



# Monprene® RG-55482

Teknor Apex Company - Thermoplastic Elastomer

## General Information

### Product Description

Monprene RG-55482 is a high performance thermoplastic elastomer, available in NAT and colors, specifically designed for regulated applications including food contact packaging products. Monprene RG-55482 is a high hardness, low density grade with excellent organoleptic properties and is suitable for injection molding and extrusion. Monprene RG-55482 complies with various US FDA and European regulations and directives for food contact. Please contact Teknor Apex for a regulatory compliance letter.

### General

Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Bondability • Food Contact Acceptable • Good Adhesion • Good Colorability	• Good Melt Strength • Good Organoleptic Properties • Good Processability • Halogen Free	• High Hardness • Low Compression Set • Low Density
Uses	• Closures • Consumer Applications • Cookware Handles • Cups • Fluid Handling	• Food Containers • Food Packaging • Food Service Applications • Gaskets • Kitchenware	• Lids • Non-specific Food Applications • Overmolding • Toys
Agency Ratings	• EU Food Contact	• FDA Food Contact	
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Natural Color	
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

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

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.912		ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	2.0	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress <sup>2, 3</sup> (100% Strain)	760	psi	ASTM D412
Tensile Strength (Break)	1080	psi	ASTM D412
Tensile Elongation <sup>2, 3</sup> (Break)	360	%	ASTM D412
Tear Strength <sup>2, 3</sup>	260	lbf/in	ASTM D624
Compression Set <sup>4, 3</sup>			ASTM D395B
73°F, 22 hr	28	%	
158°F, 22 hr	73	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness <sup>3</sup>			ASTM D2240
Shore A, 1 sec, Injection Molded	84		
Shore A, 5 sec, Injection Molded	82		

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### Processing Information

Injection	Nominal Value	Unit
Rear Temperature	320 to 360	°F
Middle Temperature	330 to 370	°F
Front Temperature	340 to 380	°F
Nozzle Temperature	350 to 390	°F
Processing (Melt) Temp	350 to 390	°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.	340 to 380	°F
Cylinder Zone 2 Temp.	350 to 385	°F
Cylinder Zone 3 Temp.	350 to 385	°F
Cylinder Zone 4 Temp.	360 to 390	°F
Cylinder Zone 5 Temp.	360 to 390	°F
Die Temperature	370 to 395	°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> TBD

<sup>4</sup> Type 1