



Monprene® CP-18123-03 NAT

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene CP-18123-03 NAT is a clear thermoplastic elastomer designed for a variety of consumer product applications requiring a soft, rubber-like feel. Monprene CP-18123-03 NAT is a low hardness, low density, RoHS compliant grade suitable for injection molding.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Good Adhesion • Good Colorability • Good Flexibility • Good Moldability • Good Processability	• Good Tear Strength • Good Toughness • Halogen Free • High Elongation • High Flow	• High Tensile Strength • Low Density • Low Hardness • Resilient
Uses	• Consumer Applications • Diaphragms • Flexible Grips • Gaskets	• General Purpose • Handles • Knobs • Rubber Replacement	• Soft Touch Applications • Sporting Goods
RoHS Compliance	• RoHS Compliant		
Appearance	• Clear/Transparent	• Colors Available	
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) (190°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	64.0	psi	
Flow : 100% Strain	74.0	psi	
Tensile Stress ²			ASTM D412
Across Flow : 300% Strain	120	psi	
Flow : 300% Strain	176	psi	
Tensile Strength ²			ASTM D412
Across Flow : Break	1020	psi	
Flow : Break	960	psi	
Tensile Elongation ²			ASTM D412
Across Flow : Break	920	%	
Flow : Break	920	%	
Tear Strength ²			ASTM D624
Across Flow	135	lbf/in	
Flow	124	lbf/in	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec	22		
Shore A, 5 sec	20		

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Processing Information		
Injection	Nominal Value	Unit
Rear Temperature	340 to 365	°F
Middle Temperature	360 to 390	°F
Front Temperature	390 to 420	°F
Nozzle Temperature	390 to 420	°F
Processing (Melt) Temp	390 to 420	°F
Mold Temperature	80 to 120	°F
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