

cross-linker HI100a is a polyfunctional, water dispersible, solvent-free HDI based isocyanate used as crosslinker (curing agent) to improve overall resistances, chemical and physical, of waterborne hydroxyl-resins based formulations.

- ✓ anionic.
- ✓ high NCO content for hard and chemical resistant films.
- ✓ dispersible in water: 3.500 mPa·s (25°C).
- ✓ curing conditions: room temperature.
- ✓ NCO monomer content: < 0,25%.
- ✓ non dangerous for transport.

Recommended uses (2)

cross-linker HI100a is used in room temperature or heat curing processes as a crosslinker, in conjunction with waterborne formulations based on acrylic resins, polyurethane dispersions and synthetic rubber dispersions.

Improvement in cohesive strength contributes to the increased abrasion, scuff, chemical and water resistances of the cured film.

Designed for use in 2K formulations, this crosslinker is added to the formulated system just prior to use. Addition should be done slowly and with good agitation with a low-speed mixer to ensure even distribution.

Pot life depends very much on pH and composition of the formulated system and must therefore be determined in a case-by-case basis. In some cases, the end of pot life is not marked by gelling.

Specifically, it is used in processes of

- ✓ pigment printing and finishing (textile and leather)
- ✓ coatings and inks
- ✓ adhesives, PSA

This is a low temperature curing product. Care must be paid to the warehousing and transport conditions. Please refer to the shelf-life notes.

Description and Application (3)

1. **Presentation** 60 kg drums, one component.
2. **Dilution** ready to use material.
Can be stirred directly into the dispersion or prediluted in aprotic solvents (PU grade required, <0,05% water).
3. **Preparation** Additions vary depending on application conditions. Among others, they depend on the polymer to be crosslinked and the substrate to be treated. Therefore, compatibility and optimum quantity must be determined experimentally in a case-by-case basis.
NCO content: 20,5%
Homogenize all the material with a low-speed mixer.
4. **Application (5)** minimum starting crosslinking temperature depends on the substrate and treatment time.
This product is designed for room temperature crosslinking.

Product characteristics

appearance	clear liquid	
active matter	100%	w/w
NCO content	20,5 ± 0,5%	ISO 11909
free NCO content	< 0,25%	ISO 10283. Professional use only.
ionicity	anionic	
specific weight	1,15 ± 0,05 kg / litre	EN 2811
pH (20°C)	not applicable	
Viscosity (25°C)	3.500 ± 1000 mPa·s	ISO 3219
VOC	VOC & solvent free	Decopaint Directive (2004/42/EC)
thinner / cleaner	non-protic solvents	PU grade required for dilution (< 0,05% water content)
flash point	> 190 °C	ISO 2719
shelf life	9 months	

Store indoors, in original unopened packaging, protected from moisture, light and extreme temperatures (5°C < T < 30°C)

Direct contact with water, alcohol derivatives, strong oxidizers, metals (like Mg and Al), basic materials and carboxylic acid should also be avoided. Reactions generate heat and may buildup pressure due to CO₂ evolution in closed containers.

The values displayed are mean values that may vary between batches. Please refer to the Certificate of Analysis (CoA).

Notes

- (1) Please refer to the safety data sheets (sds) to minimize risks during storage, handling and application of this product.
- (2) This is a product for **PROFESSIONAL USE**. In addition to the properties and specifications of a given material, there are other key decisions and factors that determine the performance of an applied system, such as the method of application and circumstances, available equipment and its settings, size and nature of the job, conditions of service etc. Control of the applied system variables is the sole responsibility of the user.
- (3) All information is offered in good faith and without any liability regarding the suitability for any purpose, the performance of the product or any damage or loss that may result from its use.
This product information is subject to the Disclaimer (see footnote). Furthermore, it may be changed from time to time without prior notice in the light of experience and normal product development. Please check the reference number of this product information with our Technical Dept to ensure you are using the latest version. Numerical values may change from batch to batch.
Warranty: Our Company warrants its products to be free from manufacturing defects in accordance with our quality control procedures. The responsibility of the products that could be defective, if any, is limited to the replacement of the product or the payment of its purchase price as determined by our Technical Department. No other warranty of any kind, expressed or implied, is given. Please consult our Sale Conditions.
- (4) Dilution can affect performance and tolerances. The use of thinners other than those recommended is at the user's own risk and expense.
- (5) The information on the application is offered as a guide. Conditions vary for each project. Therefore, the user is responsible for the settings. This is also true for other data such as pot life or drying and curing times. Multiple factors can modify the behaviour of the product, among others:
 - a. high humidity and/or lack of movement in the air, application equipment.
 - b. differences in storage, application and curing temperatures. It is advisable to temper the products prior to mixing and application.
 - c. protect the product from condensation and moisture during and after application, until fully cured.