

# Monprene® CP-37180

Teknor Apex Company - Thermoplastic Elastomer

Friday, June 30, 2017

## General Information

### Product Description

Monprene CP-37180 is a general purpose thermoplastic elastomer designed for a variety of consumer product applications requiring a soft, rubber-like feel. Monprene CP-37180 is a lubricated, high hardness grade suitable for both injection molding and extrusion.

### General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Filled • High Density • High Hardness	• High Specific Gravity • Lubricated • Medium Flow	• Slip
Uses	• Consumer Applications • Gaskets • Handles	• Kitchenware • Safety Equipment • Sporting Goods	• Toothbrush Handles • Writing Instruments
RoHS Compliance	• RoHS Compliant		
Appearance	• Opaque		
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

## ASTM & ISO Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.14		ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	16	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress <sup>2</sup>			ASTM D412
Across Flow : 100% Strain	467	psi	
Flow : 100% Strain	606	psi	
Tensile Stress <sup>2</sup>			ASTM D412
Across Flow : 300% Strain	467	psi	
Flow : 300% Strain	745	psi	
Tensile Strength <sup>2</sup>			ASTM D412
Across Flow : Break	1640	psi	
Flow : Break	1420	psi	
Tensile Elongation <sup>2</sup>			ASTM D412
Across Flow : Break	760	%	
Flow : Break	680	%	
Tear Strength <sup>2</sup>			ASTM D624
Across Flow	221	lbf/in	
Flow	236	lbf/in	
Compression Set <sup>3</sup>			ASTM D395B
73°F, 22 hr	36	%	
158°F, 22 hr	68	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	82		
Shore A, 5 sec, Injection Molded	80		



Revision Date: 6/1/2016

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### Legal Statement

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### Processing Information

Injection	Nominal Value	Unit
Rear Temperature	360 to 450	°F
Middle Temperature	370 to 460	°F
Front Temperature	380 to 470	°F
Nozzle Temperature	390 to 480	°F
Processing (Melt) Temp	390 to 480	°F
Mold Temperature	95 to 120	°F
Injection Pressure	200 to 800	psi
Injection Rate	Fast	
Back Pressure	25.0 to 100	psi
Screw Speed	50 to 100	rpm
Cushion	0.150 to 1.00	in

### Injection Notes

Drying is not necessary. However, if moisture is a problem, dry the pellets for 2 to 4 hours at 150°F (65°C).

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	360 to 450	°F
Cylinder Zone 2 Temp.	370 to 460	°F
Cylinder Zone 3 Temp.	380 to 470	°F
Cylinder Zone 4 Temp.	390 to 480	°F
Cylinder Zone 5 Temp.	390 to 480	°F
Die Temperature	390 to 480	°F

### Extrusion Notes

Screw Speed: 30 to 100 rpm

### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> Die C, 20 in/min

<sup>3</sup> Type 1

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