



# Chemline CT600

## TDI-Polycaprolactone Hot Cast Prepolymer

### Description

**Chemline CT600** is a TDI/polycaprolactone-based prepolymer. Curing with MBCA, DMTDA or MCDEA yields 60 Shore A, 75 Shore A or 89 Shore A high performance elastomers.

**Chemline CT600** is highlighted by:

- √ Low durometer without a blended curative
- √ High impact absorption
- √ Good chemical resistance
- √ Low compression set
- √ High abrasion resistance

### Liquid Prepolymer Properties

Property	Value
Physical State at 25°C	Waxy solid
%NCO	3.15-3.55%
Viscosity	
70°C (158°F)	1700-2100 cps
82°C (180°F)	1000-1300 cps
100°C (212°F)	500-650 cps

### Typical Processing Conditions

Property	MBCA	DMTDA	MCDEA
Prepolymer Temperature	100°C (212°F)	85°C (185°F)	82°C (180°F)
Curative Temperature	115°C (240°F)	25°C (77°F)	100°C (212°F)
Curative Level (95% stoichiometry, 3.44% NCO)	10.4 pph	8.3 pph	14.1 pph
Mold Temperature	115°C (240°F)	115°C (240°F)	115°C (240°F)
Pot Life	9-10 minutes	9-10 minutes	4-5 minutes
Demold Time	60 minutes	60 minutes	30 minutes
Post Cure Time at 115°C (240°F)	16 hours	16 hours	16 hours

### Cured Elastomer Properties

Property	MBCA	DMTDA	MCDEA
Hardness, Shore A	60	75	89
100% Modulus	270 psi (1.9 MPa)	560 psi (3.9 MPa)	950 psi (6.6 MPa)
200% Modulus	350 psi (2.4 MPa)	830 psi (5.7 MPa)	1370 psi (9.4 MPa)
300% Modulus	430 psi (3.0 MPa)	1260 psi (8.7 MPa)	2900 psi (20.0 MPa)
Tensile Strength	3450 psi (23.8 MPa)	6000 psi (41.3 MPa)	5640 psi (38.9 MPa)
Elongation	500%	490%	335%
Die C Tear Strength	180 pli (31.5 kN/m)	350 pli (61.3 kN/m)	430 pli (75.3 kN/m)
Bashore Rebound	20%	45%	50%
Compression Set, Method B 22 hours at 70°C	10%	27%	TBD

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

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## Packaging, Storage, & Shelf Life

**Chemline CT600** 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 CT600**.

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