Monprene® PC-12050 NAT (Preliminary Data)

Teknor Apex Company - Thermoplastic Elastomer

Thursday, April 2, 2026

General Information

Product Description

Monprene PC-12050 is a high performance thermoplastic elastomer, available in NAT and colors, designed for a variety of personal care consumer product applications requiring a soft, rubber-like feel. Monprene PC-12050 is a low hardness, low density, lubricated, clear, UV stable grade that is suitable for injection molding.

General			
Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Chemical Resistant • Good Adhesion • Good Colorability • Good Flexibility	• Good Moldability • Good Processability • High Elongation • Low Compression Set	• Low Density • Resilient
Uses	• Consumer Applications • Flexible Grips • General Purpose	• Grommets • Handles • Knobs	• Overmolding • Soft Touch Applications
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Natural Color	
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	0.890	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/5.0 kg)	1.5	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress			ISO 37
Across Flow : 100% Strain	145	psi	
Flow : 100% Strain	174	psi	
Tensile Stress			ISO 37
Across Flow : 300% Strain	247	psi	
Flow : 300% Strain	290	psi	
Tensile Strength			ISO 37
Across Flow : Break	1450	psi	
Flow : Break	1160	psi	
Tensile Elongation			ISO 37
Across Flow : Break	930	%	
Flow : Break	800	%	
Tear Strength			ISO 34-1
Across Flow	68.5	lbf/in	
Flow	62.8	lbf/in	
Compression Set			ISO 815
73°F, 70 hr	18	%	
158°F, 22 hr	37	%	
212°F, 22 hr	56	%	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Shore Hardness (Shore A, 3 sec)	50		ISO 868

Revision Date: 1/22/2021

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Processing Information

Injection	Nominal Value	Unit
Rear Temperature	248 to 320	°F
Middle Temperature	320 to 428	°F
Front Temperature	356 to 428	°F
Nozzle Temperature	356 to 428	°F
Processing (Melt) Temp	392 to 428	°F
Mold Temperature	86 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 150°F (65°C).

Notes

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

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