



Monprene® PR-23040

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene PR-23040 is a general purpose thermoplastic elastomer designed for a variety of consumer product applications requiring a soft, rubber-like feel. Monprene PR-23040 is a low hardness, low density grade that exhibits good flexibility and is suitable for injection molding and extrusion.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Bondability • Chemical Resistant • Filled • Good Adhesion • Good Colorability	• Good Flexibility • Good Processability • Good Toughness • Low Density • Low Flow	• Low Hardness • Low Specific Gravity • Resilient • Soft
Uses	• Bushings • Consumer Applications • Gaskets • Handles	• Overmolding • Plugs • Rubber Replacement • Safety Equipment	• Seals • Soft Touch Applications • Tubing
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Natural Color	• Opaque
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.950		ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	2.0	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ²			ASTM D412
Across Flow : 100% Strain	208	psi	
Flow : 100% Strain	277	psi	
Tensile Stress ²			ASTM D412
Across Flow : 300% Strain	380	psi	
Flow : 300% Strain	498	psi	
Tensile Strength ²			ASTM D412
Across Flow : Break	1030	psi	
Flow : Break	700	psi	
Tensile Elongation ²			ASTM D412
Across Flow : Break	700	%	
Flow : Break	590	%	
Tear Strength ²			ASTM D624
Across Flow	174	lbf/in	
Flow	137	lbf/in	
Compression Set ³			ASTM D395B
73°F, 22 hr	14	%	
158°F, 22 hr	91	%	

Monprene® PR-23040

Teknor Apex Company - Thermoplastic Elastomer

Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	42		
Shore A, 5 sec, Injection Molded	40		

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	400 to 440	°F
Middle Temperature	400 to 440	°F
Front Temperature	400 to 440	°F
Nozzle Temperature	400 to 440	°F
Processing (Melt) Temp	400 to 440	°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.	380 to 420	°F
Cylinder Zone 2 Temp.	380 to 420	°F
Cylinder Zone 3 Temp.	380 to 420	°F
Cylinder Zone 4 Temp.	380 to 420	°F
Cylinder Zone 5 Temp.	380 to 420	°F
Die Temperature	380 to 420	°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