



# Monprene® RG-18277

Teknor Apex Company - Thermoplastic Elastomer

## General Information

### Product Description

Monprene RG-18277 is a high performance thermoplastic elastomer, available in NAT and colors, designed for regulated applications including food contact, toys, and children's products. Monprene RG-18277 is a high hardness, low density grade with excellent adhesion to PP and complies with various US FDA regulations and EU directives for food contact. This grade is suitable for injection molding. Please contact Teknor Apex for a regulatory compliance letter.

### General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Good Adhesion • Good Colorability • Good Flexibility • Good Flow	• Good Processability • Good Tensile Strength • Good Toughness • Halogen Free	• High Hardness • Low Density • Low Specific Gravity • Without Fillers
Uses	• Closures • Consumer Applications • Gaskets • Handles	• Kitchenware • Packaging • Safety Equipment • Sporting Goods	• Toothbrush Handles • Tubing • Writing Instruments
RoHS Compliance	• RoHS Compliant		
Appearance	• Translucent		
Forms	• Pellets		
Processing Method	• Injection Molding		

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

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.892		ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	10	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress <sup>2</sup> (100% Strain)	500	psi	ASTM D412
Tensile Stress <sup>2</sup> (300% Strain)	670	psi	ASTM D412
Tensile Strength <sup>2</sup> (Break)	2260	psi	ASTM D412
Tensile Elongation <sup>2</sup> (Break)	750	%	ASTM D412
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec	79		
Shore A, 5 sec	77		

## Processing Information

Injection	Nominal Value	Unit
Rear Temperature	248 to 320	°F

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Injection	Nominal Value	Unit
Middle Temperature	320 to 446	°F
Front Temperature	356 to 446	°F
Nozzle Temperature	356 to 446	°F
Processing (Melt) Temp	356 to 446	°F
Mold Temperature	59 to 122	°F
Injection Rate	Fast	
Back Pressure	72.5 to 218	psi
Screw Speed	50 to 100	rpm
Cushion	0.118 to 0.787	in

### Injection Notes

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

Low holding pressure is recommended.

### Notes

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

<sup>2</sup> 20 in/min