

Monprene® PC-12159

Thermoplastic Elastomer

Teknor Apex Company

Message:

Monprene PC-12159 is a general purpose thermoplastic elastomer designed for a variety of consumer product applications requiring a soft, rubber-like feel. Monprene PC-12159 is a low hardness, transparent grade that exhibits good mold release, and is suitable for injection molding and extrusion.

General Information	
Features	High elasticity Good liquidity Good flexibility Good tear strength Good coloring Good demoulding performance
Uses	Safety equipment Handle Soft handle Sporting goods Stationery Consumer goods application field Toothbrush handle
Appearance	Clear/transparent
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) (200°C/5.0 kg)	20	g/10 min	ASTM D1238
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shaw A	62		ASTM D2240
Shaw A, 5 seconds	60		ASTM D2240
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412
100% strain	1.91	MPa	ASTM D412
300% strain	4.83	MPa	ASTM D412
Tensile Strength (Break)	12.2	MPa	ASTM D412

Tensile Elongation (Break)	660	%	ASTM D412
Tear Strength - Flow ¹	43.6	kN/m	ASTM D624
Compression Set (23°C, 22 hr)	13	%	ASTM D395
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	35.0 - 48.9	°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 5 Temp.	199 - 249	°C	
Die Temperature	199 - 249	°C	

Extrusion instructions

螺杆转速30 - 100 rpm

NOTE

1. C mould

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