FINNDISP™ A 2002 Acrylic Co Polymer Dispersion

Acrylic Co-polymer Dispersion

Regional Product Availability

EMEA

Product Description

FINNDISP™ A 2002 Acrylic Co Polymer Dispersion is an acrylic co-polymer dispersion stabilized with an anionic emulsifying system for high gloss applications.

The polymerization technology of FINNDISP™ A 2002 Acrylic Co Polymer Dispersion gives a polymer having high gloss values. The glass transition temperature, Tg, of FINNDISP™ A 2002 Acrylic Co Polymer Dispersion is relatively high, 55°C. If a lower Tg is needed FINNDISP™ A 2002 Acrylic co Polymer Dispersion can be blended with the corresponding low Tg product FINNDISP™ A 2001 Acrylic Co-Polymer Dispersion. FINNDISP™ A 2001 Acrylic Co-Polymer Dispersion has excellent water and blistering resistance and the adhesion to gloss aged alkyd is excellent already after 24 hour drying.

FINNDISP™ A 2002 Acrylic Co Polymer Dispersion is easily formulated, not sensible to manufacturing or application variables and is produced with low foaming tendency.

Key Features

- For DIY and industrial high gloss applications Good scrub resistance
- Excellent for both wood and metal applications
- Good for clear lacquers
- Remarkable adhesion to aged gloss alkyd
- By blending with FINNDISP™ A 2001 Acrylic Co-Polymer Dispersion enhanced hardness and flexibility can be achieved

Typical Properties

These are typical properties, not to be construed as specifications

Property	Typical Values
Appearance	White to bluish
Solids content %	47 – 49%
pH	8.5 – 9.2
Brookfield LV Viscosity (spindle 2,20 rpm)	300 - 1000 mPa.s
Minimum Film Formation Temperature	54 - 56°C
Specific Gravity (wet)	1.07 g/cm^3
Specific Gravity (dry)	1.10 g/cm^3

Formulation Guidelines

The technology used for producing FINNDISP™ A 2002 Acrylic Co Polymer Dispersion results in a polymer having high gloss values. By blending with the corresponding low Tg product FINNDISP™ A 2001 Acrylic Co-Polymer Dispersion optimum hardness and flexibility can be achieved.

Below are some guidelines to help formulators:

Dispersants

In order to achieve optimal gloss, different dispersants have been evaluated. In standard formulations with a high gloss titanium dioxide an optimal gloss is achieved using OROTAN™ 165 or OROTAN™ 731 A ER Dispersant.

Defoamers

A proper selection of defoamer is important as in all high gloss paints. In pigmented formulations excellent results have been seen with Byk-023, Byk-025, Foamaster ENA 415, Tego Foamex 825, Drewplus S-4386 etc. In high gloss VOC* free paints the defoamer selection is even more important. Byk-025, Byk-026 and Foamaster ENA 415 are not affecting the film formation and are therefore strongly suggested.

*VOC: Amount in g/L of organic compounds having an initial boiling point less than or equal to 250°C measured at a standard pressure of 101.3 kPa.

Rheology Modifiers & Thickeners

FINNDISP™ A 2002 Acrylic Co-Polymer Dispersion has excellent thickener efficiency with associative thickeners. The amount of needed thickener is therefore low while the paint still shows good levelling and flow. In high gloss paints the optimal thickener is ACRYSOL™ RM-2020E. Coalescents and co-solvents the selection of the co-solvent is critical to achieve the right balance between hardness and flexibility. But by blending FINNDISP™ A 2002 Acrylic Co-Polymer Dispersion FINNDISP™ A 2001 Acrylic Co-Polymer Dispersion the co-solvent demand is considerably reduced.

Adjustment of pH

The pH of the formulation can easily be adjusted by ammonia for example. The storage stability of the formulation should always be checked.

Extenders

The particle morphology and the small particle size of FINNDISP™ A 2002 Acrylic Co-Polymer Dispersion offer excellent pigment binding characteristics. It is even possible to formulate high PVC (80 %) paints with good scrub resistance.

Titanium Dioxide

For achieving optimal gloss it is important to choose a titanium dioxide grade for high gloss applications, for example Kemira RDI-S, Kronos 2190 or Tiona RCL 535.

Cross-linking

FINNDISP™ A 2002 Acrylic Co-Polymer Dispersion has carboxylic functionality, which is readily available for cross-linking with resins having affinity for carboxylic groups. This includes carbodi-imide (2-package) and aminoplast (1-package) type cross-linkers. Epoxy resin modification (2-package) is showing outstanding ambient and forced-drying cross-linked performance properties for both clear and pigmented coating systems. The epoxy resins can be added directly to the FINNDISP™ A 2002 Acrylic Co-Polymer Dispersion or to the paint with good mixing for 5 to 15 minutes.

Handling Precautions

Before using this product, consult the Material Safety Data Sheet (MSDS)/Safety Data Sheet (SDS) for details on product hazards, recommended handling precautions and product storage.

Storage

Store products in tightly closed original containers at temperatures recommended on the product label.

Disposal Considerations

Dispose in accordance with all, local or national regulations. Empty containers may contain hazardous residues. This material and its container must be disposed in a safe and legal manner.

It is the user's responsibility to verify that treatment and disposal procedures comply with local or national regulations. Contact your Dow Coating Materials Technical Representative for more information.

Chemical Registration

Many countries within EMEAI require the registration of chemicals, either imported or produced locally, prior to their commercial use. Violation of these regulations may lead to substantial penalties imposed upon the user, the importer or manufacturer, and/or cessation of supply. It is in your interests to ensure that all chemicals used by you are registered. Dow does not supply unregistered products unless permitted under limited sampling procedures as a precursor to registration.

Note on EMEAI Product Line

Product availability and grades vary throughout the countries in the Europe. Please contact your local Dow Coating Materials representative for further information and samples.

Product Stewardship

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Customer Notice

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