

Monprene® SP-19947

Thermoplastic Elastomer

Teknor Apex Company

Message:

Monprene SP-19947 is a high performance thermoplastic elastomer designed for a variety of consumer product applications including sporting goods. Monprene SP-19947 is a low hardness, low density medium flow UV stabilized grade that is designed for injection molding but can be extruded.

General Information	
Features	Low Specific Gravity
	Sunlight Resistant
	Without Fillers
	Low density
	smoothness
	Good UV resistance
	Workability, good
	Good formability
	Good flexibility
	Good coloring
	Good adhesion
	Medium liquidity
	Good chemical resistance
	Good toughness
	Lubrication
	General
	Hardness, low
	Elastic
Uses	overmolding
	Soft touch application
	Soft handle
	Sporting goods
	General
	Rubber substitution
	Consumer goods application field
RoHS Compliance	RoHS compliance
Appearance	Available colors
	Clear/transparent
	Natural color

Forms	Particle
Processing Method	Extrusion
	Injection molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.888	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	3.0	g/10 min	ASTM D1238
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 second, injection molding	50		ASTM D2240
Shore A, 5 seconds, injection molding	47		ASTM D2240
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ¹			ASTM D412
Transverse flow: 100% strain	1.30	MPa	ASTM D412
Flow: 100% strain	1.85	MPa	ASTM D412
Transverse flow: 300% strain	1.96	MPa	ASTM D412
Flow: 300% strain	2.47	MPa	ASTM D412
Tensile Strength ²			ASTM D412
Transverse flow: Fracture	6.74	MPa	ASTM D412
Flow: Fracture	3.23	MPa	ASTM D412
Tensile Elongation ³			ASTM D412
Transverse flow: Fracture	790	%	ASTM D412
Flow: Fracture	540	%	ASTM D412
Tear Strength ⁴			ASTM D624
Transverse flow	24.3	kN/m	ASTM D624
Flow	20.1	kN/m	ASTM D624
Compression Set ⁵			ASTM D395B
23°C, 22 hr	20	%	ASTM D395B
70°C, 22 hr	48	%	ASTM D395B

Legal statement

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Injection	Nominal Value	Unit
Rear Temperature	182 - 232	°C
Middle Temperature	188 - 238	°C
Front Temperature	193 - 243	°C
Nozzle Temperature	199 - 249	°C
Processing (Melt) Temp	199 - 249	°C

Mold Temperature	35 - 49	°C
Injection Pressure	1.38 - 5.52	MPa
Injection Rate	Fast	
Back Pressure	0.172 - 0.689	MPa
Screw Speed	50 - 100	rpm
Cushion	3.81 - 25.4	mm

Injection instructions

无需干燥.但如果湿度过大,则将粒料在150°F (65°C)的温度下干燥2-4小时.

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	182 - 232	°C
Cylinder Zone 2 Temp.	188 - 238	°C
Cylinder Zone 3 Temp.	193 - 243	°C
Cylinder Zone 4 Temp.	193 - 243	°C
Cylinder Zone 5 Temp.	199 - 249	°C
Die Temperature	199 - 249	°C

Extrusion instructions

螺杆转速30 - 100 rpm

NOTE

1. C mold, 510mm/min
2. C mold, 510mm/min
3. C mold, 510mm/min
4. C mold, 510mm/min
5. Type 1

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