+135-3858-6433 (GuangDong)
+188-1699-6168 (ShangHai)
+852-6957-5415 (HongKong)

TEKNOR APEX

Monprene® OM-12226

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene OM-12226 is a specialty thermoplastic elastomer, available in NAT and colors, designed for overmolding and co-extrusion applications like grips and anti-skid parts for consumer and industrial products. Monprene OM-12226 is a low hardness, low 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	• Abrasion Resistant • Bondability • Chemical Resistant • Chemically Coupled • Good Adhesion • Good Colorability • Good Flexibility	• Good Processability • Good Toughness • Good Weather Resistance • High Elasticity • Low Density • Low Hardness • Low Specific Gravity	• Lubricated • Medium Flow • Slip • Soft • Without Fillers
Uses	• Consumer Applications • Flexible Grips • Gaskets • Handles	• Industrial Applications • Knobs • Overmolding • Soft Touch Applications	• Sporting Goods • Writing Instruments
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• 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	0.900		ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	12	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress [2]			ASTM D412
Across Flow : 100% Strain	78.0	psi	
Flow : 100% Strain	98.0	psi	
Tensile Stress [2]			ASTM D412
Across Flow : 300% Strain	179	psi	
Flow : 300% Strain	230	psi	
Tensile Strength [2]			ASTM D412
Across Flow : Break	990	psi	
Flow : Break	925	psi	
Tensile Elongation [2]			ASTM D412
Across Flow : Break	710	%	
Flow : Break	700	%	
Tear Strength [2]			ASTM D624
Across Flow	87.0	lbf/in	
Flow	84.0	lbf/in	
Compression Set [3] (73°F, 22 hr)	12	%	ASTM D395B

+135-3858-6433 (GuangDong)
+188-1699-6168 (ShangHai)
+852-6957-5415 (HongKong)

Monprene® OM-12226

Teknor Apex Company - Thermoplastic Elastomer

Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	29		
Shore A, 5 sec, Injection Molded	26		

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 100	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

Extrusion Notes

Screw Speed: 30 to 100 rpm

Notes

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

[2] Die C, 20 in/min

[3] Type 1