



Monprene® SP-14077

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene SP-14077 is a general purpose thermoplastic elastomer designed for a variety of consumer product applications, including sports and recreation applications, requiring a soft, rubber-like feel. Monprene SP-14077 is a medium hardness, low density grade that exhibits medium flow characteristics and is suitable 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 Processability • Good Toughness • Good Weather Resistance • Low Density • Low Specific Gravity	• Medium Flow • Medium Hardness • Resilient • Without Fillers
Uses	• Consumer Applications • Flexible Grips • Gaskets • Grommets	• Handles • Plugs • Rubber Replacement • Soft Touch Applications	• Sporting Goods • Swimming Pools
RoHS Compliance	• RoHS Compliant		
Appearance	• Black • Colors Available	• Natural Color • Opaque	
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) (200°C/5.0 kg)	17	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ²			ASTM D412
Across Flow : 100% Strain	444	psi	
Flow : 100% Strain	642	psi	
Tensile Stress ²			ASTM D412
Across Flow : 300% Strain	650	psi	
Flow : 300% Strain	871	psi	
Tensile Strength ²			ASTM D412
Across Flow : Break	1370	psi	
Flow : Break	1160	psi	
Tensile Elongation ²			ASTM D412
Across Flow : Break	670	%	
Flow : Break	500	%	
Tear Strength ²			ASTM D624
Across Flow	252	lbf/in	
Flow	228	lbf/in	
Compression Set ³			ASTM D395B
73°F, 22 hr	23	%	
158°F, 22 hr	92	%	

Monprene® SP-14077

Teknor Apex Company - Thermoplastic Elastomer

Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	77		
Shore A, 5 sec, Injection Molded	75		

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
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).

Notes

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

² Die C, 20 in/min

³ Type 1