Industrial Coatings

Technical Data Sheet

Basonat® HW 2000

(old: Basonat® LR 9056)

BASF
We create chemistry

Product Description

Basonat® HW 2000 is a water-emulsifiable, solvent-free, aliphatic polyisocyanate for crosslinking hydroxyl functional emulsions.

Key Features & Benefits

- Excellent weather and chemical resistance
- Non-yellowing
- Excellent hardness/flexibility for demanding applications

Chemical Composition

Emulsifier-modified polyisocyanate based on isocyanurated hexamethylene diisocyanate (HDI)

Properties

Typical Properties

Appearance	liquid
Viscosity at 23°C (73°F)	1,500 – 3,000 cps
Shear rate D	1,000 s^{-1}
Hazen color number	≤ 40
NCO content	17.5 – 18.5%
NCO equivalent weight	~233

These typical values should not be interpreted as specifications.

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

Applications

Basonat® HW 2000 is used as a crosslinker for polymeric dispersions containing reactive OH groups.

Basonat® HW 2000 is recommended for applications such as:

- Interior/exterior general industrial metal coating applications
- Interior/exterior plastic components coating applications
- Interior/exterior wood coatings for floor, furniture, or millwork applications
- Interior/exterior automotive OEM and refinish applications

Processing

Basonat® HW 2000 can be directly incorporated into the formulated dispersion. Due to the reaction of a polyisocyanate with water, the OH and NCO groups cannot be expected to react stoichiometrically.

Generally, addition 10 – 20 parts of Basonat® HW 2000 to 100 parts of primary acrylic emulsion (solids on solids) will be sufficient. The optimum dosage rate for the application is usually determined empirically.

For secondary emulsions, a stoichiometric relation of 150 parts of Basonat® HW 2000 on 100 parts of polyol (index 150) is used. It can be mixed with low viscosity polyisocyanates such as Basonat® HA 1000.

For easier incorporation, Basonat® HW 2000 can be dissolved first in 10 – 30% of the solvent which is used as the film forming agent for the dispersion, such as butyl glycol acetate, butyl diglycol acetate, or methoxypropyl acetate.

When forming coatings, care should be taken that solvents, additives, and gelling agents do not react with isocyanate groups, as any substances containing active hydrogen groups should be avoided.

Tertiary amines such as dimethylethanolamine, triethylamine, and triethanolamine can be used to adjust pH. The pH value of the formulation decisively influences the pot life – the higher the pH, the shorter the pot life. A pH > 7 promotes the reaction of polyisocyanate with water and the amine.

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.

Safety Data Sheet

All safety information is provided in the Safety Data Sheet for Basonat® HW 2000.

Storage

Properly stored and protected from humidity at temperatures below 25°C (77°F), the original unopened container of Basonat® HW 2000 should have a shelf life of at least 6 months.

Important

While the descriptions, designs, data and information contained herein are presented in good faith and believed to be accurate, they are provided for guidance only. Because many factors may affect processing or application/use, BASF recommends that the reader make tests to determine the suitability of a product for a particular purpose prior to use. **NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESCRIPTIONS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS.** In no case shall the descriptions, information, data or designs provided be considered a part of BASF's terms and conditions of sale. Further, the descriptions, designs, data, and information furnished by BASF hereunder are given gratis and BASF assumes no obligation or liability for the descriptions, designs, data or information given or results obtained all such being given and accepted at the reader's risk.

Responsible Care®
Good Chemistry at Work

BASF Corporation is fully committed to the Responsible Care® initiative in the USA, Canada, and Mexico.
For more information on Responsible Care® goto:
U.S.: www.basf.us/responsiblecare_usa
Canada: www.basf.us/responsiblecare_canada
México: www.basf.us/responsiblecare_mexico

U.S & Canada
BASF Corporation
24710 W Eleven Mile Road
Southfield, MI 48033
ph: (800) 231-7868
fax:(800) 392-7429
Email: Custserv_charlotte@basf.com
Email: edtech_info@basf.com
www.basf.us/dpsolutions

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