Monprene® RG-10165 NAT XRD6 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

Thursday, April 2, 2026

General Information

Product Description

The Monprene RG-10100 series is a group of high performance thermoplastic elastomers specifically designed for regulated applications including food contact, toys, and children's products. Monprene RG-10165 NAT XRD6 is a low density, medium hardness grade that complies with various US FDA and European regulations and directives for food contact and toy safety and is suitable for injection molding. 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 Specific Gravity	• Medium Hardness • No Animal Derived Components • 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	• Natural Color		
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.891		ISO 1183
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	2.7	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress			ISO 527
Across Flow : 50% Strain	2030	psi	
Flow : 50% Strain	319	psi	
Tensile Stress			ISO 527
Across Flow : 100% Strain	232	psi	
Flow : 100% Strain	377	psi	
Tensile Stress			ISO 527
Across Flow : 300% Strain	334	psi	
Flow : 300% Strain	522	psi	
Tensile Stress			ISO 527
Across Flow : Break	2200	psi	
Flow : Break	667	psi	
Tensile Elongation			ISO 527
Across Flow : Break	930	%	
Flow : Break	520	%	
Tear Strength [2]			ISO 34-1
Across Flow	110	lbf/in	
Flow	98.8	lbf/in	

Revision Date: 6/10/2024

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Elastomers	Nominal Value	Unit	Test Method
Compression Set			ISO 815
73°F, 70 hr	21	%	
158°F, 24 hr	40	%	
212°F, 24 hr	45	%	

Hardness	Nominal Value	Unit	Test Method
Shore Hardness (Shore A, 3 sec)	66		ISO 868

Legal Statement

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Processing Information

Injection	Nominal Value	Unit
Rear Temperature	320 to 356	°F
Middle Temperature	356 to 392	°F
Front Temperature	374 to 410	°F
Nozzle Temperature	374 to 446	°F
Processing (Melt) Temp	374 to 446	°F
Mold Temperature	68 to 104	°F
Injection Rate	Moderate-Fast	

Injection Notes

Drying is not necessary. However, if moisture is a problem, dry the pellets for 2 to 4 hours at 80 °C.

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	320 to 356	°F
Cylinder Zone 2 Temp.	320 to 356	°F
Cylinder Zone 3 Temp.	320 to 356	°F
Melt Temperature	356 to 428	°F
Die Temperature	356 to 428	°F

Extrusion Notes

Drying is not necessary. However, if moisture is a problem, dry the pellets for 2 to 4 hours at 80 °C.

Notes

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

[2] Method B, Angle

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