



Monprene® IN-12985

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene IN-12985 is a high performance high hardness filled thermoplastic elastomer designed for a variety of applications in the industrial market. Monprene IN-12985 is light stabilized, has good compression set 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 • Filled • Good Colorability • Good Melt Strength	• Good Mold Release • Good Moldability • Good Processability • High Hardness	• Light Stabilized • Low Density • Low Flow • Low Specific Gravity
Uses	• Gaskets • Handles	• Industrial 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	0.940		ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	15	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ²			ASTM D412
Across Flow : 100% Strain	635	psi	
Flow : 100% Strain	771	psi	
Tensile Stress ²			ASTM D412
Across Flow : 300% Strain	804	psi	
Flow : 300% Strain	977	psi	
Tensile Strength ²			ASTM D412
Across Flow : Break	3220	psi	
Flow : Break	2210	psi	
Tensile Elongation ²			ASTM D412
Across Flow : Break	850	%	
Flow : Break	700	%	
Tear Strength ²			ASTM D624
Across Flow	349	lbf/in	
Flow	341	lbf/in	
Compression Set ³			ASTM D395B
73°F, 22 hr	34	%	
158°F, 22 hr	57	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	89		
Shore A, 5 sec, Injection Molded	85		

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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.	360 to 400	°F
Cylinder Zone 2 Temp.	360 to 400	°F
Cylinder Zone 3 Temp.	360 to 400	°F
Cylinder Zone 4 Temp.	360 to 400	°F
Cylinder Zone 5 Temp.	360 to 400	°F
Die Temperature	360 to 400	°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