+135-3858-6433 (GuangDong)
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TEKNOR APEX

Monprene® OM-10270

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene OM-10270 is a specialty thermoplastic elastomer designed for overmolding and co-extrusion applications like grips and anti-skid parts for consumer and industrial products. Monprene OM-10270 is a medium hardness, medium density, RoHS compliant grade that exhibits excellent adhesion to PC, ABS, and PC/ABS.

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Bondability • Good Colorability • Good Mold Release • Good Moldability	• Lubricated • Medium Density • Medium Flow • Medium Hardness	• Slip • Without Fillers
Uses	• Bonding • Cell Phones • Consumer Applications • Fence Caps	• Flexible Grips • Handles • Knobs • Overmolding	• Power/Other Tools • Sporting Goods • Writing Instruments
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Natural Color	• Opaque
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.00		ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	5.0	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress [2]			ASTM D412
Across Flow : 100% Strain	351	psi	
Flow : 100% Strain	493	psi	
Tensile Stress [2]			ASTM D412
Across Flow : 300% Strain	567	psi	
Flow : 300% Strain	696	psi	
Tensile Strength [2]			ASTM D412
Across Flow : Break	1070	psi	
Flow : Break	878	psi	
Tensile Elongation [2]			ASTM D412
Across Flow : Break	730	%	
Flow : Break	620	%	
Tear Strength [2]			ASTM D624
Across Flow	208	lbf/in	
Flow	211	lbf/in	
Compression Set [3]			ASTM D395B
73°F, 22 hr	31	%	
158°F, 22 hr	87	%	

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Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	72		
Shore A, 5 sec, Injection Molded	70		

Additional Information	Nominal Value	Unit
Adhesion to ABS		
Adhesion to PC		
Adhesion to PC/ABS		

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	140	°F
Drying Time	1.0 to 2.0	hr
Rear Temperature	280 to 370	°F
Middle Temperature	310 to 390	°F
Front Temperature	310 to 420	°F
Nozzle Temperature	310 to 430	°F
Processing (Melt) Temp	330 to 430	°F
Mold Temperature	50 to 90	°F
Injection Pressure	200 to 800	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)higher 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