

# Industrial Coatings

## Technical Data Sheet

### Basonat<sup>®</sup> HA 3000 (old: Basonat<sup>®</sup> HA 300)



<b>Product Description</b>	Basonat <sup>®</sup> HA 3000 is a solvent-free, low viscous polyfunctional isocyanate for lightfast and weather-resistant, two-pack polyurethane coatings.
<b>Key Features &amp; Benefits</b>	- Lightfast, weather-resistant high solids coatings - Broad choice of solvents
<b>Chemical Composition</b>	Allophanate-modified polyisocyanate based on isocyanurated hexamethylene diisocyanate

### Properties

<b>Typical Characteristics</b>	Appearance	liquid
	Viscosity at 23°C (73°F)	200 – 400 cps
	Shear rate D	1,000 s <sup>-1</sup>
	Hazen color number	≤ 60
	NCO content	19 – 20%
	NCO equivalent weight	~ 215

These typical values should not be interpreted as specifications.

The NCO equivalent weight indicates the amount of Basonat<sup>®</sup> polyisocyanate as supplied containing 1 Mol of active NCO.

**Crosslinking** Used to crosslink most hydroxy acrylic resins such as Joncryl<sup>®</sup> or Luhydran<sup>®</sup> acrylics.

**Diluent tolerance** Can be diluted with esters (butyl acetate), ketones (methyl ethyl ketone), glycolether acetates (methoxypropyl acetate) or with aromatic hydrocarbons (Solvesso<sup>1</sup> 100, xylene).

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.

### Applications

Basonat<sup>®</sup> HA 3000 is used to formulate particularly lightfast and weather-resistant high solids coatings. It is solvent free and allows for a broad range of solvent choices. For example in furniture coatings, when less volatile solvents would retard drying excessively, highly volatile solvents can be chosen. Also, drying may be catalytically accelerated with, for example, dibutyl tin dilaurate.

Basonat<sup>®</sup> HA 3000 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

<sup>1</sup>Registered trademark of ExxonMobil Corporation.

**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<sup>®</sup> HA 3000 and Joncryl<sup>®</sup> 922

Joncryl<sup>®</sup> 922

OH number	140 mg KOH/g polyol on solids
Non-volatile fraction, Nv	80%
Basonat <sup>®</sup> HA 3000 NCO content	19.5%

$$\frac{0.075 \times 140 \times 80}{19.5} = 43.1$$

Basonat<sup>®</sup> HA 3000 dosage rate for 100g Joncryl<sup>®</sup> 922 as supplied = 43.1g.

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.

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**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, and wearing of protective goggles.

**Material Safety Data Sheet**

All safety information is provided in the Material Safety Data Sheet for Basonat<sup>®</sup> HA 3000.

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**Storage**

Properly stored and protected from humidity, the original unopened container of Basonat<sup>®</sup> HA 3000 should have a shelf life of at least 6 months. Store at temperatures between 10 – 30°C (50 – 86°F).

## Important

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