

Monprene® SP-12251

Thermoplastic Elastomer

Teknor Apex Company

Message:

Monprene® SP-12251 is a thermoplastic elastomer (TPE) material. This product is available in North America, Africa and the Middle East, Latin America, Europe or Asia Pacific. The processing method is extrusion or injection molding.

Typical application areas include:

- Handle
- safety equipment
- packing
- kitchen utensils
- engineering/industrial accessories

| General Information | | | |
|--|----------------------------------|-------------------|-------------|
| Uses | Safety equipment | | |
| | Handle | | |
| | Packaging | | |
| | Kitchen utensils | | |
| | Washer | | |
| | Pipe fittings | | |
| | Sporting goods | | |
| | Shell | | |
| | Stationery | | |
| | Consumer goods application field | | |
| | Toothbrush handle | | |
| | Medical/nursing supplies | | |
| Forms | Particle | | |
| Processing Method | Extrusion | | |
| | Injection molding | | |
| Physical | Nominal Value | Unit | Test Method |
| Specific Gravity | 0.870 | g/cm ³ | ASTM D792 |
| Melt Mass-Flow Rate (MFR) (200°C/5.0 kg) | 2.5 | g/10 min | ASTM D1238 |
| Hardness | Nominal Value | Unit | Test Method |
| Durometer Hardness (Shore A) | 53 | | ASTM D2240 |
| Elastomers | Nominal Value | Unit | Test Method |
| Tensile Stress | | | ASTM D412 |
| 100% strain | 2.00 | MPa | ASTM D412 |
| 300% strain | 3.00 | MPa | ASTM D412 |
| Tensile Strength (Break) | 5.00 | MPa | ASTM D412 |
| Tensile Elongation (Break) | 600 | % | ASTM D412 |

| Injection | Nominal Value | Unit |
|------------------------|---------------|------|
| Rear Temperature | 182 - 232 | °C |
| Middle Temperature | 188 - 238 | °C |
| Front Temperature | 193 - 243 | °C |
| Nozzle Temperature | 199 - 249 | °C |
| Processing (Melt) Temp | 199 - 249 | °C |
| Mold Temperature | 35.0 - 48.9 | °C |
| Injection Pressure | 1.38 - 5.52 | MPa |
| Injection Rate | Fast | |
| Back Pressure | 0.172 - 0.689 | MPa |
| Screw Speed | 50 - 100 | rpm |
| Cushion | 3.81 - 25.4 | mm |

Injection instructions

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

| Extrusion | Nominal Value | Unit |
|-----------------------|---------------|------|
| Cylinder Zone 1 Temp. | 182 - 232 | °C |
| Cylinder Zone 2 Temp. | 188 - 238 | °C |
| Cylinder Zone 3 Temp. | 193 - 243 | °C |
| Cylinder Zone 5 Temp. | 199 - 249 | °C |
| Die Temperature | 199 - 249 | °C |

Extrusion instructions

Screw Speed: 30 to 100 rpm

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Recommended distributors for this material

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