

Xthane IT-22

Modified Diphenylmethane Diisocyanate (MDI) Terminated Polyester Prepolymer

| Typical Properties of IT-22 Prepolymer | | | |
|--|-------------------------|-------------------------|---------------|
| NCO, % | 6.5 – 6.7 | Viscosity, mPa·s @ 80°C | 1460 |
| Specific Gravity @ 80°C | 1.18 | @ 100°C | 600 |
| Appearance @ 25°C | Light yellow waxy solid | Flash Point | 500°F (260°C) |

Product Description:

Xthane IT-22 is an MDI terminated polyester prepolymer for use in high performance cast elastomer applications. Products such as solid polyurethane tires for forklift trucks, cart wheels, and rollers are just a few examples of successful product applications with IT-22. Suggested extenders include the EXT 1000 series. 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-22 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-22 |
|--|-----------|-------|
| Hardness | Shore A | 86 |
| Resilience | % Rebound | 32 |
| Split Tear Strength | PLI | 357 |
| Die C Tear Strength | PLI | 520 |
| Tensile Strength | PSI | 7000 |
| Ultimate Elongation | % | 596 |
| 100% Modulus | PSI | 725 |
| 200% Modulus | PSI | 1070 |
| 300% Modulus | PSI | 1761 |
| Compression Set | % | 30 |
| Compression Deflection | 15% | 459 |
| Taber Abrasion | Mg Loss | 14 |

| Processing Characteristics using EXT-1006 | | IT-22 |
|---|---------|---------------------|
| NCO Range | | 6.5 – 6.7% |
| NCO / OH Ratio | | 1.03 |
| Prepolymer Temperature | | 90 – 100°C |
| Extender Temperature | | 25 – 70°C |
| Mold temperature | | 90 - 120°C |
| Pot Life | Minutes | 4 – 6 |
| Demold Time | Minutes | 45 |
| Other NCO's Available | | 6.9, 7.7, 11, 12.5% |

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.

PO Box 247 • 106 South Main Street • Malcom, Iowa 50157
 641-528-3000 • Toll Free: 888-489-2462 • Fax: 641-528-5403 • www.itwcinc.com