



Monprene® SP-14118 NAT XRD1 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene SP-14118 NAT XRD1, available in NAT and colors, is a high performance thermoplastic elastomer designed for a variety of consumer product applications requiring a soft, rubber-like feel. Monprene SP-14118 NAT XRD1 is a low density, low hardness, lubricated grade that is suitable for injection molding.

General

Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Chlorine Resistant • Fatigue Resistant • Good Colorability	• Good Flexibility • Good Flow • Low Density	• Low Hardness
Uses	• Rubber Replacement	• Sporting Goods	• Water Sports Equipment
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Natural Color	• Translucent
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.880		ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	5.0	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress - Flow ² (100% Strain)	140	psi	ASTM D412
Tensile Stress - Flow ² (300% Strain)	280	psi	ASTM D412
Tensile Strength - Flow ² (Break)	960	psi	ASTM D412
Tensile Elongation - Flow ² (Break)	740	%	ASTM D412
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	20		
Shore A, 5 sec, Injection Molded	18		

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

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Injection	Nominal Value	Unit
Mold Temperature	60 to 90	°F
Injection Pressure	200 to 1000	psi
Injection Rate	Moderate-Fast	
Back Pressure	25.0 to 50.0	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).

Notes

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

² Die C, 20 in/min