# Monprene® SP-16045 NAT XRD1 (PRELIMINARY DATA)

## Teknor Apex Company - Thermoplastic Elastomer

Friday, April 3, 2026

### General Information

**Product Description**

Monprene SP-16045 NAT XRD1 is a general purpose thermoplastic elastomer designed for a variety of consumer product applications requiring a soft, rubber-like feel.

| General | | | |
|---|---|---|---|
| Material Status | • Preliminary Data | | |
| Availability | • Africa & Middle East<br>• Asia Pacific | • Europe<br>• Latin America | • North America |
| Features | • High Flow | • Low Density | |
| Uses | • Consumer Applications | • Sporting Goods | |
| RoHS Compliance | • RoHS Compliant | | |
| Appearance | • Natural Color | • Opaque | |
| Forms | • Pellets | | |
| Processing Method | • Extrusion | • Injection Molding | |

### Properties [1]

| Physical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Density / Specific Gravity | 0.902 | | ASTM D792 |
| Melt Mass-Flow Rate (MFR) (190°C/21.6 kg) | 25 | g/10 min | ASTM D1238 |
| **Elastomers** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Strength (Break) | 725 | psi | ASTM D412 |
| Tensile Elongation (Break) | 500 | % | ASTM D412 |
| **Hardness** | **Nominal Value** | **Unit** | **Test Method** |
| Durometer Hardness (Shore A, Injection Molded) | 41 | | ASTM D2240 |

**Legal Statement**

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### Processing Information

| Injection | Nominal Value | Unit |
|---|---|---|
| Rear Temperature | 380 to 420 | °F |
| Middle Temperature | 380 to 420 | °F |
| Front Temperature | 380 to 420 | °F |
| Nozzle Temperature | 380 to 420 | °F |
| Processing (Melt) Temp | 380 to 420 | °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 |

Revision Date: 10/4/2023

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| 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 400 | °F |
| Cylinder Zone 2 Temp. | 360 to 400 | °F |
| Cylinder Zone 3 Temp. | 360 to 400 | °F |
| Cylinder Zone 4 Temp. | 360 to 400 | °F |
| Cylinder Zone 5 Temp. | 360 to 400 | °F |
| Die Temperature | 360 to 400 | °F |

| Extrusion Notes |
|---|
| Screw Speed: 30 to 100 rpm |

### Notes

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


**Teknor Apex Company**
**Corporate Headquarters**

*In U.S. for Vinyls, TPEs, Colorants,*

*Engineered Thermoplastics (Chem Polymer)*
505 Central Avenue
Pawtucket, Rhode Island 02861 U.S.

Phone: 401-725-8000
Fax: 401-725-8095
Toll Free (U.S. only) 800-556-3864

www.teknorapex.com
info@teknorapex.com

**Teknor Apex B.V.**

Brightlands Chemelot Campus Umonderbaan 22
6167 RD Geleen, Netherlands

Phone: +31 46 7020 950
Fax: +31 46 7020 990

www.teknorapex.com
tpe@teknorapex.com

**Teknor Apex (Suzhou) Advanced Polymer Compounds Co. Pte. Ltd.**

No. 78 Ping Sheng Road

Suzhou Industrial Park
Jiangsu, China 215126

Phone: (86) 512-6287-1550
Fax: (86) 512-6288-8371

www.teknorapex.com
infotaap@teknoapex.com

**Teknor Apex Asia Pacific PTE. LTD.**

41 Shipyard Road

Singapore 628134

Phone: (65) 6265-2544
Fax: (65) 6265-1821

www.teknorapex.com
infotaap@teknorapex.com


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