

Xthane IT-55

Modified Diphenylmethane Diisocyanate (MDI) Terminated Polyester Prepolymer

Typical Properties of IT-55 Prepolymer			
NCO, %	6.80 – 7.05	Viscosity, mPa·s @ 80°C	1080
Specific Gravity @ 25°C	1.20	@ 100°C	540
Appearance @ 25°C	White to yellowish solid	Flash Point	390°F (199°C)

Product Description:

Xthane IT-55 is an MDI terminated polyester prepolymer for use in high property elastomers, elastomeric coatings and adhesives applications. 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. MDI will react with water to form polyureas and 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 IT-55 should be maintained between ambient and 90°F (32°C). Exposure to temperatures over 400°F (204°C) can create excessive pressure potentially causing containers to rupture.

Do not breathe aerosol or vapors. Exposure to vapors of heated MDI can be dangerous. To heat product properly, use well ventilated convection ovens. Avoid using drum heaters.

Typical Physical Properties using EXT-1006			IT-55
Hardness	Shore A		86
Resilience	% Rebound		52
Split Tear Strength	PLI		290
Die C Tear Strength	PLI		490
Tensile Strength	PSI		6900
Ultimate Elongation	%		520
100% Modulus	PSI		760
200% Modulus	PSI		1120
300% Modulus	PSI		1725
Compression Set	%		23

Processing Characteristics using EXT-1006			IT-55
NCO Range			6.80 – 7.05%
NCO / OH Ratio			1.03
Prepolymer Temperature			200°F
Extender Temperature			150°F
Mold temperature			260°F
Pot Life	Minutes		9 - 11

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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