

Monprene® RG-10180 X (PRELIMINARY DATA)

Thermoplastic Elastomer

Teknor Apex Company

Message:

Monprene RG-10180 is specifically designed for regulated applications including food contact, toys, and children's products. This grade is suitable for injection molding. Monprene RG-10180 complies with various US FDA and European regulations and directives for food contact and toy safety. Please contact Teknor Apex for a regulatory compliance letter.

General Information			
Features	Low Specific Gravity		
	Without Fillers		
	Low density		
	smoothness		
	Medium liquidity		
	Lubrication		
	Compliance of Food Exposure		
	BPA-free		
	No kinetic components		
	High hardness		
Uses	Cosmetic Packaging		
	Kitchen utensils		
	Non-specific food applications		
	Cover		
	Food packaging		
	Food service sector		
	Food container		
	Toys		
Agency Ratings	FDA Food Exposure, Not Rated		
	European food contact, not rated		
Appearance	Translucent		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.888	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	6.5	g/10 min	ASTM D1238
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A, 5 sec)	80		ISO 868

Elastomers	Nominal Value	Unit	Test Method
Tensile Stress - Across Flow (100% Strain)	3.03	MPa	ISO 37
Tensile Stress - Across Flow (Break)	15.3	MPa	ISO 37
Tensile Elongation - Across Flow (Break)	830	%	ISO 37
Tear Strength ¹			ISO 34-1
Transverse flow	39	kN/m	ISO 34-1
Flow	47	kN/m	ISO 34-1
Compression Set ² (70°C, 22 hr)	37	%	ISO 815
Fill Analysis	Nominal Value	Unit	Test Method
Apparent Viscosity (200°C, 206 sec ⁻¹)	269	Pa·s	ASTM D3835
Legal statement			

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Injection	Nominal Value	Unit
Rear Temperature	160 - 177	°C
Middle Temperature	182 - 204	°C
Front Temperature	193 - 216	°C
Nozzle Temperature	182 - 227	°C
Processing (Melt) Temp	182 - 227	°C
Mold Temperature	26.7 - 48.9	°C
Injection Rate	Moderate-Fast	
Back Pressure	0.172 - 0.689	MPa
Screw Speed	50 - 100	rpm
Cushion	3.81 - 12.7	mm

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

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| 1. | Method B, right-angle specimen
(without cut) |
| 2. | Type a |

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