



# Monprene® CP-10170H (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

## General Information

### Product Description

Monprene CP-10170H, available in NAT and colors, is a high performance thermoplastic elastomer designed for a variety of consumer product applications requiring a soft, rubber-like feel. Monprene CP-10170H is a low density, medium hardness, halogen free grade that is suitable for injection molding.

### General

|                   |                                                                                                             |                                                                                               |                                                                  |
|-------------------|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| Material Status   | • Commercial: Active                                                                                        |                                                                                               |                                                                  |
| Availability      | • Africa & Middle East<br>• Asia Pacific                                                                    | • Europe<br>• Latin America                                                                   | • North America                                                  |
| Features          | • Chemical Resistant<br>• Good Colorability<br>• Good Flexibility<br>• Good Moldability<br>• Good Toughness | • Halogen Free<br>• High Flow<br>• Low Density<br>• Low Specific Gravity<br>• Medium Hardness | • Resilient<br>• Slip<br>• Without Fillers                       |
| Uses              | • Bladders<br>• Bushings<br>• Connectors<br>• Consumer Applications                                         | • Flexible Grips<br>• Grommets<br>• Handles<br>• Knobs                                        | • Plugs<br>• Rubber Replacement<br>• Safety Equipment<br>• Seals |
| RoHS Compliance   | • RoHS Compliant                                                                                            |                                                                                               |                                                                  |
| Appearance        | • Colors Available                                                                                          | • Natural Color                                                                               | • Translucent                                                    |
| Forms             | • Pellets                                                                                                   |                                                                                               |                                                                  |
| Processing Method | • Injection Molding                                                                                         |                                                                                               |                                                                  |

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

| Physical                                  | Nominal Value | Unit     | Test Method |
|-------------------------------------------|---------------|----------|-------------|
| Density / Specific Gravity                | 0.887         |          | ASTM D792   |
| Melt Mass-Flow Rate (MFR) (190°C/2.16 kg) | 17            | g/10 min | ASTM D1238  |
| Elastomers                                | Nominal Value | Unit     | Test Method |
| Tensile Stress <sup>2</sup> (50% Strain)  | 395           | psi      | ASTM D412   |
| Tensile Stress <sup>2</sup> (100% Strain) | 455           | psi      | ASTM D412   |
| Tensile Stress <sup>2</sup> (300% Strain) | 630           | psi      | ASTM D412   |
| Tensile Strength <sup>2</sup> (Break)     | 800           | psi      | ASTM D412   |
| Tensile Elongation <sup>2</sup> (Break)   | 500           | %        | ASTM D412   |
| Tear Strength - Flow <sup>2</sup>         | 170           | lbf/in   | ASTM D624   |
| Compression Set <sup>3</sup>              |               |          | ASTM D395   |
| 73°F, 22 hr                               | 25            | %        |             |
| 158°F, 22 hr                              | 80            | %        |             |
| Hardness                                  | Nominal Value | Unit     | Test Method |
| Durometer Hardness                        |               |          | ASTM D2240  |
| Shore A, 1 sec, Injection Molded          | 72            |          |             |
| Shore A, 5 sec, Injection Molded          | 70            |          |             |

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| Processing Information |                |      |
|------------------------|----------------|------|
| Injection              | Nominal Value  | Unit |
| Rear Temperature       | 320 to 350     | °F   |
| 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). |

### 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                                                               |