



Monprene® IN-15089 NAT XRD3 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene IN-15089 NAT XRD3 is a high performance thermoplastic elastomer designed for a variety of industrial applications including castor wheels. Monprene IN-15089 NAT XRD3 is a high hardness, easily colorable grade with good abrasion resistance, toughness and bondability to PP. This grade has very good processability designed for injection molding, overmolding, and multi-shot but can also be extruded.

General

Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Abrasion Resistant • Chemical Resistant • Good Adhesion • Good Colorability	• Good Melt Strength • Good Processing Stability • Good Tear Strength • Good Toughness	• High Hardness • Low Compression Set • Low Density • Low Flow
Uses	• Gaskets • Handles • Industrial Applications	• Low Temperature Applications • Profiles • Rubber Replacement	• Wheels/Casters
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	0.892		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 Strength (Break)	2900	psi	ASTM D412
Tensile Elongation (Break)	500	%	ASTM D412
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	90		
Shore A, 5 sec, Injection Molded	88		

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	380 to 460	°F
Middle Temperature	380 to 460	°F
Front Temperature	380 to 460	°F
Nozzle Temperature	380 to 460	°F
Processing (Melt) Temp	380 to 460	°F

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Injection	Nominal Value	Unit
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.