



Monprene® SP-18540D NAT XRD1 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene SP-18540D NAT XRD1 is a general purpose thermoplastic elastomer designed for a variety of consumer product applications requiring high hardness.

General

Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Medium Density	• Medium Flow	
Uses	• Consumer Applications	• Sporting Goods	
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color	• Opaque	
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.01		ASTM D792
Elastomers	Nominal Value	Unit	Test Method
Tensile Strength (Break)	4350	psi	ASTM D412
Tensile Elongation (Break)	500	%	ASTM D412
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D, Injection Molded)	42		ASTM D2240

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
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 necessary to dry the pellets for 3 - 4 hours at recommended temperature of 80°C to 90°C.

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Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	360 to 400	°F
Cylinder Zone 2 Temp.	360 to 400	°F
Cylinder Zone 3 Temp.	360 to 400	°F
Cylinder Zone 4 Temp.	360 to 400	°F
Cylinder Zone 5 Temp.	360 to 400	°F
Die Temperature	360 to 400	°F

Extrusion Notes

Screw Speed: 30 to 100 rpm

Notes

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