

# Monprene® OM-10185

Thermoplastic Elastomer

Teknor Apex Company

## Message:

Monprene® OM-10185 is a thermoplastic elastomer (TPE) material. This product is available in North America, Africa and the Middle East, Latin America, Europe or Asia Pacific. The processing method is extrusion or injection molding.

Monprene® The main features of the OM-10185 are:

ROHS certification

Good processability

Strong adhesion

high hardness

Wear-resistant

Typical application areas include:

Handle

engineering/industrial accessories

Electrical/electronic applications

electrical appliances

Tools

## General Information

Features	Low Specific Gravity Low density smoothness Light stabilization Workability, good Adhesiveness Good formability Good processing stability Good liquidity Good color stability Good coloring Good wear resistance Medium liquidity Good demoulding performance High hardness
Uses	Handle overmolding Electrical appliances Power/other tools Soft handle Mobile phone Sporting goods Stationery

Knob  
 Dental application field  
 Toothbrush handle  
 Bonding

RoHS Compliance	RoHS compliance
Appearance	Opacity Available colors Natural color
Forms	Particle
Processing Method	Extrusion Injection molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.938	g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	7.0	g/10 min	ASTM D1238
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 second, injection molding	87		ASTM D2240
Shore A, 5 seconds, injection molding	85		ASTM D2240
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress <sup>1</sup>			ASTM D412
Transverse flow: 100% strain	5.28	MPa	ASTM D412
Flow: 100% strain	8.31	MPa	ASTM D412
Transverse flow: 300% strain	6.79	MPa	ASTM D412
Tensile Strength <sup>2</sup>			ASTM D412
Transverse flow: Fracture	10.2	MPa	ASTM D412
Flow: Fracture	10.2	MPa	ASTM D412
Tensile Elongation <sup>3</sup>			ASTM D412
Transverse flow: Fracture	560	%	ASTM D412
Flow: Fracture	230	%	ASTM D412
Tear Strength <sup>4</sup>			ASTM D624
Transverse flow	63.4	kN/m	ASTM D624
Flow	54.6	kN/m	ASTM D624
Compression Set <sup>5</sup>			ASTM D395B
23°C, 22 hr	22	%	ASTM D395B
70°C, 22 hr	94	%	ASTM D395B
Additional Information	Nominal Value		
Adhesion to Nylon			
Legal statement			

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Injection	Nominal Value	Unit
Drying Temperature	60	°C
Drying Time	2.0 - 4.0	hr
Rear Temperature	204 - 238	°C
Middle Temperature	204 - 238	°C
Front Temperature	204 - 238	°C
Nozzle Temperature	204 - 238	°C
Processing (Melt) Temp	204 - 238	°C
Mold Temperature	16 - 32	°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

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.

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	193 - 238	°C
Cylinder Zone 2 Temp.	193 - 238	°C
Cylinder Zone 3 Temp.	193 - 238	°C
Cylinder Zone 4 Temp.	193 - 238	°C
Cylinder Zone 5 Temp.	193 - 238	°C
Die Temperature	193 - 238	°C

#### NOTE

- |    |                   |
|----|-------------------|
| 1. | C mold, 510mm/min |
| 2. | C mold, 510mm/min |
| 3. | C mold, 510mm/min |
| 4. | C mold, 510mm/min |
| 5. | Type 1            |

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#### Recommended distributors for this material

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