

Vibrathane® 6012

Polyurethane (Polyester, MDI)

Chemtura

Message:

VIBRATHANE 6012 is a polyester-based MDI-terminated prepolymer which yields 87A to 53D hardness urethanes when extended with 1,4-butanediol or hydroquinone bis (betahydroxyethyl) ether (HQEE) curatives.

Urethanes from VIBRATHANE 6012 have these features:

- FDA approved for use with both wet and dry foods
- Outstanding abrasion resistance
- High tensile and tear strength
- Excellent load-bearing capability.
- No methylene bis (ortho-chloroaniline) (MBCA) required
- Lower isocyanate exposure
- Superior urethane hydrolytic stability

| General Information | | | |
|-------------------------------|--------------------------------------|-------|-------------|
| Features | Food Contact Acceptable | | |
| | Good Abrasion Resistance | | |
| | Good Tear Strength | | |
| | High Tensile Strength | | |
| | Hydrolytically Stable | | |
| Agency Ratings | FDA Food Contact, Unspecified Rating | | |
| Forms | Liquid | | |
| Physical | Nominal Value | Unit | Test Method |
| Specific Gravity | 1.20 | g/cm³ | ASTM D792 |
| Hardness | Nominal Value | Unit | Test Method |
| Durometer Hardness (Shore A) | 94 | | ASTM D2240 |
| Elastomers | Nominal Value | Unit | Test Method |
| Tensile Stress (100% Strain) | 10.3 | MPa | ASTM D412 |
| Tensile Strength | 53.8 | MPa | ASTM D412 |
| Tensile Elongation (Break) | 430 | % | ASTM D412 |
| Tear Strength | | | |
| -- ¹ | 133 | kN/m | ASTM D624 |
| Split | 25 | kN/m | ASTM D470 |
| Compression Set (70°C, 22 hr) | 52 | % | ASTM D395B |
| Bayshore Resilience | 24 | % | ASTM D2632 |
| Thermal | Nominal Value | Unit | Test Method |
| Brittleness Temperature | -58.0 | °C | ASTM D746 |
| Thermoset | Nominal Value | Unit | |
| Post Cure Time (110°C) | 4.0 | hr | |
| Uncured Properties | Nominal Value | Unit | |
| Curing Time (110°C) | 1.0 | hr | |

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