



Monprene® IN-15056

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene IN-15056 is a general purpose thermoplastic elastomer, available in NAT and pre-colored, designed for the industrial market, including caster wheels. Monprene IN-15056 is a medium hardness, low density, clear grade that exhibits low compression set, good abrasion and chemical resistance, 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	• Abrasion Resistant • Chemical Resistant • Good Colorability • Good Melt Strength	• Good Tear Strength • Good Weather Resistance • Low Compression Set • Low Density	• Low Specific Gravity • Medium Hardness
Uses	• Building Materials • Expansion Joint • Gaskets • Glazing • Hose	• Industrial Applications • Outdoor Applications • Pipe Seals • Potable Water Applications • Roof Vents	• Rubber Replacement • Strain Reliefs • White Goods & Small Appliances • Windows & Doors
RoHS Compliance	• RoHS Compliant		
Appearance	• Clear/Transparent	• Colors Available	• Natural Color
Forms	• Pellets		
Processing Method	• Extrusion	• 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)	1.0	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ²			ASTM D412
Across Flow : 100% Strain	288	psi	
Flow : 100% Strain	395	psi	
Tensile Stress ²			ASTM D412
Across Flow : 300% Strain	562	psi	
Flow : 300% Strain	532	psi	
Tensile Strength ²			ASTM D412
Across Flow : Break	1450	psi	
Flow : Break ³	3220	psi	
Flow : Break	1000	psi	
Tensile Elongation ²			ASTM D412
Across Flow : Break	680	%	
Flow : Break ³	730	%	
Flow : Break	440	%	
Tear Strength ²			ASTM D624
Across Flow	267	lbf/in	
Flow	182	lbf/in	

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Elastomers	Nominal Value	Unit	Test Method
Compression Set ⁴			ASTM D395B
73°F, 22 hr	17	%	
158°F, 22 hr	90	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	64		
Shore A, 5 sec, Injection Molded	62		

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	420 to 460	°F
Middle Temperature	420 to 460	°F
Front Temperature	420 to 460	°F
Nozzle Temperature	420 to 460	°F
Processing (Melt) Temp	420 to 460	°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.	400 to 440	°F
Cylinder Zone 2 Temp.	400 to 440	°F
Cylinder Zone 3 Temp.	400 to 440	°F
Cylinder Zone 4 Temp.	400 to 440	°F
Cylinder Zone 5 Temp.	400 to 440	°F
Die Temperature	400 to 440	°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 Extruded tape

⁴ Type 1