

# Monprene® CP-17280

Teknor Apex Company - Thermoplastic Elastomer

Tuesday, September 02, 2014

## General Information

### General

Generic Name	• Thermoplastic Elastomer (TPE)		
Material Status	• Experimental: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Uses	• Closures • Consumer Applications • Gaskets • Handles	• Kitchenware • Medical/Healthcare Applications • Packaging • Safety Equipment	• Sporting Goods • Toothbrush Handles • Tubing • Writing Instruments
Appearance	• Opaque		
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

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

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.05	g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	20	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress (100% Strain)	3.80	MPa	ASTM D412
Tensile Stress (300% Strain)	4.80	MPa	ASTM D412
Tensile Strength (Break)	8.50	MPa	ASTM D412
Tensile Elongation (Break)	650	%	ASTM D412
Compression Set			ASTM D395
23°C, 22 hr	36	%	
70°C, 22 hr	62	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A, 5 sec)	80		ASTM D2240
Fill Analysis	Nominal Value	Unit	Test Method
Apparent Viscosity (200°C, 206 sec <sup>-1</sup> )	113	Pa·s	ASTM D3835

## Processing Information

Injection	Nominal Value	Unit
Rear Temperature	182 to 232	°C
Middle Temperature	188 to 238	°C
Front Temperature	193 to 243	°C
Nozzle Temperature	199 to 249	°C
Processing (Melt) Temp	199 to 249	°C
Mold Temperature	35.0 to 48.9	°C
Injection Pressure	1.38 to 5.52	MPa
Injection Rate	Fast	
Back Pressure	0.172 to 0.689	MPa
Screw Speed	50 to 100	rpm

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<b>Injection</b>	<b>Nominal Value</b>	<b>Unit</b>
Cushion	3.81 to 25.4	mm

### 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).

<b>Extrusion</b>	<b>Nominal Value</b>	<b>Unit</b>
Cylinder Zone 1 Temp.	182 to 232	°C
Cylinder Zone 2 Temp.	188 to 238	°C
Cylinder Zone 3 Temp.	193 to 243	°C
Cylinder Zone 5 Temp.	199 to 249	°C
Die Temperature	199 to 249	°C

### Extrusion Notes

Screw Speed: 30 to 100 rpm

### Notes

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