



Monprene® IN-32255 XRD3

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene IN-32255 XRD3 is a general purpose thermoplastic elastomer, designed for a variety of industrial applications, including seals and gaskets. Monprene IN-32255 XRD3 is a low density, medium 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	• Abrasion Resistant • Chemical Resistant • Filled • Foamable • Good Adhesion • Good Colorability • Good Melt Strength	• Good Moldability • Good Processability • Good Processing Stability • Good Tear Strength • Good Toughness • Halogen Free • High Elongation	• Low Compression Set • Low Density • Low Flow • Low Specific Gravity • Medium Hardness
Uses	• Foam • Gaskets • Handles • Hose	• Industrial Applications • Low Temperature Applications • Pipe Seals • Profiles	• Rubber Replacement • Seals • Tubing • Windows & Doors
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	0.950		ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	5.0	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ²			ASTM D412
Across Flow : 100% Strain	269	psi	
Flow : 100% Strain	541	psi	
Tensile Stress ²			ASTM D412
Across Flow : 300% Strain	422	psi	
Flow : 300% Strain	693	psi	
Tensile Strength ²			ASTM D412
Across Flow : Break	1280	psi	
Flow : Break	702	psi	
Tensile Elongation ²			ASTM D412
Across Flow : Break	770	%	
Flow : Break	310	%	
Tear Strength ²			ASTM D624
Across Flow	201	lbf/in	
Flow	144	lbf/in	
Compression Set ³			ASTM D395B
73°F, 22 hr	19	%	
158°F, 22 hr	43	%	

Monprene® IN-32255 XRD3

Teknor Apex Company - Thermoplastic Elastomer

Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	59		
Shore A, 5 sec, Injection Molded	57		
Fill Analysis	Nominal Value	Unit	Test Method
Apparent Viscosity (392°F, 207 sec ⁻¹)	230	Pa·s	ASTM D3835

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	400 to 440	°F
Middle Temperature	400 to 440	°F
Front Temperature	400 to 440	°F
Nozzle Temperature	400 to 440	°F
Processing (Melt) Temp	400 to 440	°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.	380 to 420	°F
Cylinder Zone 2 Temp.	380 to 420	°F
Cylinder Zone 3 Temp.	380 to 420	°F
Cylinder Zone 4 Temp.	380 to 420	°F
Cylinder Zone 5 Temp.	380 to 420	°F
Die Temperature	380 to 420	°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