



Monprene® SP-19985 XRD1 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene SP-19985 XRD1 is a high performance thermoplastic elastomer designed for a variety of consumer sporting goods applications including playground flooring requiring a soft, rubber-like feel. Monprene SP-19985 XRD1, available in NAT and colors, is a high hardness, medium density, UV stabilized grade that exhibits excellent abrasion resistance and is suitable for injection molding.

General

Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Abrasion Resistant • Brominated • Filled • Flame Retardant • Good Colorability	• High Flow • High Hardness • Light Stabilized • Lubricated • Medium Density	• Slip • Sunlight Resistant • UV Resistant
Uses	• Flooring	• Rubber Replacement	
RoHS Compliance	• RoHS Compliant		
Appearance	• Blue	• Natural Color	
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.02		ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	18	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ²			ASTM D412
Across Flow : 100% Strain	761	psi	
Flow : 100% Strain	855	psi	
Tensile Stress ²			ASTM D412
Across Flow : 300% Strain	969	psi	
Flow : 300% Strain	1080	psi	
Tensile Strength ²			ASTM D412
Across Flow : Break	1480	psi	
Flow : Break	1520	psi	
Tensile Elongation ²			ASTM D412
Across Flow : Break	590	%	
Flow : Break	550	%	
Tear Strength ²			ASTM D624
Across Flow	228	lbf/in	
Flow	256	lbf/in	
Compression Set ³			ASTM D395B
73°F, 22 hr	37	%	
158°F, 22 hr	66	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	87		
Shore A, 5 sec, Injection Molded	85		

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Flammability	Nominal Value	Unit	Test Method
Oxygen Index	20	%	ASTM D2863

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 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

³ Type 1