

SANTOPRENE® 121-75M100

A soft, black, UV resistant thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. This material combines good physical properties and chemical resistance for use in difficult injection molding applications. This grade of Santoprene® TPV is shear-dependent and can be processed on conventional thermoplastics equipment for injection molding. It is polyolefin based and recyclable within the manufacturing stream.

Key Features

- Used in glass encapsulation applications
- Designed for fast, easy injection molding, especially for complex part geometries
- Used in sealing applications
- Recommended for applications requiring improved part surface appearance
- UL listed: file #QMFZ2.E80017, Plastics - Component; file #QMFZ8.E80017, Plastics Certified For Canada - Component

Typical mechanical properties

| | | |
|---------------------------------------|-----------|------------------------|
| Stress at 100% elongation | 3.79 MPa | ISO 527-1/-2 or ISO 37 |
| Stress at break | 6.59 MPa | ISO 527-1/-2 or ISO 37 |
| Elongation at break | 441 % | ISO 527-1/-2 or ISO 37 |
| Shear Modulus | 12.9 MPa | ISO 6721 |
| Brittleness Temperature | -60 °C | ASTM D 746 |
| Low temperature brittleness | -60 °C | ISO 812 |
| Shore A hardness, 15s | 80 | ISO 48-4 / ISO 868 |
| Shore A hardness change, after ageing | 3 | ISO 48-4 / ISO 868 |
| Compression set at 23°C | 28 % | ISO 815 |
| Compression set at 70°C, 24h | 42 % | ISO 815 |
| Compression Set, 125°C, 70h | 55 % | ISO 815 |
| Tear strength, normal | 25.5 kN/m | ISO 34-1 |

Flammability

| | | |
|-------------------------------|----------|-------|
| Burning Behav. at thickness h | HB class | UL 94 |
| Thickness tested | 1.1 mm | UL 94 |
| UL recognition | yes | UL 94 |

Other properties

| | | |
|---------|-----------|----------|
| Density | 920 kg/m³ | ISO 1183 |
|---------|-----------|----------|

Injection

| | | |
|---------------------------------|------------|----------|
| Drying Temperature | 82 °C | |
| Drying Time, Dehumidified Dryer | 3 h | |
| Processing Moisture Content | 0.08 % | |
| Max. regrind level | 20 % | |
| Melt Temperature Optimum | 215 °C | Internal |
| Max. mould temperature | 10 - 52 °C | |

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|-----------------|-------------------|
| Vent depth | 25 µm |
| Back pressure | 0.345 - 0.689 MPa |
| Injection speed | fast |

Processing Texts

Processing Notes

Desiccant drying for 3 hours at 80°C (180°F) is recommended. Santoprene® TPV has a wide temperature processing window from 175 to 230°C (350 to 450°F) and is incompatible with acetal and PVC.

Other Approvals

Other Approvals

| OEM | Specification | Additional Information |
|-------------------------------|--------------------|--|
| Stellantis - Chrysler | MS-AR-100 CMV | |
| GM | GMW15812, Type 7M | |
| Mercedes-Benz Group (Daimler) | DBL 5562 | |
| Stellantis - FCA Group | 55248/02 | EMP-80 |
| Geely | Q/JLY J7110166B | |
| Hyundai | MS220-05, Type L | |
| Li Auto | Q/LiA5310057 | 2021 (V2) |
| MAN | M3236 A7 | |
| SAIC Motor | SMTC 5 320 024 | |
| VW Group | TL 526 22 | MD06 |
| VW Group | VW50123 | |
| VW Group | VW50123 | LD3002 BLK, SKODA_Octavia SK38_Brano_Fuel tank sealing bellow_STP 121-75M100 |
| Stellantis - PSA Group | PMP 01378_15_01959 | |

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