+135-3858-6433 (GuangDong)
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TEKNOR APEX

Monprene® OM-12235-01

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene OM-12235-01, available in NAT and colors, is designed for overmolding applications like grips and anti-skid parts for consumer and industrial products. Monprene OM-12235-01 is a low hardness, low density, UV stabilized, opaque grade that exhibits excellent adhesion to PC, ABS, and PC/ABS and is suitable for co-extrusion, extrusion, multi-injection, or injection molding.

General

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

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.940		ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.1 kg)	0.50	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress [2]			ASTM D412
Across Flow : 100% Strain	104	psi	
Flow : 100% Strain	122	psi	
Tensile Stress [2]			ASTM D412
Across Flow : 300% Strain	205	psi	
Flow : 300% Strain	254	psi	
Tensile Strength [2]			ASTM D412
Across Flow : Break	474	psi	
Flow : Break	400	psi	
Tensile Elongation [2]			ASTM D412
Across Flow : Break	550	%	
Flow : Break	460	%	
Tear Strength [2]			ASTM D624
Across Flow	79.0	lbf/in	
Flow	66.0	lbf/in	
Compression Set [3]			ASTM D395B
73°F, 22 hr	17	%	
158°F, 22 hr	61	%	

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Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	38		
Shore A, 5 sec, Injection Molded	35		

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 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	Moderate-Fast	
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.

Extrusion	Nominal Value	Unit
Drying Temperature	140	°F
Drying Time	2.0 to 4.0	hr
Cylinder Zone 1 Temp.	280 to 300	°F
Cylinder Zone 2 Temp.	300 to 320	°F
Cylinder Zone 3 Temp.	320 to 360	°F
Cylinder Zone 4 Temp.	320 to 360	°F
Cylinder Zone 5 Temp.	320 to 360	°F
Die Temperature	320 to 360	°F

Notes

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

[2] Die C, 20 in/min

[3] Type 1