



# Monprene® CP-19078

Teknor Apex Company - Thermoplastic Elastomer

## General Information

### Product Description

Monprene CP-19078 is a general purpose thermoplastic elastomer designed for a variety of consumer product applications requiring a soft, rubber-like feel. Monprene CP-19078 is a high hardness, low density, high flow grade suitable for injection molding.

### General

|                   |                                                       |                                                           |                                         |
|-------------------|-------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------|
| Material Status   | • Commercial: Active                                  |                                                           |                                         |
| Availability      | • Africa & Middle East<br>• Asia Pacific              | • Europe<br>• Latin America                               | • North America                         |
| Features          | • Filled<br>• Good Mold Release<br>• Good Moldability | • Good Processability<br>• High Hardness<br>• Low Density | • Low Specific Gravity<br>• Medium Flow |
| Uses              | • Consumer Applications<br>• Gaskets<br>• Handles     | • Kitchenware<br>• Sporting Goods<br>• Toothbrush Handles | • Writing Instruments                   |
| RoHS Compliance   | • RoHS Compliant                                      |                                                           |                                         |
| Appearance        | • Colors Available                                    | • Natural Color                                           | • Opaque                                |
| Forms             | • Pellets                                             |                                                           |                                         |
| Processing Method | • Injection Molding                                   |                                                           |                                         |

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

| Physical                                  | Nominal Value | Unit     | Test Method |
|-------------------------------------------|---------------|----------|-------------|
| Density / Specific Gravity                | 0.940         |          | ASTM D792   |
| Melt Mass-Flow Rate (MFR) (190°C/2.16 kg) | 6.0           | g/10 min | ASTM D1238  |
| Elastomers                                | Nominal Value | Unit     | Test Method |
| Tensile Stress                            |               |          | ASTM D412   |
| Across Flow : 100% Strain <sup>2</sup>    | 550           | psi      |             |
| Flow : 100% Strain <sup>3</sup>           | 940           | psi      |             |
| Tensile Stress                            |               |          | ASTM D412   |
| Across Flow : 300% Strain <sup>2</sup>    | 600           | psi      |             |
| Flow : 300% Strain <sup>3</sup>           | 1080          | psi      |             |
| Tensile Strength                          |               |          | ASTM D412   |
| Across Flow : Break <sup>2</sup>          | 1340          | psi      |             |
| Flow : Break <sup>3</sup>                 | 1110          | psi      |             |
| Tensile Elongation                        |               |          | ASTM D412   |
| Across Flow : Break <sup>2</sup>          | 2200          | %        |             |
| Flow : Break <sup>3</sup>                 | 390           | %        |             |
| Tear Strength <sup>3</sup>                |               |          | ASTM D624   |
| Across Flow                               | 287           | lbf/in   |             |
| Flow                                      | 300           | lbf/in   |             |
| Compression Set <sup>4</sup>              |               |          | ASTM D395B  |
| 73°F, 22 hr                               | 26            | %        |             |
| 158°F, 22 hr                              | 62            | %        |             |
| Hardness                                  | Nominal Value | Unit     | Test Method |
| Durometer Hardness                        |               |          | ASTM D2240  |
| Shore A, 1 sec, Injection Molded          | 80            |          |             |
| Shore A, 5 sec, Injection Molded          | 78            |          |             |

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### Processing Information

| Injection              | Nominal Value | Unit |
|------------------------|---------------|------|
| Rear Temperature       | 360 to 400    | °F   |
| Middle Temperature     | 360 to 400    | °F   |
| Front Temperature      | 360 to 400    | °F   |
| Nozzle Temperature     | 360 to 400    | °F   |
| Processing (Melt) Temp | 360 to 400    | °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).

### Notes

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

<sup>2</sup> 20 in/min

<sup>3</sup> Die C, 20 in/min

<sup>4</sup> Type 1