
CROSS linkers
NOVOTEX
INNOVATIVE COATING TECHNOLOGY

CROSSLINKERS FOR WATER-BASED SYSTEMS

Crosslinkers are the chemicals used **to bond together** polymer chains. The direct effect of the crosslinking process is the **formation of a strong network** which improves several properties that polymer itself cannot reach, such as:

- **increased** chemical and mechanical resistance;
- **excellent** physical properties;
- **improved** abrasion resistance;
- **improved** hydrolisis resistance.

Customers have quite a few options available for **improving the performance** of **waterborne** systems by crosslinking of the polymer. Depending on the **chemical nature** of the crosslinker it is possible to provide the needed performance for certain applications, although issues such as handling and pot life of the mixture have to be considered as well. **Types of crosslinkers for waterborne dispersions** can be:

POLYISOCYANATES | POLYAZIRIDINES | POLYCARBODIIMIDES

To **respond to the demanding requirements of various industries** such as automotive, upholstery, fashion and graphics, among others, Novotex is **constantly developing** ready-to-coat systems based on resins and crosslinkers capable to provide enhanced performances to the coating.

Based on our customers' specific needs, we offer tailor-made **water-based systems** by choosing the best crosslinking option which effectively enables the requested performance to be reached.
Novotex's philosophy is based on providing **customized solutions** by selecting raw materials and **developing water-based systems** with the **lowest** possible **impact on VOCs** and low co-solvents content.
Since labelling is also an issue, we have developed a **crosslinkers portfolio** of poly-isocyanates, polyaziridines and polycarbodiimides **with the lowest hazardousness possible**.

MAIN CROSSLINKERS COMPARISON

	CARBODIIMIDE	ISOCYANATE	NEW GENERATION OF AZIRIDINE
REACTIVE GROUPS	Carboxylic-acid(-COOH)	Hydroxyl groups (-OH) Amines (-NH_2) Water (H_2O)	Carboxylic-acid(-COOH)
MOISTURE SENSITIVITY	Low	Very high	High
POT LIFE	Long	Short	Medium
GHS SYMBOLS	None		
TOXICITY	Not labelled	Harmful chemicals: skin sensitive and irritant	Harmful chemicals: flammable and irritant
TYPICAL DOSAGE	5-10%	4-6%	3%
CURING TIME	5-7 days	3-5 days	48 hours
PERFORMANCE	Good reactivity that improves physical and chemical properties	High reactivity that gives good chemical and physical properties	Very high reactivity that gives excellent chemical properties

"This is **the Novotex Way**
Exclusivity, Customization, Environmental Sustainability"

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For the updated Novotex waterborne systems portfolio, do not hesitate to contact our Sales Department.