



Monprene® CP-18185

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene CP-18185 is a general purpose thermoplastic elastomer designed for a variety of consumer product applications requiring a soft, rubber-like feel. Monprene CP-18185 exhibits good tear strength and abrasion resistance and is suitable for injection molding.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Abrasion Resistant • Good Colorability • Good Mold Release • Good Moldability • Good Strength	• Good Tear Strength • High Hardness • Low Density • Low Specific Gravity • Low Temperature Flexibility	• Lubricated • Medium Flow • Slip
Uses	• Consumer Applications • Flexible Grips • Gaskets	• General Purpose • Handles • Safety Equipment	• Soft Touch Applications • Sporting Goods • Writing Instruments
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Natural Color	• Translucent
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.892		ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	12	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ²			ASTM D412
Across Flow : 100% Strain	804	psi	
Flow : 100% Strain	968	psi	
Tensile Stress ²			ASTM D412
Across Flow : 300% Strain	966	psi	
Flow : 300% Strain	1180	psi	
Tensile Strength ²			ASTM D412
Across Flow : Break	1370	psi	
Flow : Break	1630	psi	
Tensile Elongation ²			ASTM D412
Across Flow : Break	550	%	
Flow : Break	550	%	
Tear Strength ²			ASTM D624
Across Flow	376	lbf/in	
Flow	387	lbf/in	
Compression Set ³ (73°F, 22 hr)	29	%	ASTM D395B
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A	87		
Shore A, 5 sec	85		
Shore A, 15 sec, Injection Molded	87		

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Fill Analysis	Nominal Value	Unit	Test Method
Apparent Viscosity (392°F, 207 sec ⁻¹)	125	Pa·s	ASTM D3835

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	360 to 400	°F
Middle Temperature	360 to 400	°F
Front Temperature	360 to 400	°F
Nozzle Temperature	360 to 400	°F
Processing (Melt) Temp	360 to 400	°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).

Notes

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

² Die C, 20 in/min

³ Type 1