



Monprene® OM-10165

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene OM-10165 is a specialty thermoplastic elastomer, available in NAT, BLK, and colors, designed for overmolding applications like grips and anti-skid parts for a variety of consumer and industrial products. Monprene OM-10165 is a medium hardness, low density opaque grade that exhibits excellent adhesion to nylon.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Abrasion Resistant • Bondability • Chemical Resistant • Chemically Coupled • Good Adhesion • Good Colorability	• Good Moldability • Good Toughness • Good Weather Resistance • Low Density • Low Specific Gravity • Medium Flow	• Medium Hardness • Slip • Soft • Sunlight Resistant • Without Fillers
Uses	• Appliances • Bonding • Cell Phones • Flexible Grips	• Handles • Industrial Applications • Knobs • Overmolding	• Power/Other Tools • Rubber Replacement • Sporting Goods • Writing Instruments
RoHS Compliance	• RoHS Compliant		
Appearance	• Black • Colors Available	• Grey • Natural Color	• Opaque
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.920		ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	8.0	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ²			ASTM D412
Across Flow : 100% Strain	337	psi	
Flow : 100% Strain	441	psi	
Tensile Stress ²			ASTM D412
Across Flow : 300% Strain	533	psi	
Flow : 300% Strain	697	psi	
Tensile Strength ²			ASTM D412
Across Flow : Break	771	psi	
Flow : Break	798	psi	
Tensile Elongation ²			ASTM D412
Across Flow : Break	520	%	
Flow : Break	440	%	
Tear Strength ²			ASTM D624
Across Flow	167	lbf/in	
Flow	175	lbf/in	
Compression Set ³ (73°F, 22 hr)	29	%	ASTM D395B

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Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	67		
Shore A, 5 sec, Injection Molded	65		
Additional Information	Nominal Value	Unit	
Adhesion to Nylon			

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	140	°F
Rear Temperature	400 to 450	°F
Middle Temperature	440 to 480	°F
Front Temperature	480 to 510	°F
Nozzle Temperature	510 to 530	°F
Processing (Melt) Temp	510 to 530	°F
Mold Temperature	75 to 140	°F
Injection Pressure	200 to 1000	psi
Injection Rate	Fast	
Back Pressure	25.0 to 125	psi
Screw Speed	50 to 120	rpm
Cushion	0.150 to 1.00	in

Injection Notes

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 (60°C).

For any overmolding process it is recommended that the process temperatures for the TPE material be set at least 50°F (10°C) than the melt temperature of the substrate material.

Notes

¹ Typical properties: these are not to be construed as specifications.

² Die C, 20 in/min

³ Type 1