Safe high-speed crosslinker for 1K waterborne lamination adhesives.
Desmodur® 2802 is a waterborne dispersion of a hydrophilically modified, polyfunctional carbodiimide based on aliphatic raw materials. It can be used as a crosslinker for waterborne adhesive formulations for roll-to-roll applications, such as flexible packaging lamination, with following advantages:

- Instant bonding at room temperature for very fast further processing (no hot room storage needed)
- One component processing prevents mixing failures and adhesive waste
- Improved food safety due to aliphatic nature when used in combination with aliphatic reaction partner
- Improves chemical & thermal resistance of adhesive layer
- Maintains brilliant finishes of adhesives that are applied on top of a print
- Pot life up to 6 months (pH 7–9)

The reactive dispersion of carboxyl group-containing polymer (e.g. Dispercoll® U XP 2643 or Dispercoll® U 2824 XP) and Desmodur® 2802 has a pot life of up to six months, provided the pH of the reactive dispersion is in the 7–9 range. This long pot life is achieved by the phase separation of the polycarbodiimide and the polymer droplets in the reactive dispersion. After evaporating the water of the reactive adhesive dispersion, the polycarbodiimide and the polymer droplets form a homogeneous film. Simultaneously, the reactive groups come into contact with each other, and the crosslinking reaction runs with high velocity.

To get the maximum performance out of this technology, it is highly recommended to use approx. 2 mol carbodiimide segments (-N=C=N-) per mol carboxyl groups (-COOH) in the polymer. Desmodur® 2802 meets the safety requirements of key regulations:

- FDA Regulations in 21 CFR 175.105 (adhesives)
- Pot life up to 6 months (pH 7–9)
- Maintains brilliant finishes of adhesives that are applied on top of a print
- Improves chemical & thermal resistance of adhesive layer
- Improved food safety due to aliphatic nature when used
- One component processing prevents mixing failures and adhesive waste
- Instant bonding at room temperature for very fast further processing (no hot room storage needed)
- No delay in downstream processing (e.g. slitting) due to sufficient instant curing

On request, we can provide a corresponding statement on food-contact use.

Desmodur® 2802

The manner in which you use our products, technical assistance and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations, is beyond our control. Therefore, it is imperative that you test our products to determine suitability for your processing and intended uses. Your analysis must at least include testing to determine suitability from a technical, health, safety, and environmental and regulatory standpoint. Such testing has not necessarily been done by Covestro, and Covestro has not obtained any approvals or licenses for a particular use or application of the product, unless explicitly stated otherwise. [EMA only: If the intended use of the product is for the manufacture of a pharmaceutical/medicinal product, medical device or of pre-cursor products for medical devices or for other specifically regulated applications which lead or may lead to a regulatory obligation of Covestro, Covestro must explicitly agree to such application before the sale.] Any samples provided by Covestro are for testing purposes only and not for commercial use.

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