



Monprene® OM-10240

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene OM-10240 is a specialty thermoplastic elastomer, available in NAT, BLK, and colors, designed for overmolding applications like grips and anti-skid parts for consumer and industrial products. Monprene OM-10240 is a low hardness, medium density, UV stabilized, opaque 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	• Good Adhesion • Light Stabilized • Low Flow • Low Hardness	• Lubricated • Medium Density • Slip • Sunlight Resistant	• UV Resistant • Without Fillers
Uses	• Appliances • Bonding • Cell Phones • Dental Applications • Flexible Grips	• Handles • Knobs • Overmolding • Power/Other Tools • Rubber Replacement	• Sporting Goods • Toothbrush Handles • Writing Instruments
RoHS Compliance	• RoHS Compliant		
Appearance	• Black • Colors Available	• Grey • Natural Color	• Opaque
Forms	• Pellets		
Processing Method	• Injection Molding	• Multi Injection Molding	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.980		ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	2.0	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ²			ASTM D412
Across Flow : 100% Strain	214	psi	
Flow : 100% Strain	233	psi	
Tensile Stress ²			ASTM D412
Across Flow : 300% Strain	459	psi	
Flow : 300% Strain	495	psi	
Tensile Strength ²			ASTM D412
Across Flow : Break	751	psi	
Flow : Break	701	psi	
Tensile Elongation ²			ASTM D412
Across Flow : Break	470	%	
Flow : Break	450	%	
Tear Strength ²			ASTM D624
Across Flow	125	lbf/in	
Flow	122	lbf/in	
Compression Set ³			ASTM D395B
73°F, 22 hr	39	%	
158°F, 22 hr	80	%	

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Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec	35		
Shore A, 1 sec, Injection Molded ⁴	43		
Shore A, 5 sec, Injection Molded ⁴	40		

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	2.0 to 4.0	hr
Rear Temperature	280 to 320	°F
Middle Temperature	360 to 390	°F
Front Temperature	360 to 390	°F
Nozzle Temperature	380 to 410	°F
Processing (Melt) Temp	350 to 390	°F
Mold Temperature	40 to 90	°F
Injection Pressure	200 to 800	psi
Back Pressure	25.0 to 125	psi
Screw Speed	50 to 100	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

⁴ Aged for 48 hr