+135-3858-6433 (GuangDong)
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TEKNOR APEX

Monprene® IN-12490

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene IN-12490 is a general purpose thermoplastic elastomer, available in NAT and BLK, designed for the industrial market. Monprene IN-12490 is a high hardness, low density, UV stable grade suitable for injection molding and extrusion.

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Bondability • Good Colorability • Good Mold Release • Good Moldability • Good Processability	• High Hardness • Light Stabilized • Low Density • Low Flow • Low Specific Gravity	• Lubricated • Slip • Without Fillers
Uses	• Consumer Applications • Gaskets • Handles	• Industrial Applications • Sporting Goods • Tubing	• Writing Instruments
RoHS Compliance	• RoHS Compliant		
Appearance	• Black	• 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)	1.5	g/10 min	ASTM D1238
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Flexural Modulus	14500	psi	ASTM D790
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress [2]			ASTM D412
Across Flow : 100% Strain	719	psi	
Flow : 100% Strain	862	psi	
Tensile Stress [2]			ASTM D412
Across Flow : 300% Strain	906	psi	
Flow : 300% Strain	1080	psi	
Tensile Strength [2]			ASTM D412
Across Flow : Break	3220	psi	
Flow : Break	2090	psi	
Tensile Elongation [2]			ASTM D412
Across Flow : Break	790	%	
Flow : Break	660	%	
Compression Set [3]			ASTM D395B
73°F, 22 hr	37	%	
158°F, 22 hr	54	%	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	92		
Shore A, 5 sec, Injection Molded	90		

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

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