

# Industrial Coatings

## Technical Data Sheet

### Basonat<sup>®</sup> HA 1000 (old: Basonat<sup>®</sup> HA 100)



<b>Product Description</b>	Basonat <sup>®</sup> HA 1000 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

#### Typical Characteristics

Appearance	liquid
Viscosity at 23°C (73°F)	900 – 1,500 cps
Shear rate D	1,000 s <sup>-1</sup>
Hazen color number	≤ 60
NCO content	21 – 23%
NCO equivalent weight	~ 191

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> and Luhydran<sup>®</sup> acrylics.

#### Diluent tolerance

Can be diluted with esters (butyl acetate), ketones (methyl ethyl ketone), glycoether 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 1000 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 1000 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 1000 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 1000 NCO content	22%

$$\frac{0.075 \times 140 \times 80}{22} = 38.2$$

Basonat<sup>®</sup> HA 1000 dosage rate for 100g Joncryl<sup>®</sup> 922 as supplied = 38.2g.

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 1000.

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## Storage

Properly stored and protected from humidity, the original unopened container of Basonat<sup>®</sup> HA 1000 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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### **U.S. & Canada**

BASF Corporation  
1609 Biddle Avenue  
Wyandotte, Michigan 48192  
Phone: (800) 231-7868  
Fax: (800) 392-7429  
Email: [polyorders@basf.com](mailto:polyorders@basf.com)  
Email: [edtech\\_info@basf.com](mailto:edtech_info@basf.com)  
[www.basf.us/industrialcoatings](http://www.basf.us/industrialcoatings)

### **Mexico**

BASF Mexicana, S.A. de C.V.  
Av. Insurgentes Sur # 975  
Col. Ciudad de los Deportes  
C.P. 03710  
Mexico, D.F.  
Phone: (52-55) 5325-2756  
Fax : (52-55) 5723-3011