



# Monprene® SP-19985 XRD2 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

## General Information

### Product Description

Monprene SP-19985 XRD2 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 XRD2, available in NAT and colors, is a higher 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	• Ablation 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 <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.02		ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	24	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress <sup>2</sup>			ASTM D412
Across Flow : 100% Strain	706	psi	
Flow : 100% Strain	837	psi	
Tensile Stress <sup>2</sup>			ASTM D412
Across Flow : 300% Strain	917	psi	
Flow : 300% Strain	1080	psi	
Tensile Strength <sup>2</sup>			ASTM D412
Across Flow : Break	1320	psi	
Flow : Break	1440	psi	
Tensile Elongation <sup>2</sup>			ASTM D412
Across Flow : Break	600	%	
Flow : Break	550	%	
Tear Strength <sup>2</sup>			ASTM D624
Across Flow	213	lbf/in	
Flow	256	lbf/in	
Compression Set <sup>3</sup>			ASTM D395B
73°F, 22 hr	40	%	
158°F, 22 hr	71	%	
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

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> Die C, 20 in/min

<sup>3</sup> Type 1