



Monprene® CP-10170 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

The Monprene CP-10100 Series of thermoplastic elastomer compounds, available in NAT or colors, from 40 to 90 Shore A, are designed specifically for consumer product applications requiring a soft, rubber-like feel. Monprene CP-10170 is a medium hardness, low density, unfilled grade that is suitable for injection molding.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Chemical Resistant • General Purpose • Good Adhesion	• Good Colorability • Good Flexibility • Good Processability	• Low Density • Low Specific Gravity • Medium Hardness
Uses	• Appliances • Consumer Applications • Flexible Grips • Furniture • Handles • Household Goods	• Knobs • Personal Care • Rubber Replacement • Safety Equipment • Soft Touch Applications • Sporting Goods	• Stationary Supplies • Toys • Water Sports Equipment • Writing Instruments
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Translucent	
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.890		ISO 1183
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	11	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress - Across Flow (100% Strain)	320	psi	ISO 37
Tensile Stress - Across Flow (Break)	1800	psi	ISO 37
Tensile Elongation - Across Flow (Break)	890	%	ISO 37
Tear Strength ²			ISO 34-1
Across Flow	166	lbf/in	
Flow	223	lbf/in	
Compression Set			ASTM D395
73°F, 22 hr ³	21	%	
158°F, 22 hr ⁴	37	%	
Hardness	Nominal Value	Unit	Test Method
Shore Hardness			ISO 868
Shore A, 5 sec	70		
Shore A, 1 sec, Injection Molded	72		
Additional Information	Nominal Value	Unit	Test Method
Apparent Shear Viscosity - Capillary, @ 206/s (392°F)	240	Pa·s	ASTM D3835

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Processing Information

Injection	Nominal Value	Unit
Rear Temperature	320 to 350	°F
Middle Temperature	360 to 400	°F
Front Temperature	380 to 420	°F
Nozzle Temperature	360 to 440	°F
Processing (Melt) Temp	360 to 440	°F
Mold Temperature	80 to 120	°F
Injection Rate	Moderate-Fast	
Back Pressure	25.0 to 100	psi
Screw Speed	50 to 100	rpm
Cushion	0.150 to 0.500	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 Method Ba, Angle (Unnicked)

³ Type B

⁴ Type A