



# Monprene® CP-28160

Teknor Apex Company - Thermoplastic Elastomer

## General Information

### Product Description

Monprene CP-28160 is a general purpose thermoplastic elastomer designed for a variety of consumer product applications requiring a soft, rubber-like feel. Monprene CP-28160 exhibits good low temperature flexibility, and is suitable for injection molding and extrusion.

### General

|                   |                                                                  |                                                                  |                                                    |
|-------------------|------------------------------------------------------------------|------------------------------------------------------------------|----------------------------------------------------|
| Material Status   | • Commercial: Active                                             |                                                                  |                                                    |
| Availability      | • Africa & Middle East<br>• Asia Pacific                         | • Europe<br>• Latin America                                      | • North America                                    |
| Features          | • Contact Clarity<br>• Good Colorability<br>• Good Melt Strength | • Good Processability<br>• Low Density<br>• Low Specific Gravity | • Low Temperature Flexibility<br>• Medium Hardness |
| Uses              | • Consumer Applications<br>• Gaskets                             | • Handles<br>• Kitchenware                                       | • Packaging<br>• Sporting Goods                    |
| RoHS Compliance   | • RoHS Compliant                                                 |                                                                  |                                                    |
| Appearance        | • Colors Available                                               | • Natural Color                                                  | • Translucent                                      |
| Forms             | • Pellets                                                        |                                                                  |                                                    |
| Processing Method | • Extrusion                                                      | • Injection Molding                                              |                                                    |

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

| Physical                                 | Nominal Value | Unit     | Test Method |
|------------------------------------------|---------------|----------|-------------|
| Density / Specific Gravity               | 0.890         |          | ASTM D792   |
| Melt Mass-Flow Rate (MFR) (200°C/5.0 kg) | 5.0           | g/10 min | ASTM D1238  |
| Elastomers                               | Nominal Value | Unit     | Test Method |
| Tensile Stress (100% Strain)             | 320           | psi      | ASTM D412   |
| Tensile Stress (300% Strain)             | 470           | psi      | ASTM D412   |
| Tensile Strength (Break)                 | 1600          | psi      | ASTM D412   |
| Tensile Elongation (Break)               | 700           | %        | ASTM D412   |
| Compression Set                          |               |          | ASTM D395B  |
| 73°F, 22 hr                              | 20            | %        |             |
| 158°F, 22 hr                             | 35            | %        |             |
| Hardness                                 | Nominal Value | Unit     | Test Method |
| Durometer Hardness                       |               |          | ASTM D2240  |
| Shore A                                  | 62            |          |             |
| Shore A, 5 sec                           | 60            |          |             |

## Processing Information

| Injection          | Nominal Value | Unit |
|--------------------|---------------|------|
| Rear Temperature   | 360 to 450    | °F   |
| Middle Temperature | 370 to 460    | °F   |
| Front Temperature  | 380 to 470    | °F   |

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| Injection              | Nominal Value | Unit |
|------------------------|---------------|------|
| Nozzle Temperature     | 390 to 480    | °F   |
| Processing (Melt) Temp | 390 to 480    | °F   |
| Mold Temperature       | 95 to 120     | °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. | 360 to 450    | °F   |
| Cylinder Zone 2 Temp. | 370 to 460    | °F   |
| Cylinder Zone 3 Temp. | 380 to 470    | °F   |
| Cylinder Zone 4 Temp. | 390 to 480    | °F   |
| Cylinder Zone 5 Temp. | 390 to 480    | °F   |
| Die Temperature       | 390 to 480    | °F   |

### Extrusion Notes

Screw Speed: 30 to 100 rpm

### Notes

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