



# Monprene® RG-20180 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

## General Information

### Product Description

The Monprene RG-20100 series is a group of high performance thermoplastic elastomers specifically designed for extruded regulated applications including food contact, toys, and children's products. Monprene RG-20180 is a low density, high hardness grade that complies with various US FDA and European regulations and directives for food contact and toy safety and is suitable for extrusion. Please contact Teknor Apex for a regulatory compliance letter.

### General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Europe	• Latin America • North America	
Features	• BPA Free • Food Contact Acceptable • Good Adhesion • Good Colorability • Good Processability	• High Hardness • Low Density • Low Flow • Low Specific Gravity • Lubricated	• No Animal Derived Components • Slip • Without Fillers
Uses	• Consumer Applications • Cosmetic Packaging • Food Containers • Food Packaging	• Food Service Applications • Kitchenware • Lids • Non-specific Food Applications	• Rubber Replacement • Toys
Agency Ratings	• EU Food Contact	• FDA Food Contact	
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Natural Color	• Translucent
Forms	• Pellets		
Processing Method	• Extrusion		

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

Physical	Nominal Value	Unit	Test Method
Density	0.888	g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	3.0	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress <sup>2</sup>			ISO 37
Across Flow : 100% Strain	406	psi	
Flow : 100% Strain	870	psi	
Tensile Stress <sup>2</sup>			ISO 37
Across Flow : Break	1740	psi	
Flow : Break	1020	psi	
Tensile Elongation <sup>2</sup>			ISO 37
Across Flow : Break	780	%	
Flow : Break	250	%	
Compression Set <sup>3</sup>			ISO 815
73°F, 22 hr	23	%	
158°F, 22 hr	35	%	
Hardness	Nominal Value	Unit	Test Method
Shore Hardness (Shore A, 5 sec)	80		ISO 868
Fill Analysis	Nominal Value	Unit	Test Method
Apparent Viscosity (392°F, 206 sec <sup>-1</sup> )	303	Pa·s	ASTM D3835

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## Processing Information

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	300 to 320	°F
Cylinder Zone 2 Temp.	320 to 400	°F
Cylinder Zone 3 Temp.	340 to 420	°F
Cylinder Zone 4 Temp.	360 to 440	°F
Cylinder Zone 5 Temp.	360 to 441	°F
Die Temperature	360 to 440	°F

## Extrusion Notes

Screw Speed: 30 to 100 rpm

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

## Notes

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

<sup>2</sup> Type 1, 20 in/min

<sup>3</sup> Type A