

## NUOSPERSE® 700

### Wetting and Dispersing Agent

#### GENERAL INFORMATION

**NUOSPERSE 700** is a low odor liquid, wetting and dispersing agent which has been especially formulated for use in organic solvent based paint systems. **NUOSPERSE 700** is effective for both organic and inorganic pigments. Properties such as opacity, gloss, color strength and brightness can be considerably improved at lower costs.

#### CHEMICAL & PHYSICAL PROPERTIES

Appearance	clear liquid
Active content	50 %
pH 1% in water (ASTM D 1172)	5.5 - 7.0
Density, 20°C (ISO 2811-2)	approx. 985 kg / m <sup>3</sup>
Viscosity, 25°C (ASTM D 2196)	A / B / C Gardner color, 10% in 50% IPA
Color, 10% in 50% IPA (DIN-EN 1557)	max. 12 Gardner
Solubility	miscible with water
Flash point (ASTM D 6450)	approx. 56°C
Composition	composition of surface active agents in solution
Ion character	anionic

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

#### APPLICATIONS

- **NUOSPERSE 700** improves and accelerates the preparation of stable dispersions by ensuring optimum and uniform pigment wetting. In the wetting process the solid/air interface is replaced by the solid/liquid interface. **NUOSPERSE 700** molecules are strongly adsorbed onto the pigment surface. By entropic repulsion, the dispersed pigment particles are stabilised thereby considerably reducing the risks of re- agglomeration and flocculation.
- **NUOSPERSE 700** typically optimizes the color strength of pigment-dispersions, enabling substantial raw material cost savings to be achieved. Also properties like gloss, opacity and the stability of paints are typically improved, particularly in systems based on poor wetting binders.

- **NUOSPERSE 700** counteracts pigment flocculation, -floating, -flooding as well as the formation of hard sediments.
- The addition of the product to pigment pastes generally reduces viscosity, which allows for a higher solids content.
- Using the product also improves the compatibility of colorants in white base paint.
- The application of **NUOSPERSE 700** reaches pigmented systems such as paint systems and inks up to pigment related systems, such as titanium dioxide, iron oxide or other pigment-like dispersions for various applications.
- A good example is the successful application of **NUOSPERSE 700** to disperse iron oxide and chrome dioxide in polymers used in the production of magnetic audio-visual tapes.

#### KEY PROPERTIES

FEATURE	CONSEQUENCE
<ul style="list-style-type: none"> <li>• Strong adsorption on pigment surface</li> </ul>	<ul style="list-style-type: none"> <li>- improved color development</li> <li>- better and faster dispersion</li> <li>- reduces rub-up and color float</li> <li>- improved compatibility with universal colorants</li> </ul>
<ul style="list-style-type: none"> <li>• Multi-functional</li> </ul>	<ul style="list-style-type: none"> <li>- adsorption onto a wide variety of pigments, surfaces</li> </ul>
<ul style="list-style-type: none"> <li>• Low molecular weight</li> </ul>	<ul style="list-style-type: none"> <li>- excellent wetting</li> <li>- fast adsorption</li> <li>- lower process viscosity of the milling paste</li> <li>- best cost/performance ratio</li> </ul>
<ul style="list-style-type: none"> <li>• low odor</li> </ul>	<ul style="list-style-type: none"> <li>- replaces NUOSPERSE FA 601 in case of low odor requirements</li> </ul>

*continued...*

## NUOSPERSE® 700

### INCORPORATION

**NUOSPERSE 700** interacts with the pigment surface; application tests are recommended in order to establish the acceptable optimum dosage.

**NUOSPERSE 700** should be added to the milling paste prior to dispersion and is suitable for all organic solvent based paint systems, especially air drying and physically drying paints.

### LEVELS OF USE

The product is generally added at a concentration of 1.0%, based on the weight of the milling paste. However, due to variations in pigments, extenders and binders, it is recommended to undertake laboratory trials in order to establish the exact quantity required for optimum results.

### 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 700** has a shelf life of 3 (three) 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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#### North America

Elementis  
469 Old Trenton Road  
East Windsor  
NJ 08512, USA  
Tel.: +1 609 443 2500  
Fax: +1 609 443 2422

#### Europe

Elementis UK Ltd.  
c/o Elementis GmbH  
Stolberger Strasse 370  
50933 Cologne, Germany  
Tel.: +49 221 2923 2066  
Fax: +49 221 2923 2011

#### Asia

Deuchem (Shanghai) Chemical Co., Ltd.  
99, Lianyang Road  
Songjiang Industrial Zone  
Shanghai, China 201613  
Tel.: +86 21 5774 0348  
Fax: +86 21 5774 3563