



Monprene® PC-12432

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene PC-12432 is a high performance thermoplastic elastomer, available in NAT and colors, designed for a variety of personal care consumer product applications, including toothbrush handles, requiring a soft, rubber-like feel. Monprene PC-12432 is a low hardness, low density, lubricated, high flow grade designed for injection molding.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Chemical Resistant • Good Adhesion • Good Colorability • Good Flexibility • Good Moldability	• Good Tear Strength • Good Toughness • Halogen Free • High Flow • Low Density	• Low Hardness • Low Specific Gravity • Lubricated • Resilient
Uses	• Closures • Consumer Applications • Flexible Grips • Gaskets	• Grommets • Handles • Knobs • Overmolding	• Plugs • Rubber Replacement • Soft Touch Applications • Toothbrush Handles
RoHS Compliance	• RoHS Compliant		
Appearance	• Clear/Transparent • Colors Available	• Light Beige • Natural Color	• Pink • Purple
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.880		ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	45	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress (300% Strain)	200	psi	ASTM D412
Tensile Strength (Break)	500	psi	ASTM D412
Tensile Elongation (Break)	850	%	ASTM D412
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A)	35		ASTM D2240

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	360 to 450	°F
Middle Temperature	370 to 460	°F
Front Temperature	380 to 470	°F
Nozzle Temperature	390 to 480	°F

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Injection	Nominal Value	Unit
Processing (Melt) Temp	390 to 480	°F
Mold Temperature	95 to 120	°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 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.