

Desmodur[®] BL 3575/1 MPA/SN

Characterization

Desmodur BL 3575/1 MPA/SN is a blocked aliphatic polyisocyanate based on hexamethylene diisocyanate (HDI).

It is suitable for use in combination with Desmophen[®] grades to formulate lightfast, one-component stoving polyurethane coatings.

Form supplied

Form supplied is approximately 75% in solvent naphtha 100/1-methoxypropylacetate-2 (17 : 8).

Characteristic data

Property	Value	Unit of measurement	Method
Non-volatile content (0.2g/60 min/80°C)	75 ± 2	%	
Viscosity at 23°C	3,600 ± 1,000	mPa•s	
Hazen color value	≤ 100		

Other data*

Property	Value	Unit of measurement	Method
Equivalent weight	approx. 400		
Blocked NCO content	approx. 10.5	%	
Density at 20°C	approx. 1.1	g/ml	
Flash point	approx. 53	°C	

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

Desmodur[®] BL 3575/1 MPA/SN

Solubility / thinnability

Desmodur BL 3575/1 MPA/SN can be thinned with esters, ketones and aromatic hydrocarbons such as: ethyl acetate, butyl acetate, methoxypropylacetate, acetone, methyl isobutyl ketone, toluene, xylene, solvent naphtha 100, 150 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 BL 3575/1 MPA/SN should not be thinned below a solids content of 40%, with solvent naphtha to not less than 60%. Prolonged storage of a solution with a lower binder content may result in turbidity and sedimentation.

Compatibility

Given equivalent crosslinking, Desmodur BL 3575/1 MPA/SN polyisocyanate exhibits good compatibility with polyols such as Desmophen T 1665. The combinations should always be tested for their compatibility.

Properties / Applications

Desmodur BL 3575/1 MPA/SN is combined with Desmophen types to formulate light-fast, weather-stable, chemical- and highly heat-resistant, one-component polyurethane stoving coatings.

The main applications are in topcoats for automotive OEM and in high-grade industrial finishes (can-/coil-coatings, etc.).

Compared with Desmodur BL 3175 SN, Desmodur BL 3575/1 MPA/SN allows a reduction in the stoving temperature of approximately 10°C, without any decrease in solvent and chemical resistance.

Typical stoving conditions without catalyst are, e.g. for combinations with Desmophen T 1665: 160°C for 20 minutes, 170°C for 10 minutes, or 190°C for 5 minutes.

The use of a metal catalyst can significantly reduce the stoving temperatures. Used in the coil coating systems, Desmodur BL 3575/1 MPA/SN achieves sufficient crosslinking without the addition of a catalyst from a peak metal temperature of approx. 232°C and above.

As with any product, use of Desmodur BL 3575/1 MPA/SN in a given application must be tested (including but not limited to field testing) in advance by the user to determine suitability.

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Handling instructions

This product contains reactive HDI polyisocyanate/prepolymer and/or monomeric HDI and should only be handled using appropriate protective measures. Please review this product's Safety Data Sheet for a summary of such protective measures. These products are suitable only for and should only be sold for use by industrial or trade (commercial) professionals. These products are not suitable for Do-It-Yourself applications.

Storage

Desmodur BL 3575/1 MPA/SN should be stored in tightly sealed original containers and protected from moisture, heat, and foreign materials. 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. Recommended storage temperature is 0°-30°C.

Storage time

Desmodur BL 3575/1 MPA/SN has a shelf life of nine months from date of receipt at customer, provided the material is stored in sealed original containers at the recommended storage temperature.

Other Information

Desmodur[®] and Desmophen[®] are registered trademarks of Covestro AG.

Health and Safety Information

Appropriate literature has been assembled which provides information concerning the health and safety precautions that must be observed when handling this product. Before working with this product, you must read and become familiar with the available information on its risks, proper use, and handling. This cannot be overemphasized. Information is available in several forms, e.g., safety data sheets and product labels. For further information contact your Covestro LLC representative or the Product Safety and Regulatory Affairs Department in Pittsburgh, PA.

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 and information 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 us. 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.

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