Curing Agent X7

Description

CURING AGENT X7 is polyfunctional aziridine, employed as crosslinking agent and adhesion promoter. It is a clear, amber liquid, miscible in water and many common organic solvents.

Aziridine content is 6,35-7 meq/g

Application

CURING AGENT X7 can be used in both aqueous and solvent systems as crosslinker. It contains three aziridine groups, which can react with active H+, as found in the carboxyl groups of acrylic emulsions and polyurethane dispersions. This reaction protonates and opens the aziridine ring, which then reacts with oxygen of the carboxyl groups forming a cross-link network.
It imparts strength and flexibility, improves solvent resistance, alcohol and water resistance, increases hardness, upgrades adhesion to difficult substrates and decreases "blocking" effect.

Technical Specifications

Method of analysis	MU	Standard
3. Brookfield Viscosity 25°C	mPa.s	< 4,000 (1)
8. pH	pH	9 - 11 (2)
112. Ethyleneimine Content	ppm	< 10

(1) No 3 RV; 20 RPM
(2) 10% in water

Handling

CURING AGENT X7 must be added to the finished formulated PSA just prior to its use. The aziridine is added slowly and with a good agitation until complete homogeneity. We suggest to predilute in alkaline water to help the dispersion. It is really important to check the pH of the aqueous system before the addition, because the best results are obtained at **pH>9**. A lower pH may cause the aziridine to react prematurely in the pot.
The amount of aziridine to add to the formulated system will depend on the coated system and the desired properties of the coating film. Most applications use levels between 0.2% and 1.5% on wet weight. Tests on the cross-linking effect must be run after 24 hours from the coating. Pot-life after addition is about 18-36 hours if the pH is above 9.

Packaging

The product is supplied in plastic tanks (10 kg); Iron drums (25 kg); iron drums (200 kg).

Storing

CURING AGENT X7 must be stored at temperatures between +5° and +30°C, away from acids and oxidizers. Store in a cool, dry, well ventilated storage area and in closed containers. Protect material from freezing.

Use within 24 months from production date (unopened and in the original packaging).

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