# Monprene® OM-16252 NAT XRD1 (PRELIMINARY DATA)

## Teknor Apex Company - Thermoplastic Elastomer

Thursday, April 2, 2026

### General Information

**Product Description**

Monprene OM-16252 NAT XRD1 is part of a series of adhesion-modified thermoplastic elastomers (available from 40 to 70 Shore A) designed for over-molding (insert and multi-shot) onto many engineering thermoplastics, including: PC, ABS, PC/ABS, CoPE, PBT, and more. These materials exhibit dry haptics and are well suited for grips and other soft-touch parts. Monprene OM-16252 NAT XRD1 is REACH-SVHC and RoHS compliant and offers several benefits including easy molding with a wide processing window.

**General**

| | | | |
|---|---|---|---|
| Material Status | • Preliminary Data | | |
| Availability | • Africa & Middle East<br>• Asia Pacific | • Europe<br>• Latin America | • North America |
| Features | • Bondability<br>• Chemical Resistant<br>• Conformable<br>• Crack Resistant<br>• Good Colorability | • Good Flexibility<br>• Good Flow<br>• Good Impact Resistance<br>• Good Moldability<br>• Good Scratch Resistance | • Good Toughness<br>• Halogen Free<br>• Low Compression Set<br>• Low Hardness<br>• Medium Density |
| Uses | • Bonding<br>• Consumer Applications<br>• Gaskets<br>• Industrial Applications | • Industrial Parts<br>• Knobs<br>• Lids<br>• Overmolding | • Pipe Seals<br>• Safety Equipment<br>• Soft Touch Applications |
| RoHS Compliance | • RoHS Compliant | | |
| Appearance | • Colors Available | • Natural Color | • Opaque |
| Forms | • Pellets | | |
| Processing Method | • Injection Molding | • Multi Injection Molding | |

### Properties [1]

| Physical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Density / Specific Gravity | 1.05 | | ASTM D792 |
| Melt Mass-Flow Rate (MFR) (200°C/5.0 kg) | 16 | g/10 min | ASTM D1238 |
| **Elastomers** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Stress [2] (100% Strain) | 270 | psi | ASTM D412 |
| Tensile Strength [2] (Break) | 508 | psi | ASTM D412 |
| Tensile Elongation [2] (Break) | 420 | % | ASTM D412 |
| Tear Strength [2] | 126 | lbf/in | ASTM D624 |
| Compression Set [3] (73°F, 22 hr) | 16 | % | ASTM D395 |
| **Hardness** | **Nominal Value** | **Unit** | **Test Method** |
| Durometer Hardness | | | ASTM D2240 |
| Shore A, 1 sec, Injection Molded | 55 | | |
| Shore A, 5 sec, Injection Molded | 53 | | |

**Legal Statement**

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### Processing Information

| Injection | Nominal Value | Unit |
|---|---|---|
| Drying Temperature | 176 | °F |
| Drying Time | 3.0 to 4.0 | hr |
| Rear Temperature | 356 to 428 | °F |
| Middle Temperature | 392 to 464 | °F |
| Front Temperature | 410 to 482 | °F |
| Nozzle Temperature | 410 to 482 | °F |
| Processing (Melt) Temp | 410 to 482 | °F |
| Mold Temperature | 90 to 130 | °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 strongly suggested to enhance bondability.

For any overmolding process it is recommended that the process temperatures for the TPE material be set at least 50°F (10°C)higher than the melt temperature of the substrate material.

### Notes

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

[2] Die C, 20 in/min

[3] Type 1


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