



Monprene® RG-19211 NAT XRD1 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene RG-19211 NAT XRD1 is specifically designed for regulated applications including food contact, toys, and children's products. Monprene RG-19211 NAT XRD1 is a low hardness, low density grade suitable for both injection molding and extrusion. 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	• Good Moldability • Good Processability • High Flow	• Low Density • Low Hardness • Low Specific Gravity	• Slip • Soft • Without Fillers
Uses	• Consumer Applications • Gaskets • Kitchenware	• Lids • Packaging • Seals	• Tubing
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.880		ASTM D792
Melt Mass-Flow Rate (MFR) (150°C/2.16 kg)	10	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ²			ASTM D412
Across Flow : 100% Strain	52.0	psi	
Flow : 100% Strain	53.0	psi	
Tensile Stress ²			ASTM D412
Across Flow : 300% Strain	124	psi	
Flow : 300% Strain	157	psi	
Tensile Strength ²			ASTM D412
Across Flow : Break	464	psi	
Flow : Break	352	psi	
Tensile Elongation ²			ASTM D412
Across Flow : Break	720	%	
Flow : Break	650	%	
Tear Strength ²			ASTM D624
Across Flow	78.0	lbf/in	
Flow	47.0	lbf/in	
Compression Set ³			ASTM D395B
73°F, 22 hr	25	%	
158°F, 22 hr	95	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	13		
Shore A, 5 sec, Injection Molded	11		

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Processing Information

Injection	Nominal Value	Unit
Rear Temperature	290 to 360	°F
Middle Temperature	300 to 370	°F
Front Temperature	310 to 380	°F
Nozzle Temperature	320 to 390	°F
Processing (Melt) Temp	320 to 390	°F
Mold Temperature	60 to 100	°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).

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	360 to 450	°F
Cylinder Zone 2 Temp.	370 to 460	°F
Cylinder Zone 3 Temp.	380 to 470	°F
Cylinder Zone 4 Temp.	385 to 475	°F
Cylinder Zone 5 Temp.	390 to 480	°F
Die Temperature	390 to 480	°F

Extrusion Notes

Screw Speed: 30 to 100 rpm

Notes

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

² Die C, 20 in/min

³ Type 1