

Monprene® OM-16175

Thermoplastic Elastomer

Teknor Apex Company

Message:

Monprene OM-16175 is a specialty thermoplastic elastomer designed for overmolding applications like grips and anti-skid parts for a variety of consumer and industrial products. Monprene OM-16175 is a medium hardness, low density opaque grade that is available in Black, Natural, and can be pre-colored, and exhibits excellent adhesion to nylon.

General Information			
Features	smoothness		
	Light stabilization		
	Adhesiveness		
	Good coloring		
	Good adhesion		
	Medium liquidity		
	Lubrication		
	Medium density		
	Medium hardness		
Uses	Handle		
	overmolding		
	Power/other tools		
	Soft handle		
	Mobile phone		
	Sporting goods		
	Rubber substitution		
	Knob		
	Bonding		
RoHS Compliance	RoHS compliance		
Appearance	Unspecified Color		
	Black		
	Natural color		
Forms	Particle		
Processing Method	Extrusion		
	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.958	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
Shore A, 1 second, injection molding	77		ASTM D2240
Shore A, 5 seconds, injection molding	75		ASTM D2240
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ¹			ASTM D412
Transverse flow: 100% strain	2.55	MPa	ASTM D412
Flow: 100% strain	2.98	MPa	ASTM D412
Transverse flow: 300% strain	4.81	MPa	ASTM D412
Flow: 300% strain	5.85	MPa	ASTM D412
Tensile Strength ²			ASTM D412
Transverse flow: Fracture	8.23	MPa	ASTM D412
Flow: Fracture	7.51	MPa	ASTM D412
Tensile Elongation ³			ASTM D412
Transverse flow: Fracture	490	%	ASTM D412
Flow: Fracture	420	%	ASTM D412
Tear Strength ⁴			ASTM D624
Transverse flow	37.7	kN/m	ASTM D624
Flow	35.9	kN/m	ASTM D624
Compression Set ⁵			ASTM D395B
23°C, 22 hr	41	%	ASTM D395B
70°C, 22 hr	76	%	ASTM D395B

Additional Information	Nominal Value
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Adhesion to Nylon

Legal statement

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Injection	Nominal Value	Unit
Drying Temperature	60	°C
Drying Time	2.0 - 4.0	hr
Rear Temperature	182 - 204	°C
Middle Temperature	182 - 204	°C
Front Temperature	182 - 204	°C
Nozzle Temperature	182 - 204	°C
Processing (Melt) Temp	182 - 204	°C
Mold Temperature	16 - 32	°C
Injection Pressure	1.38 - 5.52	MPa
Back Pressure	0.172 - 0.862	MPa

Screw Speed	50 - 100	rpm
Cushion	3.81 - 25.4	mm
Injection instructions		
Moisture can degrade the material. Drying is suggested. This can be accomplished by placing the material in a desiccant dryer for 2 to 4 hours at 140°F.		
Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	171 - 193	°C
Cylinder Zone 2 Temp.	171 - 193	°C
Cylinder Zone 3 Temp.	171 - 193	°C
Cylinder Zone 4 Temp.	171 - 193	°C
Cylinder Zone 5 Temp.	171 - 193	°C
Die Temperature	171 - 193	°C
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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