



# Monprene® RG-14023 XRD1 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

## 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 • Asia Pacific	• Europe • Latin America	• North America
Features	• Abrasion Resistant • Good Clarity • Good Flow • Good Mold Release • Good Moldability	• Good Processability • High Elongation • High Flow • Low Density • Low Hardness	• Lubricated • Soft • Without Fillers
Uses	• Closures • Consumer Applications	• Gaskets • Handles	• Kitchenware • 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		

## ASTM & ISO Properties <sup>1</sup>

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 <sup>-1</sup> )	449	Pa·s	ASTM D3835

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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

<sup>1</sup> Typical properties: these are not to be construed as specifications.