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/cm³	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**		
Adhesion to Nylon			

Legal statement

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

Recommended distributors for this material

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