

# Monprene® RG-18280 (PRELIMINARY DATA)

Thermoplastic Elastomer

Teknor Apex Company

Message:

The Monprene RG-18200 series is a group of unfilled high performance thermoplastic elastomers with high flow specifically designed for EU injection molded regulated applications including food contact, toys, and children's products. Monprene RG-18280 is a low density, medium hardness grade that complies with various US FDA and European regulations and directives for food contact and toy safety and is suitable for injection molding. Please contact Teknor Apex for a regulatory compliance letter.

General Information	
Features	Low Specific Gravity
	Without Fillers
	Low density
	Workability, good
	Good coloring
	Good adhesion
	Lubrication
	Compliance of Food Exposure
	Medium hardness
Uses	Cosmetic Packaging
	Handle
	Kitchen utensils
	Washer
	Non-specific food applications
	Cover
	Food packaging
	Food service sector
	Food container
	Shell
	Toys
	Rubber substitution
	Consumer goods application field
	Toothbrush handle
Agency Ratings	FDA Food Exposure, Not Rated
	European food contact, not rated
RoHS Compliance	RoHS compliance
Appearance	Translucent
	Available colors

Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density	0.890	g/cm <sup>3</sup>	ISO 1183
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A, 5 sec)	80		ISO 868
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ISO 37
100% strain	3.85	MPa	ISO 37
300% strain	4.79	MPa	ISO 37
Tensile Strength (Break)	6.87	MPa	ISO 37
Tensile Elongation (Break)	550	%	ISO 37
Compression Set			ISO 815
23°C, 22 hr	41	%	ISO 815
70°C, 22 hr	62	%	ISO 815
Fill Analysis	Nominal Value	Unit	Test Method
Apparent Viscosity (200°C, 206 sec <sup>-1</sup> )	103	Pa·s	ISO 11443

#### Legal statement

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Injection	Nominal Value	Unit
Rear Temperature	120 - 160	°C
Middle Temperature	160 - 230	°C
Front Temperature	180 - 230	°C
Nozzle Temperature	180 - 230	°C
Processing (Melt) Temp	180 - 230	°C
Mold Temperature	15 - 50	°C
Injection Rate	Fast	
Back Pressure	0.500 - 1.50	MPa
Screw Speed	50 - 100	rpm
Cushion	3.00 - 20.0	mm

#### Injection instructions

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

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