



Chemline ST520

TDI-Polyester Hot Cast Prepolymer

Description

Chemline ST520 is a TDI/polyester-based prepolymer. Curing with TMP/TIPA (3:1) or ethoxylated TMP yields 52-55 Shore A elastomers.

Chemline ST520 is highlighted by:

- √ Low durometers
- √ Good chemical and solvent resistance
- √ Low compression set
- √ Good abrasion resistance

Liquid Prepolymer Properties

Property	Value
Physical State at 25°C	Waxy solid
%NCO	3.15-3.45%
Viscosity	
70°C (158°F)	2950 cps
82°C (180°F)	1640 cps
100°C (212°F)	787 cps

Typical Processing Conditions

Property	TMP/TIPA 3:1	Ethoxylated TMP
Prepolymer Temperature	100°C (212°F)	100°C (212°F)
Curative Temperature	60°C (140°F)	25°C (77°F)
Curative Level (95% stoichiometry, 3.44% NCO)	3.83 pph	7.10 pph
Mold Temperature	115°C (240°F)	115°C (240°F)
Pot Life	60 minutes	60 minutes
Post Cure Time	16 hours at 115°C (240°F)	16 hours at 115°C (240°F)

Cured Elastomer Properties

Property	TMP/TIPA 3:1	Ethoxylated TMP
Hardness, Shore A	52-55 A	52-55 A
100% Modulus	280 psi (1.9 MPa)	300 psi (2.1 MPa)
200% Modulus	420 psi (2.9 MPa)	450 psi (3.1 MPa)
300% Modulus	595 psi (4.1 MPa)	650 psi (4.5 MPa)
Tensile Strength	4200 psi (29.0 MPa)	4050 psi (27.9 MPa)
Elongation	480%	440%
D1938 Tear Strength	12 pli (2.1 kN/m)	11 pli (1.9 kN/m)
Bashore Rebound	28%	38%

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

Revised 05/2016

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Packaging, Storage, & Shelf Life

Chemline ST520 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 ST520**.

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