



# Monprene® MP-2150

Teknor Apex Company - Thermoplastic Elastomer

## General Information

### Product Description

Monprene MP-2150 is a general purpose thermoplastic elastomer designed for a variety of consumer product applications requiring a soft, rubber-like feel. Monprene MP-2150 is a low density, high hardness grade that exhibits excellent anti-vibration characteristics. This grade is suitable for both injection molding and extrusion.

### General

|                   |                                          |                                         |                                    |
|-------------------|------------------------------------------|-----------------------------------------|------------------------------------|
| Material Status   | • Commercial: Active                     |                                         |                                    |
| Availability      | • Africa & Middle East<br>• Asia Pacific | • Europe<br>• Latin America             | • North America                    |
| Features          | • Chemical Resistant<br>• High Hardness  | • Low Density<br>• Low Specific Gravity | • Medium Flow<br>• Without Fillers |
| Uses              | • Consumer Applications<br>• Film        | • Gaskets<br>• Handles                  | • Rubber Replacement<br>• Tubing   |
| RoHS Compliance   | • RoHS Compliant                         |                                         |                                    |
| Appearance        | • Clear/Transparent                      | • Colors Available                      | • Natural Color                    |
| Forms             | • Pellets                                |                                         |                                    |
| Processing Method | • Extrusion                              | • Injection Molding                     |                                    |

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

| Physical                                   | Nominal Value | Unit     | Test Method |
|--------------------------------------------|---------------|----------|-------------|
| Specific Gravity                           | 0.890         |          | ASTM D792   |
| Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)   | 8.0           | g/10 min | ASTM D1238  |
| Elastomers                                 | Nominal Value | Unit     | Test Method |
| Tensile Stress <sup>2</sup>                |               |          | ASTM D412   |
| Across Flow : 100% Strain                  | 789           | psi      |             |
| Flow : 100% Strain                         | 898           | psi      |             |
| Tensile Stress <sup>2</sup>                |               |          | ASTM D412   |
| Across Flow : 300% Strain                  | 1090          | psi      |             |
| Flow : 300% Strain                         | 1280          | psi      |             |
| Tensile Strength <sup>2</sup>              |               |          | ASTM D412   |
| Across Flow : Break                        | 2220          | psi      |             |
| Flow : Break                               | 2140          | psi      |             |
| Tensile Elongation <sup>2</sup>            |               |          | ASTM D412   |
| Across Flow : Break                        | 610           | %        |             |
| Flow : Break                               | 560           | %        |             |
| Compression Set <sup>3</sup> (73°F, 22 hr) | 25            | %        | ASTM D395B  |
| Hardness                                   | Nominal Value | Unit     | Test Method |
| Durometer Hardness                         |               |          | ASTM D2240  |
| Shore A, 1 sec, Injection Molded           | 85            |          |             |
| Shore A, 5 sec, Injection Molded           | 83            |          |             |

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### Processing Information

| Injection              | Nominal Value | Unit |
|------------------------|---------------|------|
| Rear Temperature       | 400 to 440    | °F   |
| Middle Temperature     | 400 to 440    | °F   |
| Front Temperature      | 400 to 440    | °F   |
| Nozzle Temperature     | 400 to 440    | °F   |
| Processing (Melt) Temp | 400 to 440    | °F   |
| Mold Temperature       | 60 to 90      | °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 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. | 380 to 420    | °F   |
| Cylinder Zone 2 Temp. | 380 to 420    | °F   |
| Cylinder Zone 3 Temp. | 380 to 420    | °F   |
| Cylinder Zone 4 Temp. | 380 to 420    | °F   |
| Cylinder Zone 5 Temp. | 380 to 420    | °F   |
| Die Temperature       | 380 to 420    | °F   |

### Extrusion Notes

Screw Speed: 30 to 100 rpm

### Notes

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

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

<sup>3</sup> Type 1