



Monprene® SP-14171 AP NAT XRD2 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene® SP-14171 AP XRD2 is a high performance thermoplastic elastomer that is designed for a variety of consumer applications including water sporting goods. Monprene® SP-14171 AP XRD2 is a translucent, medium hardness, low density, high flow grade that is designed for injection molding.

General

Material Status	• Preliminary Data		
Availability	• Asia Pacific • Europe	• Latin America • North America	
Features	• Chemical Resistant • Good Adhesion • Good Colorability • Good Flexibility • Good Moldability	• Good Toughness • Good Weather Resistance • High Flow • Low Density • Low Specific Gravity	• Medium Hardness • Moisture Resistant • Resilient • Wear Resistant
Uses	• Consumer Applications • Flexible Grips • Gaskets • Grommets	• Handles • Plugs • Rubber Replacement • Soft Touch Applications	• Sporting Goods • Swimming Pools • Water Sports Equipment • Writing Instruments
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Natural Color	• Translucent
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) (190°C/2.16 kg)	6.0	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Strength ² (Break)	1450	psi	ASTM D412
Tensile Elongation ² (Break)	600	%	ASTM D412
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A)	80		ASTM D2240

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	360 to 450	°F
Middle Temperature	370 to 460	°F
Front Temperature	380 to 470	°F
Nozzle Temperature	390 to 480	°F
Processing (Melt) Temp	390 to 480	°F

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Injection	Nominal Value	Unit
Mold Temperature	95 to 120	°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.	360 to 450	°F
Cylinder Zone 2 Temp.	370 to 460	°F
Cylinder Zone 3 Temp.	380 to 470	°F
Cylinder Zone 4 Temp.	380 to 470	°F
Cylinder Zone 5 Temp.	390 to 480	°F
Die Temperature	390 to 480	°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