+135-3858-6433 (GuangDong)
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TEKNOR APEX

Monprene® OM-10255

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene OM-10255 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-10255 is a medium hardness, medium density, RoHS compliant grade that exhibits excellent adhesion to PC, ABS, and PC/ABS. This grade is suitable for both injection molding and extrusion.

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	• Light Stabilized • Medium Density • Medium Flow • Medium Hardness	• Slip • Without Fillers
Uses	• Consumer Applications • Handles	• Overmolding • Sporting Goods	• Toothbrush Handles • Writing Instruments
Agency Ratings	• UL 94		
RoHS Compliance	• RoHS Compliant		
UL File Number	• QMFZ2.E54709		
Appearance	• Colors Available	• Natural Color	• Opaque
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.00		ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	15	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	240	psi	
Tensile Stress [2]			ASTM D412
Across Flow : 300% Strain	421	psi	
Flow : 300% Strain	474	psi	
Tensile Strength [2]			ASTM D412
Across Flow : Break	823	psi	
Flow : Break	851	psi	
Tensile Elongation [2]			ASTM D412
Across Flow : Break	550	%	
Flow : Break	540	%	
Compression Set [3]			ASTM D395B
73°F, 22 hr	42	%	
158°F, 22 hr	91	%	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded [4]	45		
Shore A, 5 sec, Injection Molded [5]	55		

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Thermal	Nominal Value	Unit	Test Method
RTI Elec	122	°F	UL 746B
RTI Imp	122	°F	UL 746B
RTI Str	122	°F	UL 746B
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (0.04 to 0.05 in, All Colors)	HB		UL 94
Additional Information	**Nominal Value**	**Unit**	
Adhesion Strength - Cohesive Failure	51	N	
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.

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
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

[4] Aged for 0 hr at 73°F

[5] Aged for 48 hr at 73°F