



Monprene® RG-19221 NAT

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene RG-19221 is a high performance thermoplastic elastomer designed for regulated applications including food contact. Monprene RG-19221 is a low hardness, low density, high flow, unfilled grade with excellent adhesion to PP and complies with various US FDA regulations for food contact. This grade is suitable for injection molding. Please contact Teknor Apex for a regulatory compliance letter.

General

Material Status	• Commercial: Active		
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 • Handles • Kitchenware	• Packaging • Safety Equipment • Sporting Goods • Toothbrush Handles	• Tubing • Writing Instruments
Agency Ratings	• FDA Food Contact		
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Natural Color	• Translucent
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.890		ASTM D792
Melt Mass-Flow Rate (MFR) (175°C/2.16 kg)	60	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ²			ASTM D412
Across Flow : 100% Strain	74.0	psi	
Flow : 100% Strain	121	psi	
Tensile Stress ²			ASTM D412
Across Flow : 300% Strain	149	psi	
Flow : 300% Strain	205	psi	
Tensile Strength ²			ASTM D412
Across Flow : Break	470	psi	
Flow : Break	281	psi	
Tensile Elongation ²			ASTM D412
Across Flow : Break	750	%	
Flow : Break	570	%	
Tear Strength ²			ASTM D624
Across Flow	77.0	lbf/in	
Flow	56.0	lbf/in	
Compression Set ³			ASTM D395B
73°F, 22 hr	30	%	
158°F, 22 hr	95	%	

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Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	22		
Shore A, 5 sec, Injection Molded	21		

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	320 to 360	°F
Middle Temperature	320 to 360	°F
Front Temperature	320 to 360	°F
Nozzle Temperature	320 to 360	°F
Processing (Melt) Temp	320 to 360	°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

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

² Die C, 20 in/min

³ Type 2