



# Chemline SM853

## MDI-Polyester Hot Cast Prepolymer

### Description

**Chemline SM853** is an MDI/polyester-based prepolymer. Curing with 1,4 Butanediol yields 86 Shore A elastomer highlighted by:

- √ Excellent oil and solvent resistance
- √ High cut/tear strength
- √ Good abrasion resistance
- √ Liquid at room temperature

### Packaging, Storage, & Shelf Life

**Chemline SM853** is available in 55-gallon drums and 5-gallon pails. Store in sealed containers between 60°F and 90°F. Shelf life is 12 months under normal conditions.

### Safety

This product is for industrial use only. Avoid contact with eyes and skin. Do not inhale or ingest. Be sure to read SDS in its entirety prior to using **Chemline SM853**.

### Liquid Prepolymer Properties

Property	Value
Physical State at 25°C	Waxy solid to viscous liquid
%NCO	6.70-7.00%
Viscosity	
70°C (158°F)	TBD
82°C (180°F)	TBD
100°C (212°F)	700-1000 cps

### Typical Processing Conditions

Property	1,4 Butanediol
Prepolymer Temperature	80°C (175°F)
Curative Temperature	25°C (77°F)
Curative Level (95% stoichiometry, 6.8% NCO)	6.92 pph
Mold Temperature	115°C (240°F)
Pot Life	5-6 minutes
Post Cure Time	16 hours at 115°C (240°F)

### Cured Elastomer Properties

Property	1,4 Butanediol
Hardness, Shore A	86 A
100% Modulus	890 psi (6.1 MPa)
200% Modulus	1200 psi (8.3 MPa)
300% Modulus	1600 psi (11.0 MPa)
Tensile Strength	6500 psi (44.8 MPa)
Elongation	550%
Die C Tear Strength	450 pli (78.8 kN/m)
Trouser Tear	110 pli (19.3 kN/m)
Bashore Rebound	30%

\*Values obtained in laboratory setting for comparison purposes only and should not be considered specifications.

Revised 08/2017

Chemline, Inc. • 5151 Natural Bridge Rd. • St. Louis, MO 63115 • Phone: (314) 664 - 2230  
• 19500 S. Alameda St. • Los Angeles, CA 90221 • Phone: (310) 764 - 0820

While the descriptions, designs, data and information contained herein are presented in good faith and believed to be accurate, it is provided for your guidance only. Because many factors may affect processing or application/use, we recommend that you make tests to determine the suitability of a product for your particular purpose prior to use. NO WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA, OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. Further, you expressly understand and agree that the descriptions, designs, data, and information furnished by Chemline, Inc. hereunder are provided gratis and Chemline assumes no obligation or liability for the descriptions, designs, data and information given or results obtained, all such being given and accepted at your risk.