



Monprene® IN-32978 XRD1 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene IN-32978 XRD1 is a general purpose thermoplastic elastomer designed for a variety of industrial applications, including seals and gaskets. Monprene IN-32978 XRD1 is a low density, high hardness, RoHS compliant grade suitable for injection molding and extrusion.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Chemical Resistant • General Purpose • Good Adhesion • Good Colorability • Good Flexibility • Good Moldability	• Good Processability • Good Toughness • Halogen Free • High Hardness • Light Stabilized • Low Density	• Low Specific Gravity • Resilient • Slip • Without Fillers
Uses	• Appliances • Consumer Applications • Flexible Grips • Furniture • Gaskets • Handles	• Household Goods • Knobs • Personal Care • Rubber Replacement • Safety Equipment • Seals	• Soft Touch Applications • Sporting Goods • Water Sports Equipment • Writing Instruments
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Translucent	
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)	9.0	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ² (100% Strain)	620	psi	ASTM D412
Tensile Stress ² (Break)	1750	psi	ASTM D412
Tensile Elongation ² (Break)	720	%	ASTM D412
Tear Strength ²	287	lbf/in	ASTM D624
Compression Set ³			ASTM D395
73°F, 22 hr	25	%	
158°F, 22 hr	44	%	
Hardness	Nominal Value	Unit	Test Method
Shore Hardness			ASTM D2240
Shore A, 5 sec	78		
Shore A, 1 sec, Injection Molded	80		
Additional Information	Nominal Value	Unit	Test Method
Apparent Shear Viscosity - Capillary, @ 206/s (392°F)	260	Pa·s	ASTM D3835

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Processing Information

Injection	Nominal Value	Unit
Rear Temperature	320 to 350	°F
Middle Temperature	360 to 400	°F
Front Temperature	380 to 420	°F
Nozzle Temperature	360 to 440	°F
Processing (Melt) Temp	360 to 440	°F
Mold Temperature	80 to 120	°F
Injection Rate	Moderate-Fast	
Back Pressure	25.0 to 100	psi
Screw Speed	50 to 100	rpm
Cushion	0.150 to 0.500	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.	300 to 320	°F
Cylinder Zone 2 Temp.	320 to 399	°F
Cylinder Zone 3 Temp.	340 to 421	°F
Cylinder Zone 4 Temp.	360 to 441	°F
Die Temperature	360 to 441	°F

Extrusion Notes

Screw Speed: 30 to 100 rpm

Drying is not necessary. However, if moisture is a problem, dry the pellets for 2 to 4 hours at 150°F (65°C).

Notes

¹ Typical properties: these are not to be construed as specifications.

² 20 in/min

³ Type B