



# Monprene® RG-10130

Teknor Apex Company - Thermoplastic Elastomer

## General Information

### Product Description

The Monprene RG-10100 series is a group of high performance thermoplastic elastomers specifically designed for regulated applications including food contact, toys, and children's products. Monprene RG-10130 is a low density, low hardness grade that complies with various US FDA and European regulations and directives for food contact and toy safety and is suitable for injection molding. Please contact Teknor Apex for a regulatory compliance letter.

### General

|                   |  |  |   |
|-------------------|--|--|---|
| Material Status   | • Commercial: Active   |  |   |
| Availability      | • Africa & Middle East<br>• Europe   | • Latin America<br>• North America   |   |
| Features          | • BPA Free<br>• Food Contact Acceptable<br>• Good Adhesion<br>• Good Colorability<br>• Good Processability | • Low Density<br>• Low Flow<br>• Low Hardness<br>• Low Specific Gravity<br>• Lubricated    | • No Animal Derived Components<br>• Slip<br>• Without Fillers |
| Uses              | • Consumer Applications<br>• Cosmetic Packaging<br>• Food Containers<br>• Food Packaging                   | • Food Service Applications<br>• Kitchenware<br>• Lids<br>• Non-specific Food Applications | • Rubber Replacement<br>• Toys                                |
| Agency Ratings    | • EU Food Contact  | • FDA Food Contact   |   |
| 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                         | 0.890         |          | ISO 1183    |
| Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)           | 1.5           | g/10 min | ASTM D1238  |
| Elastomers   | Nominal Value | Unit     | Test Method |
| Tensile Stress - Across Flow (100% Strain)         | 69.6          | psi      | ISO 37      |
| Tensile Stress - Across Flow (Break)               | 609           | psi      | ISO 37      |
| Tensile Elongation - Across Flow (Break)           | 860           | %        | ISO 37      |
| Tear Strength <sup>2</sup>                         |               |          | ISO 34-1    |
| Across Flow  | 35.4          | lbf/in   |             |
| Flow   | 69.1          | lbf/in   |             |
| Compression Set <sup>3</sup> (158°F, 22 hr)        | 20            | %        | ISO 815     |
| Hardness   | Nominal Value | Unit     | Test Method |
| Shore Hardness (Shore A, 5 sec)                    | 29            |          | ISO 868     |
| Fill Analysis                                      | Nominal Value | Unit     | Test Method |
| Apparent Viscosity (392°F, 206 sec <sup>-1</sup> ) | 204           | Pa·s     | ASTM D3835  |

# Monprene® RG-10130

Teknor Apex Company - Thermoplastic Elastomer

| Processing Information |                |      |
|------------------------|----------------|------|
| Injection              | Nominal Value  | Unit |
| Rear Temperature       | 320 to 350     | °F   |
| Middle Temperature     | 360 to 400     | °F   |
| Front Temperature      | 360 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> Method Ba, Angle (Unnicked)

<sup>3</sup> Type A