

Polyurethane Specialty Products Group

VERSATHANE® A-8

TDI-Polyester Prepolymer

Prepolymer Properties

| | | Specifications | Typical |
|------------------|----------|-----------------------|-------------------|
| NCO (%) | | 2.9 - 3.3 | 3.1 |
| Viscosity (cPs) | - 70 °C | ≤ 3,950 | 2,700 - 3,950 |
| | - 100 °C | - | ~ 900 |
| Specific Gravity | - 100 °C | - | 1.14 |
| Appearance | | - | White, Waxy Solid |
| Residual TDI (%) | | < 0.7 | < 0.5 |

Processing Conditions

| | |
|-----------------------------|-----------|
| Stoichiometry (%) | 95 |
| Versathane Temperature (°C) | 100 |
| MBOCA Temperature (°C) | 110 - 115 |
| Mold Temperature (°C) | 100 |
| Pot Life (Min.) – 100 °C | 10 - 12 |
| Gel Time (Min.) | 12 - 16 |
| Demold Time (Min.) | 60 |
| Post Cure (Hrs./Temp. °C) | 16/100 |

Typical Elastomer Properties (MBOCA Cured)

| | 85 | 90 | 95 | 100 |
|-----------------------------------|--------------|--------------|--------------|--------------|
| Stoichiometry (%) | 85 | 90 | 95 | 100 |
| MBOCA Level (PPH) | 8.4 | 8.9 | 9.4 | 9.9 |
| Hardness (A) | 80 | 80 | 80 | 80 |
| Modulus psi (MPa) | | | | |
| 100% Elongation | 500 (3.4) | 550 (3.8) | 550 (3.8) | 560 (3.9) |
| 300% Elongation | 950 (6.6) | 1,040 (7.2) | 1,050 (7.2) | 1,060 (7.3) |
| Tensile Strength psi (MPa) | 5,600 (38.6) | 5,800 (40.0) | 6,000 (41.4) | 6,100 (42.1) |
| Elongation (%) | 600 | 625 | 625 | 635 |
| Tear Resistance PLI (N/mm) | | | | |
| Die C | 335 (59) | 370 (65) | 380 (67) | 390 (68) |
| Split | 190 (33) | 225 (39) | 230 (40) | 235 (41) |
| Compression Set (%), Method B: | | | | |
| 25 % deflection, 22 hrs. at 70 °C | 27 | 28 | 32 | 46 |
| Rebound (%) | 28 | 31 | 32 | 32 |
| Compression Modulus psi (MPa) | | | | |
| 10% | 210 (1.4) | 220 (1.5) | 235 (1.6) | 230 (1.6) |
| 25% | 580 (4.0) | 600 (4.1) | 600 (4.1) | 610 (4.2) |
| Specific Gravity | 1.26 | 1.26 | 1.26 | 1.26 |
| NBS Abrasion Index (%) | - | 148 | - | - |
| Taber Abrasion, mg. loss | - | 47 | - | - |



To Order or Obtain More Information

If you would like to place an order or receive additional information, please write or call Air Products at the following location.

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