# Monprene® RG-14023 XRD1 (PRELIMINARY DATA)

## Teknor Apex Company - Thermoplastic Elastomer

Thursday, April 2, 2026

### General Information

**Product Description**

Monprene RG-14023 XRD1 is a high-performance thermoplastic elastomer, available in NAT and colors, designed for regulated applications including food contact, toys, and children's products. Monprene RG-14023 XRD1 is a low hardness, low density grade with excellent adhesion to PP and complies with various US FDA regulations and EU directives for food contact. This grade is suitable for injection molding. Please contact Teknor Apex for a regulatory compliance letter.

**General**

| | | | |
|---|---|---|---|
| Material Status | • Preliminary Data | | |
| Availability | • Africa & Middle East<br>• Asia Pacific | • Europe<br>• Latin America | • North America |
| Features | • Abrasion Resistant<br>• Good Clarity<br>• Good Flow<br>• Good Mold Release<br>• Good Moldability | • Good Processability<br>• High Elongation<br>• High Flow<br>• Low Density<br>• Low Hardness | • Lubricated<br>• Soft<br>• Without Fillers |
| Uses | • Closures<br>• Consumer Applications | • Gaskets<br>• Handles | • Kitchenware<br>• Rubber Replacement |
| Agency Ratings | • EU Food Contact | • FDA Food Contact | |
| RoHS Compliance | • RoHS Compliant | | |
| Appearance | • Colors Available | • Natural Color | • Translucent |
| Forms | • Pellets | | |
| Processing Method | • Injection Molding | | |

### Properties [1]

| Physical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Density / Specific Gravity | 0.882 | | ASTM D792 |
| Melt Mass-Flow Rate (MFR) (150°C/2.16 kg) | 5.0 | g/10 min | ASTM D1238 |
| **Elastomers** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Stress (100% Strain) | 58.0 | psi | ASTM D412 |
| Tensile Stress (200% Strain) | 77.7 | psi | ASTM D412 |
| Tensile Stress (300% Strain) | 98.8 | psi | ASTM D412 |
| Tensile Strength (Break) | 924 | psi | ASTM D412 |
| Tensile Elongation (Break) | 840 | % | ASTM D412 |
| **Hardness** | **Nominal Value** | **Unit** | **Test Method** |
| Durometer Hardness | | | ASTM D2240 |
| Shore A, 1 sec, Injection Molded | 24 | | |
| Shore A, 5 sec, Injection Molded | 23 | | |
| **Fill Analysis** | **Nominal Value** | **Unit** | **Test Method** |
| Apparent Viscosity (302°F, 232 sec^-1) | 449 | Pa·s | ASTM D3835 |

**Legal Statement**

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### Processing Information

| Injection | Nominal Value | Unit |
|---|---|---|
| Rear Temperature | 320 to 400 | °F |
| Middle Temperature | 320 to 400 | °F |
| Front Temperature | 320 to 400 | °F |
| Nozzle Temperature | 320 to 400 | °F |
| Processing (Melt) Temp | 320 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

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


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