

cross-linker BI110 is a waterborne blocked isocyanate used as crosslinker (curing agent) to improve the overall resistances, chemical and physical, of waterborne hydroxyl resins-based formulations.

- ✓ non-ionic: wide compatibility.
- ✓ "one-pot" formulations (single component systems).
- ✓ unblocking temperature: $\geq 110^{\circ}\text{C}$,
- ✓ curing conditions (minimum): 2 min, 130°C .
- ✓ free from formaldehyde, melamine and CMR products. No restrictions ZDHC level 1 (in process)
- ✓ non dangerous for transport.

Recommended uses (2)

cross-linker BI110 is used in heat-curing processes as a crosslinker, in conjunction with waterborne formulations based on acrylic and vinyl resins and polyurethane dispersions.

It contributes to the improvement of the chemical and water resistance of the cured film.

Designed for use in "one pot" formulations (single component systems) without altering the shelf life of the paste.

Specifically, it is used in processes of

- ✓ heat curing coatings.
- ✓ textile printing and finishing.
- ✓ glass fibre sizing.

It improves and accelerates the curing process of self-crosslinking resins, avoiding the use of products such as melamine or acids.

Description and Application (3)

1. **Presentation** 120 kg and 1.000 kg units, one component.
2. **Dilution** ready to use material. Dilutable in water at any proportion.
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, the optimum quantity must be determined experimentally in case-by-case basis.
As a starting point, an addition of 5% by weight of paste is recommended.
Homogenize all the material with a low-speed mixer.
4. **Application (5)** minimum starting crosslinking temperature depends on the substrate and treatment time. Although it can be detected from 110°C on, temperatures of at least $120\text{-}130^{\circ}\text{C}$ are recommended for two minutes or more.

Product characteristics

appearance	whitish aqueous dispersion with a very mild odour	
active matter	39 % ± 2%	w/w, loss on drying
NCO content	4,4%	calculation method
ionicity	non-ionic	
specific weight	1,05 ± 0,05 kg / litre	EN 2811
pH (20°C)	6,0 – 8,5	
VOC	75 gr/litre	Decopaint Directive (2004/42/EC)
thinner / cleaner	deionized water	
flash point	> 100°C	ISO 2719
shelf life	12 months	

Store indoors, in original unopened packaging, protected from moisture, light and extreme temperatures (10°C < T < 30°C)

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.
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.