Medalist® MD-50153 NAT X (PRELIMINARY DATA)

Thermoplastic Elastomer

Teknor Apex Company

Message:

Medalist™MD-50153 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:

medical/health care

General Information

safety equipment

| General information | | | |
|---------------------------------------|--------------------------|----------|-------------|
| Uses | Safety equipment | | |
| | Drug | | |
| | Medical/nursing supplies | | |
| | | | |
| Appearance | Clear/transparent | | |
| Forms | Particle | | |
| Processing Method | Extrusion | | |
| | Injection molding | | |
| | | | |
| Physical | Nominal Value | Unit | Test Method |
| Specific Gravity | 0.888 | g/cm³ | ASTM D792 |
| Melt Mass-Flow Rate (MFR) (230°C/2.16 | | | |
| kg) | 20 | g/10 min | ASTM D1238 |
| Hardness | Nominal Value | Unit | Test Method |
| Durometer Hardness | | | ASTM D2240 |
| Shaw A, 1 sec | 62 | | ASTM D2240 |
| Shaw A, 5 seconds | 55 | | ASTM D2240 |
| Shaw A, 15 seconds | 53 | | ASTM D2240 |
| Elastomers | Nominal Value | Unit | Test Method |
| Tensile Strength - Flow (Break) | 9.24 | MPa | ASTM D412 |
| Tensile Elongation - Flow (Break) | 890 | % | ASTM D412 |
| Tear Strength | 31.0 | kN/m | ASTM D624 |
| Compression Set (23°C, 22 hr) | 9.1 | % | ASTM D395 |
| Injection | Nominal Value | Unit | |
| Rear Temperature | 127 - 149 | °C | |
| Middle Temperature | 138 - 160 | °C | |
| Front Temperature | 149 - 171 | °C | |
| Nozzle Temperature | 171 - 193 | °C | |

| Processing (Melt) Temp | 171 - 193 | °C |
|------------------------|---------------|-----|
| Mold Temperature | 21.1 - 37.8 | °C |
| Injection Pressure | 1.38 - 5.52 | MPa |
| 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. | 138 - 149 | °C |
| Cylinder Zone 2 Temp. | 149 - 160 | °C |
| Cylinder Zone 3 Temp. | 160 - 182 | °C |
| Cylinder Zone 5 Temp. | 171 - 193 | °C |
| Die Temperature | 182 - 204 | °C |
| Extrusion instructions | | |

Screw Speed: 30 to 100 rpm

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