

# Desmodur<sup>®</sup> BL 3370 MPA

## Characterization

Blocked aliphatic polyisocyanate based on HDI.

In combination with Desmophen<sup>®</sup> grades to formulate lightfast, one-component stoving polyurethane coatings with high resistance to thermal yellowing; as an additive in conventional stoving coating systems to improve the reactivity, flexibility and adhesion.

## Form supplied

approx. 70 % in 1-methoxypropylacetate-2 (MPA).

## Specification

Property	Value	Unit of measurement	Method
Non-volatile content (1 g / 60 min / 80 °C)	70 ± 3	%	M020-ISO 3251
Viscosity at 23 °C	3,800 ± 1,200	mPa·s	M014-ISO 3219/A.3
Color (Hazen)	≤ 60		M017-EN 1557
Free NCO content, modified	≤ 0,20	%	M105-ISO 11909

## Other data\*

Property	Value	Unit of measurement	Method
Blocked NCO content	approx. 8.9	%	
Viscosity at 25 °C	approx. 3,200	mPa·s	M014-ISO 3219/A.3
Equivalent weight	approx. 470		
Flash point	approx. 49	°C	DIN 53 213/1
Density	approx. 1.08	g/cm <sup>3</sup>	DIN EN ISO 2811

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

# Desmodur<sup>®</sup> BL 3370 MPA

## Solubility / thinnability

Desmodur<sup>®</sup> BL 3370 MPA 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, 150, 200 S and mixtures thereof. Generally speaking, it has good compatibility with the solvents listed. However, the solutions formed must be tested for their storage stability. Aliphatic hydrocarbons are unsuitable as solvents.

Desmodur<sup>®</sup> BL 3370 MPA 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.

## Compatibility

Given equivalent crosslinking, Desmodur<sup>®</sup> BL 3370 MPA is generally compatible with Desmophen<sup>®</sup> 651, 670, 680, 690, 800, 1100, 1300, RD 181, A 160, A 365 and A 450 and with Desmophen<sup>®</sup> T 1665. The combinations should always be tested for their compatibility.

## Properties / Applications

Desmodur<sup>®</sup> BL 3370 MPA is combined with polyols to formulate light-fast and weather-stable one-component polyurethane stoving coatings.

The main applications are in high-grade industrial finishes (can-/coil-coatings, etc.) and in primer surfacers for automotive OEM. Desmodur<sup>®</sup> BL 3370 MPA can also be used as an additive in conventional stoving systems to improve the flexibility and adhesion.

Typical stoving conditions are:

100 °C	50 min
or 120 °C	20 min
or 160 °C	7 min

Depending on the co-reactant used and the stoving time, yellowing may occur at temperatures above 160 °C.

Under coil-coating conditions, adequate crosslinking is achieved from approx. 216 °C PMT (peak metal temperature). The addition of catalyst to Desmodur<sup>®</sup> BL 3370 MPA is not necessary.

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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: 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 six 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 six 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 six 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 six 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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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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