+135-3858-6433 (GuangDong)
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TEKNOR APEX

# Monprene® MP-1665-L3

## Teknor Apex Company - Thermoplastic Elastomer

### General Information

**Product Description**

Monprene MP-1665-L3 is a general purpose thermoplastic elastomer, available in NAT and colors, designed for a variety of consumer product applications requiring a soft, rubber-like feel. Monprene MP-1665-L3 is a low hardness, low density, clear grade that is suitable for extrusion and 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 Adhesion<br>• Good Colorability<br>• Good Flexibility | • Good Melt Strength<br>• Good Processability<br>• Halogen Free<br>• Low Density | • Low Hardness<br>• Slip |
| Uses | • Closures<br>• Consumer Applications<br>• Flexible Grips<br>• Gaskets | • General Purpose<br>• Handles<br>• Overmolding<br>• Rubber Replacement | • Sporting Goods<br>• Tubing<br>• Writing Instruments |
| RoHS Compliance | • RoHS Compliant | | |
| Appearance | • Blue<br>• Clear/Transparent | • Colors Available<br>• Natural Color | • Purple |
| Forms | • Pellets | | |
| Processing Method | • Extrusion | • Injection Molding | |

### ASTM & ISO Properties [1]

| Physical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Specific Gravity | 0.889 | | ASTM D792 |
| Melt Mass-Flow Rate (MFR) (200°C/5.0 kg) | 8.6 | g/10 min | ASTM D1238 |
| **Elastomers** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Stress [2] | | | ASTM D412 |
| Across Flow : 100% Strain | 131 | psi | |
| Flow : 100% Strain | 210 | psi | |
| Tensile Strength [2] | | | ASTM D412 |
| Across Flow : Break | 1070 | psi | |
| Flow : Break | 899 | psi | |
| Tensile Elongation [2] | | | ASTM D412 |
| Across Flow : Break | 750 | % | |
| Flow : Break | 710 | % | |
| Compression Set [3] | | | ASTM D395 |
| 73°F, 22 hr | 11 | % | |
| 158°F, 22 hr | 92 | % | |
| **Hardness** | **Nominal Value** | **Unit** | **Test Method** |
| Durometer Hardness | | | ASTM D2240 |
| Shore A, 1 sec | 42 | | |
| Shore A, 5 sec | 40 | | |

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| Processing Information | | |
|---|---|---|
| **Injection** | **Nominal Value** | **Unit** |
| Rear Temperature | 360 to 450 | °F |
| Middle Temperature | 370 to 460 | °F |
| Front Temperature | 380 to 470 | °F |
| Nozzle Temperature | 390 to 480 | °F |
| Processing (Melt) Temp | 390 to 480 | °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. | 360 to 450 | °F |
| Cylinder Zone 2 Temp. | 370 to 460 | °F |
| Cylinder Zone 3 Temp. | 380 to 470 | °F |
| Cylinder Zone 4 Temp. | 380 to 470 | °F |
| Cylinder Zone 5 Temp. | 390 to 480 | °F |
| Die Temperature | 390 to 480 | °F |
| **Extrusion Notes** | | |
| Screw Speed: 30 to 100 rpm | | |

### Notes

[1] Typical properties: these are not to be construed as specifications.

[2] Die C, 20 in/min

[3] Type 1