Basonol® AC 2120 W

Product description

Acrylic dispersion for two-component polyurethane coatings in high quality Automotive and Industrial coatings applications

Key benefits

- High gloss
- Excellent clarity
- Good hardness development and end hardness
- Easy polyisocyanate incorporation
- Excellent chemical resistance
- Excellent flexibility
- Excellent adhesion on plastics substrates

Chemical nature

Hydroxyl functional acrylic dispersion. Form of delivery is approx. 42% in water/3-butoxypropan-2-ol (51.4/6.6), neutralized with ammonia.

Properties

Physical form

White Emulsion

(not supply specification)

Solids by weight	ISO 3251	~ 42 %
Viscosity at 25 °C (Brookfield)	ASTM D-1824-72	~ 250 mPa.s
Density (as supplied) at 25 °C	DIN 53217	~ 1.06 kg/m³
pH value	DIN ISO 976	~ 7
Acid value (solids)	calculated	~ 15 mg KOH/g
Hydroxyl content (solids)	calculated	~ 120 mg KOH/g (3.6 %)
Minimum film forming temperature	DIN ISO 2115	< 5 °C
Freeze/thaw stable		no

Application

Basonol® AC 2120 W is hydroxyl functional dispersion based on a new technology for high quality 2K PU coatings used in Automotive and Industrial applications. Basonol® AC 2120 W is suitable for semi- or high gloss applications in both clear and pigmented systems. Basonol® AC 2120 W can also be used in combination with amino resins to produce one-component baking coatings.

Basonol® AC 2120 W has good film formation properties at low temperature, excellent chemical resistance, good flexibility and good scratch resistance. It has also been found to show excellent adhesion on plastics substrates (for use as primer or monocoat).

Formulation guideline

General / Coalescing solvents
Basonol® AC 2120 W can be preferably diluted with water to a solid content of around 39 %. It is also required to adjust pH to around 8 by addition of a 20% solution of dimethyl ethanol amine in water. In the polyol component no additional coalescing solvents are necessary (due to the content of 6.6 % 3-butoxypropan-2-ol).

Polyisocyanate component
Suitable crosslinkers are hydrophilically modified polisocyanates such as Basonat® HW 1000, 2100 and 3280 MBA, as well as conventional preferably low viscous polyisocyanates such as Basonat® HI 2000 NG, as well as blends of above mentioned polyisocyanates.
A solvent mixture of 20 % butyl glycol acetate and 5 % dibutyl glycol acetate or alternatively 25 % Rhodiasolv® RPDE is recommended to dilute low viscous hydrophobic polyisocyanates to obtain high gloss coatings. In addition it is recommended to use a high shear mixing system.
Coatings can be dried at room temperature or forced dried to produce durable coatings.

Compatibilization of polyisocyanate with the latex component
Hydropalat® WE 3650 is highly recommended to be used for all Basonol® AC 2120 W containing formulations, because it not only plays the role of a wetting agent but also acts as a compatibilizer which optimizes the distribution of the polyisocyanate hardener in this aqueous dispersion system, i.e. it significantly contributes to maximize gloss and to minimize haze of the coating! Recommended dosing is approximately 1.3 % in weight on total formulation.

Slip/levelling additive
In a clear coat formulation we recommend the use Efka® SL 3035 (approx. 0.3%) as a slip and levelling agent.

Foam Control
Recommended defoamers are Foamstar® ST 2438 or Foamstar® SI 2293.

Rheology
As rheology modifiers we recommend Borchi® Gel LW 44 (low shear) or Rheovis® PE 1330 (high shear).

Pigmented Coatings
In a pigmented system, we recommend to prepare the pigment paste separately and then add to the clear coat. As additives for the pigment dispersion, we recommend the following: Dispex® Ultra PX 4575, Efka® SL 3035 and FoamStar® SI 2210 as dispersing, slip and defoaming agents respectively.

Storage

This product shall be stored in tightly sealed original packaging at temperatures between 5 °C and 40 °C.

This product must be protected from frost.

Safety

When handling this product, please comply with the advice and information given in the safety data sheet and observe protective and workplace hygiene measures adequate for handling chemicals.

Note

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights, etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. The agreed contractual quality of the product results exclusively from the statements made in the product specification. It is the responsibility of the recipient of our product to ensure that any proprietary rights and existing laws and legislation are observed.

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