



Chemline ST731

TDI-Polyester Hot Cast Prepolymer

Description

Chemline ST731 is a TDI/polyester-based prepolymer. Curing with MBCA yields a 71-75 Shore A elastomer highlighted by:

- √ Good tear and fatigue resistance
- √ High resilience
- √ Excellent abrasion resistance
- √ High resistance to solvents and oil

Packaging, Storage, & Shelf Life

Chemline ST731 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 ST731**.

Liquid Prepolymer Properties

| Property | Value |
|------------------------|---------------|
| Physical State at 25°C | Waxy solid |
| %NCO | 2.55-2.70% |
| Viscosity | |
| 70°C (158°F) | TBD |
| 82°C (180°F) | TBD |
| 100°C (212°F) | 1100-1400 cps |

Typical Processing Conditions

| Property | Value |
|--|---------------------------|
| Prepolymer Temperature | 90°C (190°F) |
| MBCA Temperature | 116°C (240°F) |
| MBCA Level (95% stoichiometry, 2.65% NCO) | 8.0 pph |
| Mold Temperature | 100°C (212°F) |
| Pot Life | 9 minutes |
| Demold Time | 60 minutes |
| Post Cure Time | 16 hours at 100°C (212°F) |

Cured Elastomer Properties

| Property | Value |
|---------------------|---------------------|
| Hardness, Shore A | 71-75 A |
| 100% Modulus | 370 psi (2.6 MPa) |
| 200% Modulus | 460 psi (3.2 MPa) |
| 300% Modulus | 660 psi (4.6 MPa) |
| Tensile Strength | 5600 psi (38.6 MPa) |
| Elongation | 690% |
| Die C Tear Strength | 275 pli (48.2 kN/m) |
| Split Tear | 125 pli (21.9 kN/m) |
| Bashore Rebound | 36% |

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

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