

# Desmodur<sup>®</sup> N 3300

**Characterization** Aliphatic polyisocyanate (HDI trimer).  
As the hardener component for lightfast polyurethane coating systems.

**Form supplied** solvent-free

Specification Property	Value	Unit of measurement	Method
NCO content	21.8 ± 0.3	%	DIN EN ISO 11 909
Viscosity at 23 °C	3,000 ± 750	mPa·s	DIN EN ISO 3219/A.3
Color value (Hazen)	≤ 40		DIN EN 1557
Monomeric HDI	< 0.15	%	DIN EN ISO 10 283

Other data* Property	Value	Unit of measurement	Method
Viscosity at 25 °C	approx. 2,500	mPa·s	DIN EN ISO 3219/A.3
Equivalent weight	approx. 193		
Flash point	approx. 228	°C	DIN 22 719
Density at 20 °C	approx. 1.16	g/ml	DIN EN ISO 2811

\*These values provide general information and are not part of the product specification.

# Desmodur<sup>®</sup> N 3300

## Solubility / thinnability

Desmodur<sup>®</sup> N 3300 can be thinned with esters, ketones and aromatic hydrocarbons such as ethyl acetate, butyl acetate, methoxypropylacetate, acetone, methyl ethyl ketone, methyl isobutyl ketone, cyclohexanone, toluene, xylene, solvent naphtha<sup>®</sup> 100 and mixtures thereof.

Generally speaking, it has good compatibility with the solvents listed. However, the solutions formed must be tested for their storage stability. Only PU grade solvents should be used (max. 0.05 % water, absence of reactive groups such as hydroxyl or amino groups). Aliphatic hydrocarbons are unsuitable as solvents.

Desmodur<sup>®</sup> N 3300 should not be thinned to below a solids content of 40 %. Prolonged storage of a solution with a lower binder content may result in turbidity and sedimentation.

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## Compatibility

Generally speaking, Desmodur<sup>®</sup> N 3300 can be mixed with the following products: aliphatic polyisocyanates such as Desmodur<sup>®</sup> N 100, N 75, N 3200, N 3400, N 3600 and Desmodur<sup>®</sup> Z 4470; aromatic polyisocyanates such as Desmodur<sup>®</sup> L, HL and IL; polyester polyols such as Desmophen<sup>®</sup> 670; polyacrylates such as the Desmophen<sup>®</sup> A products. However, the compatibility of the combinations used should always be tested.

Desmodur<sup>®</sup> N 3300 is not compatible with branched polyester polyols such as Desmophen<sup>®</sup> 651 or polyether polyols such as Desmophen<sup>®</sup> 1380 BT.

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## Properties / Applications

Desmodur<sup>®</sup> N 3300 is used primarily as the hardener component for lightfast two-component polyurethane coatings with high resistance to chemicals and weathering, very good gloss retention and outstanding mechanical properties. Preferred co-reactants are polyacrylate or polyester polyols.

The main applications for systems based on Desmodur<sup>®</sup> N 3300 are air- and force-drying coatings for automotive OEM, automotive refinishing, transportation, industrial finishing and plastics.

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## Storage

- Storage in original sealed Covestro container.
- Recommended storage temperature: 0 - 30 °C.
- Protect from moisture, heat and foreign material.

General information: The product is sensitive to moisture. Storage at higher temperatures will result in increase of color and viscosity. Storage at significant lower temperatures will result in solidification. This solidification is reversible by briefly heating the product without adversely affecting the quality of the product.

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## Storage time

Covestro represents that, for a period of nine months following the day of shipment as stated in the respective transport documents, the product will meet the specifications or values set forth in section "specifications or characteristic data" above, what ever is applicable, provided that the product is stored in full compliance with the storage conditions set forth in and referenced under section "storage" above and is otherwise handled appropriately.

The lapse of the nine months period does not necessarily mean that the product no longer meets specifications or the set values. However, prior to using said product, Covestro recommends to test such a product if it still meets the specifications or the set values. Covestro does not make any representation regarding the product after the lapse of the nine months period and Covestro shall not be responsible or liable in any way for the product failing to meet specifications or the set values after the lapse of the nine months period.



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**Labeling and statutory requirements** This product data sheet is only valid in conjunction with the latest edition of the corresponding Safety Data Sheet. Any updating of safety-relevant information – in accordance with statutory requirements – will only be reflected in the Safety Data Sheet, copies of which will be revised and distributed. Information relating to the current classification and labeling, applications and processing methods and further data relevant to safety can be found in the currently **valid Safety Data Sheet**.

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**Further information** The product is used mainly as a hardener in coating materials or adhesives. The handling of coating materials or adhesives containing reactive polyisocyanates and residual **monomeric HDI** requires appropriate protective measures referred to in the safety data sheet. These products may therefore be used only in industrial or trade applications. **They are not suitable for use in homemaker (DIY) applications.**

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The manner in which you use and the purpose to which you put and utilize our products, technical assistance and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations, are beyond our control. Therefore, it is imperative that you test our products, technical assistance, information and recommendations to determine to your own satisfaction whether our products, technical assistance and information are suitable for your intended uses and applications. This application-specific analysis must at least include testing to determine suitability from a technical as well as health, safety, and environmental standpoint. Such testing has not necessarily been done by Covestro. Unless we otherwise agree in writing, all products are sold strictly pursuant to the terms of our standard conditions of sale which are available upon request. All information and technical assistance is given without warranty or guarantee and is subject to change without notice. It is expressly understood and agreed that you assume and hereby expressly release us from all liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance, and information. Any statement or recommendation not contained herein is unauthorized and shall not bind us. Nothing herein shall be construed as a recommendation to use any product in conflict with any claim of any patent relative to any material or its use. No license is implied or in fact granted under the claims of any patent.

This product is not designated for the manufacture of a medical device or of intermediate products for medical devices<sup>1)</sup>. [This product is also not designated for other specifically regulated applications (e.g. including cosmetics, plant protection, fertilisers, plant strengtheners, food processing, food contact and others). If the intended use of the product is for the manufacture of a medical device or of intermediate products for medical devices or for other specifically regulated applications Covestro must be contacted in advance to provide its agreement to sell such product for such purpose.] Nonetheless, any determination as to whether a product is appropriate for use in a medical device or intermediate products for medical devices, for Food Contact products or cosmetic applications must be made solely by the purchaser of the product without relying upon any representations by Covestro.

1) Please see the "Guidance on Use of Covestro Products in a Medical Application" document.  
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 **Desmodur<sup>®</sup>**  
Product Datasheet