Baydur® TB 100-40R

Properties / Applications

The Baydur TB 100-40R 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 100-40R 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 100-40R system in each 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.

Edition 2023--2-0103

Baydur® TB 100-40R

Typical Properties* of System

Property	ASTM Test Method	Value
Density	D 1622	72 pcf
Coefficient linear expansion		9.34 in/in
Tensile Strength	D 638	5,500 ± 500 psi
Elongation	D 638	25 ± 5 %
Flexural Modulus	D 790	225,000 psi
Izod Impact, Notched	D 256	2.2 ± .3 ft•lb/in
Heat Distortion	D 648	178°F ± 5 @ 66 psi
Hardness	D 2240	80 ± 2 Shore D
K-factor	C 518	0.90 BTU in/hr ft^2 °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
Property	
Material Temperature	70 - 95°F
Hand Mix Reactivity, 80°F	20 seconds
Machine Reactivity, 80°F	12 -15 seconds
Mix Ratio by weight	89/100 Iso/Polyol
Mix Ratio by volume	77/100 Iso/Polyol
Debridge Time**	5 - 10 minute

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

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

Baydur® TB 100-40R

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 information contact your Covestro LLC representative or the Product Safety and Regulatory Affairs Department in Pittsburgh, PA.

The way 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 are 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 as “Medical Grade” and therefore shall not be considered a candidate for the manufacture of a medical device or of intermediate products for medical devices, which are intended under normal use to be brought into direct contact with the patient's body (e.g., skin, body fluids or tissues, including indirect contact to blood). If the intended use of the product is for the manufacture of a medical device or of intermediate products for medical devices, Covestro LLC must be contacted in advance, in writing, 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 must be made solely by the purchaser of the product without relying upon any representations by Covestro LLC. For further information, please see the "Guidance on Use of Covestro Products in a Medical Application" document which can be located at www.productsafetyfirst.covestro.com

Editor: Covestro LLC
1 Covestro Circle
Pittsburgh, Pennsylvania 15205
United States
www.covestro.com

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