

# Desmodur<sup>®</sup> N 75 BA/X

## Characterization

Desmodur N 75 BA/X is an aliphatic polyisocyanate resin based on hexamethylene diisocyanate (HDI) and dissolved in n-butyl acetate and xylene (1:1).

## Characteristic data

Property	Value	Unit of measurement	Method
NCO content	16.5 ± 0.3	%	
Viscosity at 25°C	150 ± 60	mPa*s	
Hazen color value	max. 60		
Monomeric HDI	max. 0.5	%	
Solids	75 ± 1	%	

## Other data\*

Property	Value	Unit of measurement	Method
Appearance	Clear, slightly yellow liquid		
Flash point (Setaflash)	33	°C	
Equivalent weight avg. (as supplied)	255		
Viscosity at 23°C	160	mPa*s	
Specific gravity at 25°C	1.06	g/cm <sup>3</sup>	
Weight per gallon at 25°C	8.85	lb.	

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

## Solubility / thinnability

Desmodur N 75 BA/X polyisocyanate can be diluted with ethyl acetate, butyl acetate, PM acetate, toluene, xylene and most ketones. It is insoluble in aliphatic hydrocarbons. Since Desmodur N 75 BA/X is sensitive to moisture, polyurethane grade solvents with moisture content less than 500 ppm (0.05%) should be used. When diluting Desmodur N 75 BA/X, the solids content should not be lower than 35%; otherwise turbidity and precipitation may occur.

Alcohols and amines should not be used, as they react with Desmodur N 75 BA/X polyisocyanate.

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## Compatibility

Desmodur N 75 BA/X is compatible with a variety of other Desmodur polyisocyanates such as Desmodur N 3200, N 3390A BA/SN, Z 4470, HL, and IL, as well as the various Desmodur L aromatic polyisocyanates. Generally, good compatibility is observed with most polyesters, hydroxyl-functional acrylics and polyethers.

## Properties / Applications

Desmodur N 75 BA/X aliphatic polyisocyanate is recommended for use in two-component clear and pigmented interior and exterior finishes. Coatings based on Desmodur N 75 BA/X exhibit excellent gloss retention and weather resistance when formulated with appropriate hydroxyl-functional coreactants. These coatings also have very good resistance to solvents, chemicals, and abrasion.

Desmodur N 75 BA/X polyisocyanate is typically used with either polyester or acrylic hydroxyl-functional coreactants. Combinations with acrylic resins are usually fast drying with short dust free times and have relatively low polyisocyanate demand. Using highly functional polyester coreactants with Desmodur N 75 BA/X polyisocyanate results in coatings with improved chemical and abrasion resistance, with a higher level of polyisocyanate required, and drying at a slower rate.

To accelerate the drying and ensure adequate performance properties of systems containing Desmodur N 75 BA/X, dibutyltin dilaurate should be added to the formulation at the level of 0.005 –0.01% based on resin solids. Other catalysts which can be used effectively are Desmorapid PP (up to 0.5%) or, 8% zinc octoate (up to 0.2%), each based on total resin solids of the system. Adding a catalyst reduces the pot life of the formulation and should be evaluated thoroughly.

Desmodur N 75 BA/X polyisocyanate is suitable for the formulation of moisture-curing one-component coatings. Up to 1% dibutyltin dilaurate based on resin solids is required whenever Desmodur N 75 BA/X is used alone in a moisture-curing coating. As with any product, use of Desmodur N 75 BA/X polyisocyanate in a given application must be tested (including but not limited to field testing) in advance by the user to determine suitability.

## 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 Material 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.



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<b>Storage</b>	Desmodur N 75 BA/X polyisocyanate should be stored in tightly sealed containers and protected from heat, moisture, and foreign materials. Processability of this product can be adversely affected by contamination. Recommended storage temperatures are -30° to 122°F (-34° to 50°C).
<b>Storage time</b>	Desmodur N 75 BA/X has a storage life of six months from date of receipt at customer, when stored in closed original containers at 77°F (25°C). 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.
<b>Other Information</b>	Desmodur <sup>®</sup> and Desmophen <sup>®</sup> are registered trademark of the Covestro Group.
<b>Health and Safety Information</b>	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 utilize 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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