



Monprene® IN-15041

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene IN-15041 is a general purpose thermoplastic elastomer designed for the industrial market, including wheels and castors. Monprene IN-15041 is a medium hardness, low density grade with good toughness and compression set that is suitable for extrusion or injection molding.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Abrasion Resistant • Blush Resistant • Bondability • Chemical Resistant • Fast Molding Cycle • General Purpose	• Good Adhesion • Good Flexibility • Good Moldability • Good Processability • Good Tear Strength • Low Density	• Low Flow • Low Specific Gravity • Machinable • Medium Hardness • Resilient • Without Fillers
Uses	• Conveyor Parts • Gears • General Purpose	• Handles • Industrial Applications • Overmolding	• Profiles • Wheels/Casters
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color	• Translucent	
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.880		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	180	psi	
Flow : 100% Strain	299	psi	
Tensile Stress ²			ASTM D412
Across Flow : 300% Strain	333	psi	
Flow : 300% Strain	486	psi	
Tensile Strength ²			ASTM D412
Across Flow : Break	1360	psi	
Flow : Break	628	psi	
Tensile Elongation ²			ASTM D412
Across Flow : Break	760	%	
Flow : Break	440	%	
Tear Strength ²			ASTM D624
Across Flow	185	lbf/in	
Flow	130	lbf/in	
Compression Set ³			ASTM D395B
73°F, 22 hr	16	%	
158°F, 22 hr	66	%	

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Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	44		
Shore A, 5 sec, Injection Molded	41		

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 Type 1