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Basonat® HB 100

Product Description **Basonat HB 100 is a solvent-free, aliphatic polyisocyanate for lightfast and weather-resistant two-pack polyurethane coatings.**

Key Features & Benefits
- Excellent weather and chemical resistance
- Excellent physical properties
- Non-yellowing

Chemical Composition **Polyisocyanate based on biuret-modified hexamethylene diisocyanate (HDI)**

Properties

Typical Characteristics

Appearance		liquid
Viscosity at 23°C	cps	2,500 – 4,500
Shear rate D	s^{-1}	1,000
Hazen color number		≤ 30
Density at 20°C	g/cm^3, lbs/gal	1.12, 9.35
NCO content	%	22 – 23
NCO equivalent weight (as supplied)		~ 187

Crosslinking Used to crosslink most hydroxy-containing resins such as Joncryl® acrylics and hydroxy functional polyesters.

Diluent tolerance Can be diluted with esters, ketones, glycolether acetates or with aromatic hydrocarbons. Only urethane-grade solvents should be used to lessen the possibility of reacting with water.

If diluted to a polyisocyanate fraction of less than 40%, turbidity, flocculation, and/or sedimentation may occur during storage. Storage trials should always be conducted.

The NCO equivalent weight indicates the amount of Basonat polyisocyanate as supplied containing 1 Mol of active NCO.

These values should not be interpreted as specifications.

Applications

Basonat HB 100 is used to formulate lightfast and weather-resistant coatings. It is solvent free and allows for a broad range of solvent choices. Aliphatic polyisocyanates are sometimes used in primers for difficult substrates such as aluminum or plastics.

Basonat HB 100 is recommended for applications such as:
- Interior/exterior general industrial metal coating applications
- Interior/exterior plastic component coating applications
- Interior/exterior wood coatings for floor, furniture, or millwork applications
- Interior/exterior Automotive OEM or refinish applications

Processing

The theoretical equivalent amount of polyisocyanate required for crosslinking is computed using the formula below:

$$\frac{0.075 \times [\text{OH number}] \times [\%\ \text{non-volatile fraction of OH component}]}{[\%\ \text{NCO}]}$$

Example

Basonat HB 100 and Joncryl 922

Joncryl 922

OH number	140 mg KOH/g polyol on solids
Non-volatile fraction, Nv	80%
NCO content (Basonat HB 100)	22.5%

$$\frac{0.075 \times 140 \times 80}{22.5} = 37.3$$

Basonat HB 100 dosage rate for 100g Joncryl 922 as supplied = 37.3g.

Solvents, pigments, or extenders, etc. used should be free from compounds containing active hydrogen groups such as water, alcohols, or amines.

A water content of less than 500 ppm in solvents and binders in two-component polyurethane coatings is acceptable.

Safety

General

The usual safety precautions when handling chemicals must be observed. These include the measures described in Federal, State, and Local health and safety regulations, thorough ventilation of the workplace, good skin care practices, and wearing of protective goggles.

Safety Data Sheet

All safety information is provided in the Safety Data Sheet for Basonat HB 100.

Storage

Please refer to the “Handling and Storage of Polymer Dispersion” brochure

Important

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