

## Pigment Dispersing Agent

### GENERAL INFORMATION

NUOSPERSE 657 RD is a wetting and dispersing agent for pigments which can be applied to practically all solvent based paint systems. The product can also be applied in the vinyl industry. NUOSPERSE 657 RD contains very low content of cyclic aromatic hydrocarbons.

### PHYSICAL PROPERTIES

Appearance	: slightly hazy liquid
Active content	: 70 – 75%
pH	: neutral
Density, 20°C (ISO 2811-2)	: approx. 950 kg/m <sup>3</sup>
Viscosity, 23°C (ASTM D 2196)	: 200 – 1000 mPa.s
Color (DIN-EN 1557)	: max. 12 Gardner
Solubility	: soluble in most organic solvents
Flash point (ASTM D 65)	: > 40°C

### APPLICATION AND PROPERTIES

NUOSPERSE 657 RD can be applied to practically all paint systems, e.g. to air-drying alkyd paints, alkyd-melamine baking enamels, acrylic enamels and industrial primers.

By adding NUOSPERSE 657 RD to the pigment paste before the grinding process, a quicker wetting of the pigments as well as a better degree of dispersion is obtained. This has the following advantages:

- shorter grinding time
- low viscosity of the grinding paste, resulting in a greater capacity
- improved stability of the paint
- better coloring power of the paint
- better covering power of the paint

If applied in the correct concentrations, NUOSPERSE 657 RD will not influence the gloss and adhesion of the paint unfavourably.

NUOSPERSE 657 RD can be used in pigment pastes which are to be added to vinyl film and sheeting, extrusions, plastisols, organosols and solution coatings. In some cases, a.o. for black pigments, it is advisable to combine NUOSPERSE 657 RD with NUOSPERSE FA 192.

The use of NUOSPERSE 657 RD in the preparation of pigment paste for vinyl use offers the following advantages:

- Higher pigment loading of the pigment paste without increased viscosity, or permits lower viscosity and greater fluidity at comparable pigment loading.
- The superior wetting and dispersing properties of NUOSPERSE 657 RD permits a finer pigment grind.
- The use of NUOSPERSE 657 RD produces an improved color strength of the pigment to the extent of about 5 – 10%. The greatest degree of improvement is obtained with organic pigments.
- NUOSPERSE 657 RD improves the dispersion of the titaniumdioxide pigments, providing greater opacity and whiteness which indicates that for equal hiding, the amount of white pigment could be reduced in the vinyl compound and be replaced by less expensive fillers.
- NUOSPERSE 657 RD does not alter the heat stability of average vinyl compound.

#### Feature

- Amphoteric character
- Film forming backbone
- Used for more than 40 years

#### Consequence

- effective for acidic, neutral and basic pigments
- provides film cohesion
- well established, reduces risk of failures

(continued)

*NOTE: The information herein is currently believed to be accurate. We do not guarantee its accuracy. Purchasers shall not rely on statements herein when purchasing any products. Purchasers should make their own investigations to determine if such products are suitable for a particular use. The products discussed are sold without warranty, express or implied, including a warranty of merchantability and fitness for use. Purchasers will be subject to a separate agreement which will not incorporate this document.*

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## INCORPORATION

As a dispersing agent for solvent based coatings, NUOSPERSE 657 RD should be applied at a concentration of 0.5 – 2.5% calculated on the pigment paste, and should be added before the grinding process. The best method is to mix NUOSPERSE 657 RD together with the quantity of binding agent required for the pigment paste.

For use in a vinyl application, NUOSPERSE 657 RD should be included in the pigment paste at 2.0 – 5.0%, based on the weight of the dry pigment. The exact dosage should be determined experimentally.

## HEALTH AND SAFETY DATA

Before using this product please consult our Material Safety Data Sheet (MSDS) for information on safe handling and storage. MSDS' can be found on the company website at [www.elementis-specialties.com](http://www.elementis-specialties.com).

## SHELF LIFE

NUOSPERSE 657 RD 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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