

**cross-linker GL140** is a water dispersible modified dihydroxy ethylene urea used as crosslinker (curing agent) to improve overall resistances, chemical and physical, of cured waterborne cellulose, starch or polyvinyl alcohol based formulations.

- ✓ non-ionic: wide compatibility.
- ✓ easily dispersible in water.
- ✓ can be stirred directly into the dispersion, without the need for a catalyst.
- ✓ curing conditions: dry at 100-110°C and cure at 3 min 140°C (130°C to 160°C)
- ✓ non dangerous for transport, formaldehyde free

### ***Recommended uses (2)***

**cross-linker GL140** is used in heat curing processes as a crosslinker, in conjunction with waterborne formulations based on cellulose, starch or polyvinyl alcohol fibers or dispersions.

Improvement in cohesive strength contributes to the increased abrasion, scuff, chemical and water resistances of the cured material. 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 on the specific composition of the formulated system and must therefore be determined in a case-by-case basis.

Specifically, it is used in processes of

- ✓ textile and paper finishing
- ✓ adhesives

### ***Description and Application (3)***

1. **Presentation** 120 drums and 1000 kg IBC, one component.
2. **Dilution** ready to use material. Can be stirred directly into the dispersion.
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.  
As a starting point, an addition of 5% by weight (total base) is recommended. Up to 25% additions maybe necessary depending on the expected results and process conditions.  
Homogenize all the material with a low-speed mixer.
4. **Application (5)** minimum starting crosslinking temperature depends on the substrate and treatment time. Temperatures of 130°C to 160°C are recommended for optimum results.  
Curing time depends heavily on % moisture left in the substrate, and also on the ambient humidity (RH) during the curing process.  
Careful neutralization of the substrate is also necessary. Alkali residues may interfere with crosslinking process.

### Product characteristics

|                   |                        |                                  |
|-------------------|------------------------|----------------------------------|
| appearance        | clear yellowish liquid |                                  |
| ionicity          | non-ionic              |                                  |
| specific weight   | 1,15 ± 0,05 kg / litre | EN 2811                          |
| pH (20°C)         | 2 - 4                  |                                  |
| VOC               | 35 gr/litre            | Decopaint Directive (2004/42/EC) |
| thinner / cleaner | deionized water        |                                  |
| flash point       | > 100 °C               | ISO 2719                         |
| shelf life        | 6 months               |                                  |

Store indoors, in original unopened packaging, protected from moisture, light and extreme temperatures (5°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. 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.