

Pigment Dispersing Agent

GENERAL INFORMATION

NUOSPERSE® FX 540 is a low foaming polymeric pigment dispersing agent that works effectively for many hydrophilic pigments and extenders, used in aqueous coatings.

PHYSICAL PROPERTIES

Appearance : clear liquid
 Active matter : 40%
 pH
 (ASTM D 1172): 7.0-8.5
 Viscosity, 25 °C
 (DIN 53015) : max. 200 mPa.s
 Color
 (DIN-EN 1557) : max. 4 Gardner
 Solubility : soluble in water
 Flash point : > 100 °C
 Composition : ammonium salt of a polymeric carboxylic acid

APPLICATION AND PROPERTIES

NUOSPERSE® FX 540 is applicable to practically all types of aqueous coatings based on polymeric binders, e.g. PVAC-, PAC-, PSB-, PSAC dispersions, terpolymers and latices etc.

The product shows excellent compatibility with those polymeric binders commonly used in aqueous formulations, e.g. paper coatings, adhesives, carpet backings and plastics etc.

NUOSPERSE® FX 540 is applied as dispersing agent in many hydrophilic pigments and extenders in aqueous mediums such as titanium dioxides, calcium carbonate, barium sulphate, iron oxides etc. The product is strongly adsorbed onto these pigments and extenders 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 540 in combination with a wetting agent, e.g. NUOSPERSE® FN 1566 or NUOSPERSE® FN 265. NUOSPERSE® FX 540 counteracts flocculation, floating, flooding and pigment settling. It does not cause foam formation, nor depolymerises upon storage. As a result coatings with improved performance and excellent stability are obtained.

NUOSPERSE® FX 540 also avoids the viscosity increase which usually occurs during storage with coatings formulated with less chemically stable dispersing agents such as most polyphosphates and various copolymeric dispersing agents.

Feature	Consequence
• Narrow distribution of molecular mass of the polymer	- optimal effectivity - enhanced pigment dispersion - less flocculation - best opacity
• No foaming	- reduces required amount of defoamer - no bubbles or craters
• Insensitive to hydrolysis	- provides longterm stability of the paint

DOSAGE

NUOSPERSE® FX 540 can be added prior the dispersion stage. The quantity is very dependent on the composition of the paste and should be determined experimentally. It is advised to determine the "viscosity curve" by measuring the viscosity of pastes with various amounts of the product: use in the paint formulation ± 1.5 times the amount of NUOSPERSE® FX 540, which gives the lowest viscosity at the viscosity curve determination.

In general, a concentration of between 0.1 – 0.8% of NUOSPERSE® FX 540 calculated on the total quantity of pigment and extender will be sufficient.

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The information in this publication is intended to serve as guide but is not necessarily complete and is given without warranty. We recommend all users to determine the suitability of our products for their intended uses and caution them to comply with statutory obligations and to avoid infringing rights of third parties. We encourage users to contact us to discuss problems involving our products in order to facilitate their use.

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HANDLING AND SAFETY

More detailed information on handling and safety for each product is included in the relevant material safety data sheet, available for each product.

QUALITY ASSURANCE

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

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