



Desmodur® eco BL 7175

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High performance enabled by nature:
partly bio-based thermally activated polyurethane.



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The challenge – High performing 1K stoving system with a positive impact on the environment.

Companies across different industries are increasingly embedding sustainability as a pillar in their strategies. The purchase of raw materials is an area already having a positive impact, switching from petro-based to alternative building blocks, which contribute to a more circular approach.

Although bio-based polyesters for 1K stoving systems are available in the market, the limiting factor to maximize the bio-content of the system, while delivering high performance has been the thermally activated polyurethane hardener.

The solution - Desmodur® eco BL 7175.

Covestro has released **Desmodur® eco BL 7175**, a thermally activated polyurethane hardener based on pentamethylene diisocyanate (PDI). This product can contribute to the renewable content of the stoving systems, with an increased performance in comparison to standard hexamethylene diisocyanate (HDI) based grades.

Key benefits.

- Partly bio-based thermally activated polyurethane hardener in the market
- Approx. 32% renewable carbon content* derived from non-fossil-based inputs, the biomass source is mainly starch from non-edible plants (field corn)
- Significantly reduced carbon footprint compared to HDI derivatives
- Near drop-in for HDI-based trimers i.e. low reformulation requirement
- Slightly higher performance than standards as HDI derivatives (see comparison table)

Applications.

Coatings (e.g. coil, can, general industrial) – can be potentially used wherever blocked HDI trimers are used.

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Product Data Desmodur® eco BL 7175

Supply form (%)	Viscosity (mPas)	NCO-content (%)	Renewable content (%)
approx. 75	approx. 8.500	approx. 10.9	approx. 32

	Desmodur® eco BL 7175**	Desmodur® PL 350**
T-bend cracks/ adhesion aluminium	0,5 T / 0 T	0,5 T / 0 T
König hardness	188	176
Pencil hardness	2H	H
Thermal yellowing	Good thermal yellowing resistance (approx. b*value: -0.2)	

* 14C measurement according to ASTM-D6866 standard

** Since April 1, the DSM Resin Business Unit is part of Covestro: this series uses the optimal coil polyester Uralac SN844 S2G3-60 ND in a standard white formulation



Covestro Deutschland AG
Kaiser-Wilhelm-Allee 60
51373 Leverkusen
Germany

solutions.covestro.com
info@covestro.com