

# Baydur<sup>®</sup> TB 100-15

## Characterization

The Baydur TB 100-15 thermal break system produces a structural, full density polyurethane used for window applications.

## Properties / Applications

The Baydur TB 100-15 thermal break system produces a structural, full density polyurethane used for window applications. The system is supplied as two reactive liquid components. Component A is a polymeric diphenylmethane diisocyanate (PMDI), and Component B is a formulated polyol system that is phase stable.

Baydur TB 100-15 is a fast debridging system, designed to have excellent physical properties while exhibiting minimal wet shrinkage. As with any product, use of the Baydur TB 100-15 system in a given application must be tested (including field testing, etc.) in advance by the user to determine suitability.

## Storage and Handling

Isocyanate Component – Component A (PMDI isocyanate) will react with moisture and must be stored in tightly closed containers to prevent contamination with moisture and foreign materials, which can adversely affect processing. It will react slowly with water to form polyureas and liberate carbon dioxide gas, which may cause sealed containers to expand and rupture. Storage temperature should be maintained between 10° and 30°C (50° and 86°F).

Polyol Component – Component B (polyol) is hygroscopic and may absorb water. Containers must be kept closed and protected from moisture and foreign materials, which can adversely affect processing. Storage should be maintained at ambient temperature.



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## Typical Properties\* of System

Property	ASTM Test Method	Value
Density	D 1622	72 pcf
Thickness		0.250 in
Tensile Strength	D 638	5,700 psi
Elongation	D 638	30 %
Flexural Modulus	D 790	225,000 psi
Izod Impact, Notched	D 256	1.9 ft•lb/in
Heat Distortion	D 648	178°F @ 66 psi
Hardness	D 2240	78 Shore D at 5 seconds
K-factor	C 518	0.90 BTU in/hr ft <sup>2</sup> °F

## Typical Properties\* of Components

Property	Isocyanate (Component A)	Polyol (Component B)
Appearance	Dark brown liquid	Black liquid
Specific Gravity at 25°C	1.24	1.08
Viscosity at 25°C, mPa•s	200	600
Density @ 25°C, lb/gal	10.35	9.01

## Processing Conditions

Molding Parameters*	Value
<b>Property</b>	
Material Temperature	70 - 95°F
Hand Mix Reactivity, 80°F	20 seconds
Machine Reactivity, 80°F	12 -15 seconds
Mix Ratio by weight	85/100 Iso/Polyol
Mix Ratio by volume	75/100 Iso/Polyol
Debridge Time**	5 - 10 minutes

*\*These items are provided as general information only. They are approximate values and are not part of the product specifications.*

*\*\* Debridging times are for profiles that are 75°F or warmer. Colder profiles may require additional time for debridging.*



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*Note: Plaques were post cured at 70°C for 2 hours.*

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## 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.

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Editor: Covestro LLC  
1 Covestro Circle  
Pittsburgh, Pennsylvania 15205  
United States  
[www.covestro.com](http://www.covestro.com)

**Contact:**  
General Information  
Tel. 1-844-646-0545

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Document contains important information and must be read in its entirety.

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 **Baydur<sup>®</sup>**

**Product Datasheet**