

Basonat[®] HW 1180 PC

Product Description	Basonat HW 1180 PC is a water-emulsifiable, aliphatic polyisocyanate for crosslinking hydroxyl functional emulsions, and is supplied at 80% solids in propylene carbonate.
Key Features & Benefits	<ul style="list-style-type: none">- Excellent weather and chemical resistance- Excellent adhesion to various substrates- Easily emulsifiable in water- Low VOC
Chemical Composition	Emulsifier-modified polyisocyanate based on isocyanurated hexamethylene diisocyanate (HDI)

Properties

Typical Characteristics

Appearance		liquid
Non-volatile content	%	79 – 81
Viscosity at 23°C (73°F)	cps	450 – 850
Shear rate D	s ⁻¹	100
Hazen color number		≤ 100
Density at 20°C	g/cm ³ , lbs/gal	1.18, 9.85
NCO content	%	13 – 14
NCO equivalent weight		~312

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 HW 1180 PC is used as a crosslinker for polymeric dispersions containing reactive OH groups.

Basonat HW 1180 PC 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

Basonat HW 1180 PC 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, adding 10 – 20 parts of Basonat HW 1180 PC to 100 parts of primary acrylic emulsion (solids on solids) is sufficient. The optimum dosage rate for the application is usually determined empirically.

For secondary emulsions, a stoichiometric ratio of 150 parts of polyisocyanate to 100 parts of polyol (index 150) is used. Basonat HW 1180 PC can be mixed with low viscosity polyisocyanates such as Basonat HA 1000.

For easier incorporation, Basonat HW 1180 PC can be dissolved first in 10 – 30% of the solvent that is used as the film forming agent for the dispersion such as butyl glycol acetate, butyl diglycol acetate, or methoxypropyl acetate.

When formulating 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 the pH values. 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 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 practices, and wearing of protective goggles.

Safety Data Sheet

All safety information is provided in the Safety Data Sheet for Basonat HW 1180 PC.

Storage

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

Important

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