



Chemline SM850

MDI-Polyester Hot Cast Prepolymer

Description

Chemline SM850 is a MDI/polyester-based prepolymer. Curing with 1,4 Butanediol or 1,4 Butanediol/Chemline S500 polyol blends yields 60-85 Shore A elastomers.

Chemline SM850 is highlighted by:

- ✓ Good oil and solvent resistance
- ✓ High cut/tear strength
- ✓ Superior abrasion resistance

Liquid Prepolymer Properties

Property	Value
Physical State at 25°C	Waxy solid
%NCO	6.50-6.90%
Viscosity	
70°C (158°F)	2500 cps
82°C (180°F)	1500 cps
100°C (212°F)	750 cps

Typical Processing Conditions

Property	1,4 Butanediol	1,4 Butanediol/ChemlineS500
Prepolymer Temperature	85-93°C (185-200°F)	85-93°C (185-200°F)
Curative Temperature	25°C (77°F)	25°C (77°F) / 60°C (140°F)
Curative Level (95% stoichiometry, 6.65% NCO)	6.77 pph	Varies
Mold Temperature	115°C (240°F)	115°C (240°F)
Pot Life	3-4 minutes	Depends on catalyst level
Demold Time	1 hour	1-2 hours (depends on catalyst level)
Post Cure Time	16 hours at 115°C (240°F)	16 hours at 115°C (240°F)

Cured Elastomer Properties

Property	1,4 Butanediol	80/20 Blend	60/40 Blend	40/60 Blend
Hardness, Shore A	85-86 A	78-79 A	69 A	62 A
100% Modulus	850 psi (5.9 MPa)	570 psi (3.9 MPa)	465 psi (3.2 MPa)	310 psi (2.1 MPa)
200% Modulus	1170 psi (8.1 MPa)	770 psi (5.3 MPa)	650 psi (4.5 MPa)	400 psi (2.8 MPa)
300% Modulus	1730 psi (11.9 MPa)	1140 psi (7.8 MPa)	1090 psi (7.5 MPa)	540 psi (3.7 MPa)
Tensile Strength	7200 psi (49.6 MPa)	6360 psi (43.8 MPa)	5620 psi (38.7 MPa)	3830 psi (26.4 MPa)
Elongation	700%	500%	500%	530%
Die C Tear Strength	550 pli (96.3 kN/m)	350 pli (61.2 kN/m)	280 pli (49.0 kN/m)	210 pli (36.7 kN/m)
Trouser Tear	280 pli (49.0 kN/m)	TBD	TBD	TBD
Compression Set	28%	TBD	TBD	TBD
Bashore Rebound	36%	37%	40%	43%

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

Revised 06/2017

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.



Chemline SM850

MDI-Polyester Hot Cast Prepolymer

Packaging, Storage, & Shelf Life

Chemline SM850 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 SM850**.

Revised 07/2016

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.