



# Monprene® CP-11160 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

## General Information

### Product Description

The Monprene CP-11100 High Density Series of thermoplastic elastomer compounds, available in NAT or colors, from 40 to 90 Shore A, are designed specifically for consumer product applications requiring a soft, rubber-like feel. Monprene CP-11160 is a medium hardness, high density, filled 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>• Filled<br>• General Purpose<br>• Good Adhesion                                     | • Good Colorability<br>• Good Flexibility<br>• Good Processability<br>• High Density                                      | • High Specific Gravity<br>• Medium Hardness                                         |
| Uses              | • Appliances<br>• Consumer Applications<br>• Flexible Grips<br>• Furniture<br>• Handles<br>• Household Goods | • Knobs<br>• Personal Care<br>• Rubber Replacement<br>• Safety Equipment<br>• Soft Touch Applications<br>• Sporting Goods | • Stationary Supplies<br>• Toys<br>• Water Sports Equipment<br>• Writing Instruments |
| RoHS Compliance   | • RoHS Compliant                                                                                             |                                                                                                                           |                                                                                      |
| Appearance        | • Colors Available                                                                                           | • Opaque                                                                                                                  |                                                                                      |
| Forms             | • Pellets                                                                                                    |                                                                                                                           |                                                                                      |
| Processing Method | • Injection Molding                                                                                          |                                                                                                                           |                                                                                      |

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

| Physical                                              | Nominal Value | Unit   | Test Method |
|-------------------------------------------------------|---------------|--------|-------------|
| Density / Specific Gravity                            | 1.15          |        | ISO 1183    |
| Elastomers                                            | Nominal Value | Unit   | Test Method |
| Tensile Stress <sup>2</sup>                           |               |        | ISO 37      |
| Across Flow : 100% Strain                             | 210           | psi    |             |
| Flow : 100% Strain                                    | 241           | psi    |             |
| Tensile Stress                                        |               |        | ISO 37      |
| Across Flow : Break                                   | 1480          | psi    |             |
| Flow : Break <sup>2</sup>                             | 1190          | psi    |             |
| Tensile Elongation <sup>2</sup>                       |               |        | ISO 37      |
| Across Flow : Break                                   | 890           | %      |             |
| Flow : Break                                          | 750           | %      |             |
| Tear Strength <sup>3</sup>                            |               |        | ISO 34-1    |
| Across Flow                                           | 143           | lbf/in |             |
| Flow                                                  | 154           | lbf/in |             |
| Compression Set <sup>4</sup> (158°F, 22 hr)           | 33            | %      | ISO 815     |
| Hardness                                              | Nominal Value | Unit   | Test Method |
| Shore Hardness                                        |               |        | ISO 868     |
| Shore A, 1 sec, Injection Molded                      | 62            |        |             |
| Shore A, 5 sec, Injection Molded                      | 60            |        |             |
| Additional Information                                | Nominal Value | Unit   | Test Method |
| Apparent Shear Viscosity - Capillary, @ 206/s (392°F) | 196           | Pa·s   | ASTM D3835  |

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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  |
| 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> 20 in/min

<sup>3</sup> Method Ba, Angle (Unnicked)

<sup>4</sup> Type A