



Monprene® PR-12431

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene PR-12431 is a high performance thermoplastic elastomer designed for a variety of consumer product applications requiring a soft, rubber-like feel. Monprene PR-12431 is a low hardness, low density grade suitable for injection molding.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Filled • Good Colorability • Good Moldability	• Good Processability • Low Density • Low Hardness	• Low Specific Gravity • Medium Flow • Slip
Uses	• Consumer Applications • Handles	• Rubber Replacement • Safety Equipment	
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Natural Color	• Opaque
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.930		ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	3.0	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ²			ASTM D412
Across Flow : 100% Strain	92.0	psi	
Flow : 100% Strain	227	psi	
Tensile Stress ²			ASTM D412
Across Flow : 300% Strain	180	psi	
Flow : 300% Strain	580	psi	
Tensile Strength ²			ASTM D412
Across Flow : Break	1480	psi	
Flow : Break	1030	psi	
Tensile Elongation ²			ASTM D412
Across Flow : Break	680	%	
Flow : Break	560	%	
Tear Strength ²			ASTM D624
Across Flow	157	lbf/in	
Flow	134	lbf/in	
Compression Set ³ (73°F, 22 hr)	19	%	ASTM D395B
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	34		
Shore A, 5 sec, Injection Molded	31		

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Processing Information

Injection	Nominal Value	Unit
Rear Temperature	360 to 400	°F
Middle Temperature	380 to 420	°F
Front Temperature	400 to 440	°F
Nozzle Temperature	400 to 440	°F
Processing (Melt) Temp	400 to 440	°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 1