



# Medalist® MD-36342

Teknor Apex Company - Thermoplastic Elastomer

## General Information

### Product Description

Medalist MD-36342 is a high performance thermoplastic elastomer specifically designed for overmolding and multi-shot molding applications in the healthcare/medical segment. Medalist MD-36342 is a low hardness, low density, RoHS compliant sterilizable grade that bonds to COPE, PBT, ABS, PC/ABS, and PC.

### General

|                   |                                                                                                                              |                                                                                                                                         |                                                                       |
|-------------------|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| Material Status   | • Commercial: Active                                                                                                         |                                                                                                                                         |                                                                       |
| Availability      | • Africa & Middle East<br>• Asia Pacific                                                                                     | • Europe<br>• Latin America                                                                                                             | • North America                                                       |
| Features          | • Abrasion Resistant<br>• Bondability<br>• Chemical Resistant<br>• Conformable<br>• Crack Resistant<br>• E-beam Sterilizable | • Good Colorability<br>• Good Flexibility<br>• Good Flow<br>• Good Impact Resistance<br>• Good Moldability<br>• Good Scratch Resistance | • Good Toughness<br>• Halogen Free<br>• Low Density<br>• Low Hardness |
| Uses              | • Bonding<br>• Gaskets                                                                                                       | • Medical/Healthcare Applications<br>• Overmolding                                                                                      | • Soft Touch Applications                                             |
| Agency Ratings    | • ISO 10993-5                                                                                                                | • ISO 13485                                                                                                                             |                                                                       |
| RoHS Compliance   | • RoHS Compliant                                                                                                             |                                                                                                                                         |                                                                       |
| Appearance        | • Colors Available                                                                                                           | • Natural Color                                                                                                                         | • Opaque                                                              |
| Forms             | • Pellets                                                                                                                    |                                                                                                                                         |                                                                       |
| Processing Method | • Injection Molding                                                                                                          | • Multi Injection Molding                                                                                                               |                                                                       |

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

| Physical                                  | Nominal Value | Unit     | Test Method |
|-------------------------------------------|---------------|----------|-------------|
| Density / Specific Gravity                | 0.942         |          | ASTM D792   |
| Melt Mass-Flow Rate (MFR) (230°C/2.16 kg) | 2.5           | g/10 min | ASTM D1238  |
| Elastomers                                | Nominal Value | Unit     | Test Method |
| Tensile Stress <sup>2</sup> (50% Strain)  | 125           | psi      | ASTM D412   |
| Tensile Stress <sup>2</sup> (100% Strain) | 170           | psi      | ASTM D412   |
| Tensile Strength <sup>2</sup> (Break)     | 800           | psi      | ASTM D412   |
| Tensile Elongation <sup>2</sup> (Break)   | 660           | %        | ASTM D412   |
| Compression Set (73°F, 22 hr)             | 10            | %        | ASTM D395   |
| Hardness                                  | Nominal Value | Unit     | Test Method |
| Durometer Hardness                        |               |          | ASTM D2240  |
| Shore A, 1 sec, Injection Molded          | 42            |          |             |
| Shore A, 5 sec, Injection Molded          | 40            |          |             |
| Additional Information                    | Nominal Value | Unit     |             |
| Adhesion to ABS                           |               |          |             |
| Adhesion to PBT                           |               |          |             |
| Adhesion to PC                            |               |          |             |
| Adhesion to PC/ABS                        |               |          |             |
| Adhesion to COPE                          |               |          |             |

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### Processing Information

| Injection              | Nominal Value | Unit |
|------------------------|---------------|------|
| Drying Temperature     | 176           | °F   |
| Drying Time            | 3.0 to 4.0    | hr   |
| Rear Temperature       | 380 to 450    | °F   |
| Middle Temperature     | 392 to 482    | °F   |
| Front Temperature      | 428 to 500    | °F   |
| Nozzle Temperature     | 428 to 500    | °F   |
| Processing (Melt) Temp | 428 to 500    | °F   |
| Mold Temperature       | 90 to 130     | °F   |
| Injection Pressure     | 200 to 800    | psi  |
| Injection Rate         | Fast          |      |
| Back Pressure          | 25.0 to 100   | psi  |
| Screw Speed            | 50 to 100     | rpm  |
| Cushion                | 0.150 to 1.00 | in   |

### Injection Notes

Drying is strongly suggested to enhance bondability

### Notes

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

<sup>2</sup> Die C, 20 in/min