

Monprene® OM-12248

Thermoplastic Elastomer

Teknor Apex Company

Message:

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 grade that exhibits excellent adhesion to PC, ABS, and PC/ABS.

General Information			
Features	Low Specific Gravity		
	Without Fillers		
	Low density		
	smoothness		
	Medium liquidity		
	Lubrication		
	Medium hardness		
Uses	Handle		
	overmolding		
	Electrical appliances		
	Power/other tools		
	Soft handle		
	Mobile phone		
	Sporting goods		
	Stationery		
	Knob		
	Dental application field		
	Toothbrush handle		
	Bonding		
Appearance	Opacity		
Forms	Particle		
Processing Method	Extrusion		
	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.958	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	5.0	g/10 min	ASTM D1238
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 second, injection molding	51		ASTM D2240

Shore A, 5 seconds, injection molding	48		ASTM D2240
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412
Transverse flow: 100% strain ¹	1.74	MPa	ASTM D412
Flow: 100% strain ²	2.00	MPa	ASTM D412
Transverse flow: 300% strain ³	3.19	MPa	ASTM D412
Flow: 300% strain ⁴	3.55	MPa	ASTM D412
Tensile Strength ⁵			ASTM D412
Transverse flow: Fracture	6.34	MPa	ASTM D412
Flow: Fracture	6.35	MPa	ASTM D412
Tensile Elongation ⁶			ASTM D412
Transverse flow: Fracture	580	%	ASTM D412
Flow: Fracture	620	%	ASTM D412
Tear Strength ⁷			ASTM D624
Transverse flow	29.8	kN/m	ASTM D624
Flow	31.3	kN/m	ASTM D624
Compression Set ⁸ (23°C, 22 hr)	30	%	ASTM D395B
Additional Information	Nominal Value		
Adhesion to ABS			
Adhesion to PC			
Adhesion to PC/ABS			
Injection	Nominal Value	Unit	
Drying Temperature	60.0	°C	
Drying Time	2.0 - 4.0	hr	
Rear Temperature	138 - 188	°C	
Middle Temperature	154 - 199	°C	
Front Temperature	154 - 216	°C	
Nozzle Temperature	154 - 221	°C	
Processing (Melt) Temp	166 - 221	°C	
Mold Temperature	10.0 - 32.2	°C	
Injection Pressure	1.38 - 5.52	MPa	
Back Pressure	0.172 - 0.862	MPa	
Screw Speed	50 - 100	rpm	
Cushion	3.81 - 25.4	mm	
Injection instructions			
潮湿会使材料降解.建议进行干燥处理.可以把材料放入除湿干燥机,在140°F的温度下干燥2-4小时.			
Extrusion	Nominal Value	Unit	
Cylinder Zone 1 Temp.	138 - 149	°C	
Cylinder Zone 2 Temp.	149 - 160	°C	
Cylinder Zone 3 Temp.	160 - 182	°C	
Cylinder Zone 5 Temp.	171 - 193	°C	
Die Temperature	182 - 204	°C	

NOTE	
1.	Mouth die C, 510mm/min
2.	Mouth die C, 510mm/min
3.	C mold, 510mm/min
4.	C mold, 510mm/min
5.	C mold, 510mm/min
6.	Mouth die C, 510mm/min
7.	C mold, 510mm/min
8.	Type 1

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