



Monprene® RG-17270 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

The Monprene RG-17200 series is a group of high performance thermoplastic elastomers specifically designed with medium density for regulated applications including food contact, toys, and children's products. Monprene RG-17270 is a medium density, medium hardness grade that complies with various European regulations and directives for food contact and toy safety and is suitable for injection molding. Please contact Teknor Apex for a regulatory compliance letter.

General

| | | | |
|-------------------|---|---|--|
| Material Status | • Commercial: Active | | |
| Availability | • Africa & Middle East • Asia Pacific | • Europe • Latin America | • North America |
| Features | • Filled • Food Contact Acceptable • Good Adhesion • Good Colorability | • Good Processability • High Elasticity • Lubricated • Medium Density | • Medium Flow • Medium Hardness • Slip |
| Uses | • Consumer Applications • Cosmetic Packaging • Food Containers • Food Packaging • Food Service Applications | • Gaskets • Handles • Kitchenware • Lids • Non-specific Food Applications | • Rubber Replacement • Toothbrush Handles • Toys |
| Agency Ratings | • EU Food Contact | • FDA Food Contact | |
| RoHS Compliance | • RoHS Compliant | | |
| Appearance | • Colors Available | • Natural Color | • Opaque |
| Forms | • Pellets | | |
| Processing Method | • Injection Molding | | |

ASTM & ISO Properties ¹

| Physical | Nominal Value | Unit | Test Method |
|--|---------------|-------------------|-------------|
| Density | 1.05 | g/cm ³ | ISO 1183 |
| Melt Mass-Flow Rate (MFR) (190°C/2.16 kg) | 12 | g/10 min | ASTM D1238 |
| Elastomers | Nominal Value | Unit | Test Method |
| Tensile Stress (100% Strain) | 334 | psi | ISO 37 |
| Tensile Stress (300% Strain) | 348 | psi | ISO 37 |
| Tensile Strength (Break) | 1200 | psi | ISO 37 |
| Tensile Elongation (Break) | 700 | % | ISO 37 |
| Compression Set ² | | | ISO 815 |
| 73°F, 22 hr | 34 | % | |
| 158°F, 22 hr | 55 | % | |
| Hardness | Nominal Value | Unit | Test Method |
| Durometer Hardness | | | |
| Shore A, 1 sec | 72 | | ASTM D2240 |
| Shore A, 5 sec | 70 | | ISO 868 |
| Fill Analysis | Nominal Value | Unit | Test Method |
| Apparent Viscosity (392°F, 206 sec ⁻¹) | 110 | Pa·s | ISO 11443 |

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Processing Information

| Injection | Nominal Value | Unit |
|------------------------|----------------------|-------------|
| Rear Temperature | 248 to 320 | °F |
| Middle Temperature | 320 to 446 | °F |
| Front Temperature | 356 to 446 | °F |
| Nozzle Temperature | 356 to 446 | °F |
| Processing (Melt) Temp | 356 to 446 | °F |
| Mold Temperature | 59 to 122 | °F |
| Injection Rate | Fast | |
| Back Pressure | 72.5 to 218 | psi |
| Screw Speed | 50 to 100 | rpm |
| Cushion | 0.118 to 0.787 | in |

Injection Notes

Drying is not necessary. However, if moisture is a problem, dry the pellets for 2 to 4 hours at 150°F (65°C).

Notes

¹ Typical properties: these are not to be construed as specifications.

² Method B
