



Monprene® CP-38140

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene CP-38140 is a high performance thermoplastic elastomer designed for a variety of consumer product applications requiring a soft, rubber-like feel. Monprene CP-38140 is a low hardness, low density, clear grade that is suitable for cast film and extrusion.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Good Adhesion • Good Colorability • Good Flexibility • Good Melt Strength • Good Moldability	• Good Processability • Good Tear Strength • Good Toughness • Halogen Free • High Elongation	• Low Density • Low Flow • Low Hardness • Resilient
Uses	• Consumer Applications • Diaphragms • Film • Flexible Grips • General Purpose	• Grommets • Handles • Knobs • Overmolding • Plugs	• Profiles • Rubber Replacement • Seals • Soft Touch Applications • Tubing
RoHS Compliance	• RoHS Compliant		
Appearance	• Clear/Transparent	• Colors Available	• Natural Color
Forms	• Pellets		
Processing Method	• Cast Film	• Extrusion	

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)	18	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ²			ASTM D412
Across Flow : 100% Strain	110	psi	
Flow : 100% Strain	152	psi	
Tensile Stress ²			ASTM D412
Across Flow : 300% Strain	212	psi	
Flow : 300% Strain	278	psi	
Tensile Strength ²			ASTM D412
Across Flow : Break	1020	psi	
Flow : Break	938	psi	
Tensile Elongation ²			ASTM D412
Across Flow : Break	700	%	
Flow : Break	730	%	
Tear Strength ²			ASTM D624
Across Flow	135	lbf/in	
Flow	133	lbf/in	
Compression Set ³ (73°F, 22 hr)	17	%	ASTM D395B

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Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	36		
Shore A, 5 sec, Injection Molded	34		
Fill Analysis	Nominal Value	Unit	Test Method
Apparent Viscosity (392°F, 207 sec ⁻¹)	162	Pa·s	ASTM D3835

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	340 to 380	°F
Middle Temperature	340 to 380	°F
Front Temperature	340 to 380	°F
Nozzle Temperature	340 to 380	°F
Processing (Melt) Temp	340 to 380	°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).

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	320 to 360	°F
Cylinder Zone 2 Temp.	320 to 360	°F
Cylinder Zone 3 Temp.	320 to 360	°F
Cylinder Zone 4 Temp.	320 to 360	°F
Cylinder Zone 5 Temp.	320 to 360	°F
Die Temperature	320 to 360	°F

Extrusion Notes

Screw Speed: 30 to 100 rpm

Notes

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

² Die C, 20 in/min

³ Type 1