



Monprene® CP-18178

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene CP-18178 is a high performance thermoplastic elastomer designed for a variety of consumer product applications requiring a soft, rubber-like feel. Monprene CP-18178 is a high hardness grade that exhibits sunlight resistance and UV absorbing characteristics, suitable for injection molding.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Good Mold Release • Good Moldability • Good Processability • High Flow	• High Hardness • Light Stabilized • Low Density • Low Specific Gravity	• Lubricated • Slip • Without Fillers
Uses	• Consumer Applications • Handles	• Kitchenware • Safety Equipment	• Sporting Goods • Writing Instruments
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.890		ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	17	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ²			ASTM D412
Across Flow : 100% Strain	672	psi	
Flow : 100% Strain	922	psi	
Tensile Stress ²			ASTM D412
Across Flow : 300% Strain	852	psi	
Flow : 300% Strain	1140	psi	
Tensile Strength ²			ASTM D412
Across Flow : Break	1310	psi	
Flow : Break	1360	psi	
Tensile Elongation ²			ASTM D412
Across Flow : Break	580	%	
Flow : Break	470	%	
Tear Strength ²			ASTM D624
Across Flow	291	lbf/in	
Flow	317	lbf/in	
Compression Set ³ (73°F, 22 hr)	28	%	ASTM D395B
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	80		
Shore A, 5 sec, Injection Molded	78		

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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