# Medalist® MD-12169 AP CLR XRD1 (PRELIMINARY DATA)

## Teknor Apex Company - Thermoplastic Elastomer

Wednesday, April 1, 2026

## General Information

**Product Description**

The Medalist MD-12100 series are high performance thermoplastic elastomers designed for medical and healthcare applications requiring high elasticity and excellent moldability. Medalist MD-12169 is a medium hardness, low density, transparent grade, available in NAT and colors, which can be sterilized and exhibits excellent adhesion to polypropylene.

| General | | | |
|---|---|---|---|
| Material Status | • Preliminary Data | | |
| Availability | • Africa & Middle East<br>• Asia Pacific | • Europe<br>• Latin America | • North America |
| Features | • Autoclave Sterilizable<br>• Chemical Resistant<br>• Ethylene Oxide Sterilizable<br>• Good Adhesion<br>• Good Moldability<br>• Good Sterilizability | • Good Toughness<br>• Halogen Free<br>• Low Density<br>• Low Specific Gravity<br>• Lubricated<br>• Medium Flow | • Medium Hardness<br>• Radiation Sterilizable<br>• Resilient<br>• Slip<br>• Without Fillers |
| Uses | • Bushings<br>• Closures<br>• Disposable Hospital Goods<br>• Flexible Grips | • Grommets<br>• Knobs<br>• Medical/Healthcare Applications<br>• Pharmaceuticals | • Plugs<br>• Rubber Replacement |
| Agency Ratings | • ISO 10993-5 | • ISO 13485 | |
| RoHS Compliance | • RoHS Compliant | | |
| Appearance | • Clear/Transparent | • Colors Available | • Natural Color |
| Forms | • Pellets | | |
| Processing Method | • Injection Molding | • Multi Injection Molding | |

## Properties [1]

| Physical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Density / Specific Gravity | 0.882 | | ASTM D792 |
| Melt Mass-Flow Rate (MFR) (190°C/2.16 kg) | 30 | g/10 min | ASTM D1238 |
| **Elastomers** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Strength [2] (Break) | 725 | psi | ASTM D412 |
| Tensile Elongation (Break) | 500 | % | ASTM D412 |
| **Hardness** | **Nominal Value** | **Unit** | **Test Method** |
| Durometer Hardness | | | ASTM D2240 |
| Shore A, 1 sec | 71 | | |
| Shore A, 5 sec | 69 | | |

**Legal Statement**

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## Processing Information

| Injection | Nominal Value | Unit |
|---|---|---|
| Rear Temperature | 320 to 350 | °F |

Revision Date: 10/29/2024

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| Injection | Nominal Value | Unit |
|---|---|---|
| Middle Temperature | 360 to 400 | °F |
| Front Temperature | 380 to 420 | °F |
| Nozzle Temperature | 360 to 440 | °F |
| Processing (Melt) Temp | 360 to 440 | °F |
| Mold Temperature | 80 to 120 | °F |
| Injection Rate | Moderate-Fast | |
| Back Pressure | 25.0 to 100 | psi |
| Screw Speed | 50 to 100 | rpm |
| Cushion | 0.150 to 0.500 | 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).

For applications where adhesion or overmolding to polypropylene (PP) is required, a higher processing temperature (up to 480 °F) is recommended.

### Notes

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

[2] Die C, 20 in/min


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