



# Medalist® MD-115

Teknor Apex Company - Thermoplastic Elastomer

## General Information

### Product Description

This compound is designed for medical and healthcare applications including tubing.

### General

|                   |                                                     |                             |                 |
|-------------------|-----------------------------------------------------|-----------------------------|-----------------|
| Material Status   | • Commercial: Active                                |                             |                 |
| Availability      | • Africa & Middle East<br>• Asia Pacific            | • Europe<br>• Latin America | • North America |
| Uses              | • Medical/Healthcare Applications • Pharmaceuticals |                             |                 |
| Agency Ratings    | • ISO 10993 Part 5                                  |                             |                 |
| RoHS Compliance   | • RoHS Compliant                                    |                             |                 |
| Appearance        | • Translucent                                       |                             |                 |
| Forms             | • Pellets                                           |                             |                 |
| Processing Method | • Extrusion                                         | • Injection Molding         |                 |

## ASTM & ISO Properties <sup>1</sup>

| Physical                                 | Nominal Value | Unit     | Test Method |
|------------------------------------------|---------------|----------|-------------|
| Specific Gravity                         | 0.880         |          | ASTM D792   |
| Melt Mass-Flow Rate (MFR) (200°C/5.0 kg) | 1.0           | g/10 min | ASTM D1238  |
| Molding Shrinkage - Flow                 | 0.039         | in/in    | ASTM D955   |
| Molding Shrinkage - Across Flow          | 0.034         | in/in    | ASTM D955   |
| Elastomers                               | Nominal Value | Unit     | Test Method |
| Tensile Stress (100% Strain)             | 125           | psi      | ASTM D412   |
| Tensile Stress (200% Strain)             | 220           | psi      | ASTM D412   |
| Tensile Stress (300% Strain)             | 320           | psi      | ASTM D412   |
| Tensile Strength (Break)                 | 1080          | psi      | ASTM D412   |
| Tensile Elongation (Break)               | 650           | %        | ASTM D412   |
| Tear Strength                            | 120           | lbf/in   | ASTM D624   |
| Compression Set (73°F, 22 hr)            | 13            | %        | ASTM D395   |
| Hardness                                 | Nominal Value | Unit     | Test Method |
| Durometer Hardness (Shore A)             | 37            |          | ASTM D2240  |

## Processing Information

| Injection              | Nominal Value | Unit |
|------------------------|---------------|------|
| Rear Temperature       | 280 to 320    | °F   |
| Middle Temperature     | 320 to 360    | °F   |
| Front Temperature      | 340 to 380    | °F   |
| Nozzle Temperature     | 380 to 420    | °F   |
| Processing (Melt) Temp | 380 to 420    | °F   |
| Mold Temperature       | 70 to 100     | °F   |
| Injection Pressure     | 200 to 800    | psi  |
| Back Pressure          | 25.0 to 100   | psi  |
| Screw Speed            | 50 to 100     | rpm  |
| Cushion                | 0.150 to 1.00 | 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).

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| Extrusion                  | Nominal Value | Unit |
|----------------------------|---------------|------|
| Cylinder Zone 1 Temp.      | 280 to 300    | °F   |
| Cylinder Zone 2 Temp.      | 300 to 320    | °F   |
| Cylinder Zone 3 Temp.      | 320 to 360    | °F   |
| Cylinder Zone 5 Temp.      | 340 to 380    | °F   |
| Die Temperature            | 360 to 400    | °F   |
| Extrusion Notes            |               |      |
| Screw Speed: 30 to 100 rpm |               |      |

Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.