Monprene® IN-12990 NAT

Teknor Apex Company - Thermoplastic Elastomer

Wednesday, April 1, 2026

General Information

Product Description

Monprene IN-12990 NAT is a high performance thermoplastic elastomer designed for the industrial market including seals and gaskets. Monprene IN-12990 NAT is a high hardness, low density, RoHS compliant grade suitable for injection molding or extrusion.

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Abrasion Resistant • Good Melt Strength • Good Mold Release • Good Moldability • Good Processability	• Good Processing Stability • High Elongation • High Flow • High Hardness • Light Stabilized	• Low Density • Low Specific Gravity • Lubricated
Uses	• Gaskets • Handles	• Industrial Applications • Outdoor Applications	• Sporting Goods • Tubing
RoHS Compliance	• RoHS Compliant		
Appearance	• Clear/Transparent	• Colors Available	
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

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)	1.5	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress [2]			ASTM D412
Across Flow : 100% Strain	620	psi	
Flow : 100% Strain	775	psi	
Tensile Stress [2]			ASTM D412
Across Flow : 300% Strain	803	psi	
Flow : 300% Strain	1010	psi	
Tensile Strength [2]			ASTM D412
Across Flow : Break	3000	psi	
Flow : Break	1920	psi	
Tensile Elongation [2]			ASTM D412
Across Flow : Break	830	%	
Flow : Break	670	%	
Tear Strength [2]			ASTM D624
Across Flow	362	lbf/in	
Flow	340	lbf/in	
Compression Set [3]			ASTM D395B
73°F, 22 hr	30	%	
158°F, 22 hr	63	%	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	92		
Shore A, 5 sec, Injection Molded	90		

Revision Date: 6/4/2024

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Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	149	°F	ASTM D1525

Legal Statement

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Processing Information

Injection	Nominal Value	Unit
Rear Temperature	380 to 420	°F
Middle Temperature	380 to 420	°F
Front Temperature	380 to 420	°F
Nozzle Temperature	380 to 420	°F
Processing (Melt) Temp	380 to 420	°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

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