



# Chemline ST570

## TDI-Polyester Hot Cast Prepolymer

### Description

Chemline ST570 is a TDI/polyester-based prepolymer. Curing with TMP/TIPA blends or similar triols yields a 57 Shore A elastomer highlighted by:

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

### Solvent Swell Data \*

Mass % Increase	Volume % Increase	
MEK	74	121
Acetone	79	134
Toluene	20	32
IPA	1.7	2.3
EG	0.25	1.4
H2O	0.94	2.6

\*Results are for a 3/1 blend of TMP/TIPA.

\*Values obtained after 14 days at room temperature.

### Packaging, Storage, & Shelf Life

Chemline ST570 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 ST570.

### Liquid Prepolymer Properties

Property	Value
Physical State at 25°C	Waxy solid
%NCO	4.00-4.40
Viscosity	
70°C (158°F)	2900 cps
82°C (180°F)	1550 cps
100°C (212°F)	700 cps

### Typical Processing Conditions

Property	Value
Prepolymer Temperature	100°C (212°F)
TMP/TIPA Temperature	60°C (140°F)
TMP/TIPA Level ** (95% stoichiometry, 4.40% NCO)	4.6 pph
Mold Temperature	115°C (240°F)
Pot Life	45 minutes
Post Cure Time	16 hours at 115°C-127°C (240°F-260°F)

\*\*Values apply to a 3/1 blend of TMP/TIPA.

### Cured Elastomer Properties

Property	Value
Hardness, Shore A	57 A
100% Modulus	320 psi (2.2 MPa)
200% Modulus	540 psi (3.7 MPa)
300% Modulus	970 psi (6.7 MPa)
Tensile Strength	3300 psi (22.8 MPa)
Elongation	400%
Die C Tear Strength	170 pli (29.8 kN/m)
Compression Set, Method B (22 hours at 70°C)	7%
Bashore Rebound	10%

\*\*\*Results are for a 3/1 blend of TMP/TIPA.

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

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