

Wetting and Dispersing Agent

GENERAL INFORMATION

NUOSPERSE® AP 657 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.

PHYSICAL PROPERTIES

Composition	high molecular weight polyester
Appearance	yellow to brown viscous liquid (25°C)
Colour value	max. 10 Gardner
Non-volatile content	70 - 75 %
Solvent	naphtha(petroleum), hydrotreated heavy
Specific gravity	ca. 0.95
Dynamic viscosity	1000 - 3000 (25°C)
Acid value	9 - 18 mg KOH / g

APPLICATIONS

NUOSPERSE® AP 657 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® AP 657 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 colouring power of the paint
- better covering power of the paint

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

NUOSPERSE® AP 657 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® AP 657 with NUOSPERSE® FA 192.

The use of NUOSPERSE® AP 657 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® AP 657 permits a finer pigment grind.
- The use of NUOSPERSE® AP 657 produces an improved colour strength of the pigment to the extent of about 5 - 10%. The greatest degree of improvement is obtained with organic pigments.
- NUOSPERSE® AP 657 improves the dispersion of the titanium dioxide 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® AP 657 does not alter the heat stability of average vinyl compound.

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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KEY PROPERTIES

FEATURE	CONSEQUENCE
• Amphoteric character	- effective for acidic, neutral and basic pigments
• Film forming backbone	- provides film cohesion
• Used for more than 40 years	- well established, reduces risk of failures
• PAHs-free	- Environmentally friendly
• Very low aromatic solvent content	- Environmentally friendly

INCORPORATION

The best method is to mix NUOSPERSE® AP 657 together with the quantity of binding agent required for the pigment paste. The exact dosage should be determined experimentally.

LEVELS OF USE

As a dispersing agent for solvent based coatings, NUOSPERSE® AP 657 should be applied at a concentration of 0.5 - 2.5 % calculated on the pigment paste, and should be added before the grinding process.

For use in a vinyl application, NUOSPERSE® AP 657 should be included in the pigment paste at 2.0 - 5.0 %, based on the weight of the dry pigment.

HANDLING AND SAFETY

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-asia.com.

SHELF LIFE

NUOSPERSE® AP 657 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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