolymeric dispersing agents.

KEY PROPERTIES

FEATURE	CONSEQUENCE
• Narrow distribution	- optimal effectiveness of polymer molecular mass - enhanced pigment dispersion - reduced flocculation - best opacity
• No foaming	- reduced defoamer demand - no bubbles or craters
• Insensitive to hydrolysis	- provides long-term stability of the paint

INCORPORATION

NUOSPERSE FX 505 should be added prior to the dispersion stage. The quantity is very dependent on the composition of the paste and should be determined experimentally. It is recommended to determine the "viscosity response curve" by measuring the viscosity of pastes made with a ladder series of additions product. In the final paint formulation 1.3 to 1.5 times the amount of **NUOSPERSE FX 505** which gives the lowest viscosity in the viscosity curve determination is used.

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LEVELS OF USE

In general, a concentration of between 0.07 – 0.7 % of **NUOSPERSE FX 505** - calculated on the total quantity of pigment and extender will be sufficient.

HEALTH AND SAFETY

Before using this product please consult our Safety Data Sheet (SDS) for information on safe handling and storage. The SDS can be found on the company website.

SHELF LIFE

NUOSPERSE FX 505 has a shelf life of 2 (two) years from date of manufacture.

QUALITY ASSURANCE

Since 1992 the company is a holder of the ISO 9001 / ISO 9002 certificates, which guarantees that all operations are conducted according to the stipulated standards.

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