



Monprene® IN-22059

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene IN-22059 is a high performance thermoplastic elastomer designed for the industrial market including seals and gaskets. Monprene IN-22059 is a medium hardness, medium density grade that is suitable for injection molding or extrusion.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Bondability • Filled • General Purpose • Good Colorability	• Good Mold Release • Good Moldability • Good Processability • Low Flow	• Medium Density • Medium Hardness
Uses	• Consumer Applications • Gaskets	• Handles • Industrial Applications	• Tubing
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.00		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	252	psi	
Flow : 100% Strain	472	psi	
Tensile Stress ²			ASTM D412
Across Flow : 300% Strain	406	psi	
Flow : 300% Strain	538	psi	
Tensile Strength ²			ASTM D412
Across Flow : Break	1310	psi	
Flow : Break	626	psi	
Tensile Elongation ²			ASTM D412
Across Flow : Break	750	%	
Flow : Break	310	%	
Tear Strength ²			ASTM D624
Across Flow	170	lbf/in	
Flow	131	lbf/in	
Compression Set ³			ASTM D395B
73°F, 22 hr	18	%	
158°F, 22 hr	38	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	61		
Shore A, 5 sec, Injection Molded	59		

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Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	< -76.0	°F	ASTM D746

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