

Xthane TLF-90E

Modified Toluene Diisocyanate (TDI) Terminated Polyether Prepolymer

Typical Properties of TLF-90E Prepolymer		
NCO, %	3.9 – 4.3	Viscosity @ 212°F (100°C) 500 - 600
Specific Gravity @ 25°C	1.06	
Appearance @ 25°C	Colorless to light yellow liquid	

Product Description:

Xthane TLF-90E is a TDI terminated polyether prepolymer for use in high property elastomers, elastomeric coatings and adhesives applications with a need for good tear strength, good abrasion resistance and excellent flex life. As with all polyurethane products, application and field testing are necessary to determine suitability of the selected product or product combination for each specific application.

Storage and Handling:

Containers should be kept tightly closed to prevent moisture contamination. TDI will react with water to liberate CO² gas potentially causing containers to expand and rupture. Do not reseal if contamination is suspected. Use of a dry nitrogen blanket for partial drums is recommended. Storage for Xthane TLF-90E should be in a cool, dry place at ambient temperatures. Exposure to temperatures over 350°F (177°C) can create excessive pressure potentially causing containers to rupture.

Do not breathe aerosol or vapors and avoid contact with skin and eyes. Use protective equipment including respirator when handling heated TDI as exposure to vapors of heated TDI can be dangerous. To heat product properly, use well ventilated convection ovens. Avoid using drum heaters.

Typical Physical Properties using MBCA		TLF-90E
Hardness	Shore A	90
Resilience	% Rebound	45
Split Tear Strength	PLI	75
Die C Tear Strength	PLI	400
Tensile Strength	PSI	4500
Ultimate Elongation	%	450
100% Modulus	PSI	1100
300% Modulus	PSI	2100
Compression Set	%	27

Processing Characteristics using MBCA		TLF-90E
NCO		3.9 – 4.3%
Curative Level	Stoichiometry	
Mix Temperature		212°F
Pot Life	Minutes	10
Cure Time	@ 212°F	1 hour
Demolding Time	Minutes	30 – 45
Recommended Post Cure Time	@ 185°F (70°C)	16 hours

Health and Safety Information:

Appropriate literature has been assembled which provides information concerning the health and safety precautions that must be observed when handling any of the products listed above. Before working with these products, it is your responsibility to read and become familiar with the available information on its hazards, proper use and handling. This is extremely important and cannot be overemphasized. Information is available in several forms, e.g. material safety data sheets and product labels. To obtain this information, contact your ITWC, Inc. representative.

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