



# Monprene® RG-29240 XRD1 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

## General Information

### Product Description

Monprene RG-29240 XRD1 is a high performance thermoplastic elastomer designed for regulated applications including food contact, seals, and gaskets. Monprene RG-29240 XRD1 is a low hardness, low density, RoHS compliant 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 and extrusion. Please contact Teknor Apex for a regulatory compliance letter.

### General

Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Europe	• Latin America • North America	
Features	• BPA Free • Food Contact Acceptable • Good Adhesion • Good Colorability • Good Processability	• Low Density • Low Flow • Low Hardness • Low Specific Gravity • Lubricated	• No Animal Derived Components • Slip • Without Fillers
Uses	• Closures • Consumer Applications • Cosmetic Packaging • Food Containers	• Food Packaging • Food Service Applications • Handles • Kitchenware	• Lids • Non-specific Food Applications • Rubber Replacement • Toys
Agency Ratings	• EU Food Contact	• FDA Food Contact	
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Translucent	
Forms	• Pellets		
Processing Method	• Extrusion	• 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)	82.5	psi	ISO 37
Tensile Stress - Across Flow (Break)	725	psi	ISO 37
Tensile Elongation - Across Flow (Break)	860	%	ISO 37
Tear Strength <sup>2</sup>			ISO 34-1
Across Flow	47.4	lbf/in	
Flow	82.2	lbf/in	
Compression Set <sup>3</sup> (158°F, 22 hr)	23	%	ISO 815
Hardness	Nominal Value	Unit	Test Method
Shore Hardness (Shore A, 5 sec)	40		ISO 868
Fill Analysis	Nominal Value	Unit	Test Method
Apparent Viscosity (392°F, 206 sec <sup>-1</sup> )	214	Pa·s	ASTM D3835

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### Processing Information

Injection	Nominal Value	Unit
Rear Temperature	320 to 350	°F
Middle Temperature	360 to 400	°F
Front Temperature	380 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).

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	300 to 320	°F
Cylinder Zone 2 Temp.	320 to 400	°F
Cylinder Zone 3 Temp.	340 to 420	°F
Cylinder Zone 4 Temp.	360 to 440	°F
Cylinder Zone 5 Temp.	360 to 440	°F
Die Temperature	360 to 440	°F

#### Extrusion Notes

Screw Speed: 30 to 100 rpm

Drying is not necessary. However, if moisture is a problem, dry the pellets for 2 to 4 hours at 150F (65C).

#### 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