



Monprene® OM-12248

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene OM-12248 is designed for overmolding applications like grips and anti-skid parts for consumer products. Monprene OM-12248 is a low density, medium hardness, 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	• Good Processability • Low Density • Low Specific Gravity • Lubricated	• Medium Flow • Medium Hardness • Slip • Without Fillers
Uses	• Appliances • Bonding • Cell Phones • Flexible Grips	• Handles • Knobs • Overmolding • Power/Other Tools	• Sporting Goods • Writing Instruments
RoHS Compliance	• RoHS Compliant		
Appearance	• Black • Colors Available	• Natural Color • Opaque	
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.960		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	252	psi	
Flow : 100% Strain	290	psi	
Tensile Stress ²			ASTM D412
Across Flow : 300% Strain	463	psi	
Flow : 300% Strain	515	psi	
Tensile Strength ²			ASTM D412
Across Flow : Break	920	psi	
Flow : Break	921	psi	
Tensile Elongation ²			ASTM D412
Across Flow : Break	580	%	
Flow : Break	620	%	
Tear Strength ²			ASTM D624
Across Flow	170	lbf/in	
Flow	179	lbf/in	
Compression Set ³ (73°F, 22 hr)	30	%	ASTM D395B
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	51		
Shore A, 5 sec, Injection Molded	48		

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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	320 to 392	°F
Middle Temperature	338 to 410	°F
Front Temperature	356 to 410	°F
Nozzle Temperature	356 to 419	°F
Processing (Melt) Temp	356 to 419	°F
Mold Temperature	50 to 95	°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