

Basonat® HW 1000

Product description Basonat® HW 1000 is an aliphatic emulsifier-modified isocyanurate for lightfast and weather-resistant water-based 2K polyurethane coatings.

- Key benefits**
- Solvent free
 - Based on isocyanurate oligomer
 - High weather resistance
 - Good light fastness
 - Easy dispersable
 - Good potlife and reactivity behavior

Chemical nature Emulsifier-modified isocyanurate based on Hexamethylenediisocyanate (HDI)

Properties

Physical form Transparent, viscous liquid

| Technical data (no supply specification) | | | |
|---|------------------|--|-------------------|
| NCO content | DIN EN ISO 11909 | | 16.5 – 17.5% |
| Viscosity at 23 °C (73 °F) D = 100 s ⁻¹ | DIN EN ISO 3219 | | 2,000-6,000 mPa*s |
| Platin cobalt color number (Hazen) | DIN EN ISO 6271 | | ≤ 100 |

Application

Basonat® HW 1000 is a solvent free emulsifier-modified polyfunctional isocyanurate oligomer.

Basonat® HW 1000 is used as hardener for polymerdispersions, alone and in combination with hydrophobic polyisocyanates. It can be directly incorporated into the formulated dispersion. However an ideal stoichiometric reaction of OH and NCO groups cannot be expected.

Basonat® HW 1000 can be directly used as hardener for water-based 2K PU top coats for interior and exterior application. Add of 5% Basonat HW® on non OH-functional polymerdispersions could improve chemical resistances and adhesion on difficult substrates.

Formulation guidelines

In primary dispersions, Basonat® HW 1000 ideally crosslinks at a stoichiometric proportion of 100% NCO on OH groups of the dispersion without any drawback on potlife or reactivity. It is also possible to use lower stoichiometric levels for sufficient coatings properties from 40 to 70%.

For the use in secondary dispersions mostly the Index of NCO to OH of 150 is used for sufficient drying at an acceptable potlife. Basonat® HW could be combined with low viscous polyisocyanates like Basonat® HI 2000 or Basonat® HA to improve specific properties.

To ease the incorporation of Basonat® HW 1000 it is possible to solve the polyisocyanate around 10 - 30% in the coalescent solvent used in the formulation (e.g. butyl glycol acetate, butyl diglycol acetate, methoxypropyl acetate, dipropylene glycol dimethyl ether).

When formulating coatings, care must be taken that film-forming agents (e.g. solvents), additives and gelling agents do not react with isocyanate groups, i.e. any substances containing active hydrogen groups should be avoided.

The pH value can be adjusted with tertiary amines such as dimethylethanolamine, triethylamine and triethanolamine.

The pH value of the formulation decisively influences the potlife.

Storage

Basonat® HW 1000 is sensitive to moisture. The ideal temperature range for storage is 0 - 30 °C (32 - 86 °F) and under airtight conditions (exclusion of humidity and atmospheric oxygen). Reaction with moisture will generate carbon dioxide which can lead to dangerous increase in pressure, while storage at high temperature will increase color and viscosity. After re-filling from original containers, a shorter shelf life should be expected. Containers should be flushed with nitrogen before resealing.

Safety

When handling this product, please comply with the advice and information given in the safety data sheet and observe protective and workplace hygiene measures adequate for handling chemicals.

Note

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