

Monprene® RG-24465 (PRELIMINARY DATA)

Thermoplastic Elastomer

Teknor Apex Company

Message:

Monprene RG-24465 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-24465 is a medium hardness, low density, unfilled, lubricated 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 and extrusion. Please contact Teknor Apex for a regulatory compliance letter.

General Information			
Features	Low Specific Gravity		
	Without Fillers		
	Low density		
	smoothness		
	Low liquidity		
	Lubrication		
	Medium hardness		
Uses	Safety equipment		
	Kitchen utensils		
	Washer		
	Non-specific food applications		
	Pipe		
	Pipe fittings		
	Consumer goods application field		
Agency Ratings	FDA Food Exposure, Not Rated		
	European food contact, not rated		
RoHS Compliance	RoHS compliance		
Appearance	Available colors		
	Natural color		
Forms	Particle		
Processing Method	Extrusion		
	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.888	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	0.40	g/10 min	ASTM D1238

Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shaw A	67		ASTM D2240
Shaw A, 5 seconds	64		ASTM D2240
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ¹			ASTM D412
Transverse flow: 100% strain	2.07	MPa	ASTM D412
Flow: 100% strain	2.76	MPa	ASTM D412
Transverse flow: 300% strain	2.80	MPa	ASTM D412
Flow: 300% strain	3.45	MPa	ASTM D412
Tensile Strength ²			ASTM D412
Transverse flow: Fracture	10.3	MPa	ASTM D412
Flow: Fracture	5.52	MPa	ASTM D412
Tensile Elongation ³			ASTM D412
Transverse flow: Fracture	820	%	ASTM D412
Flow: Fracture	620	%	ASTM D412
Tear Strength ⁴			ASTM D624
Transverse flow	36.8	kN/m	ASTM D624
Flow	29.8	kN/m	ASTM D624
Compression Set ⁵			ASTM D395B
23°C, 22 hr	25	%	ASTM D395B
70°C, 22 hr	45	%	ASTM D395B

Legal statement

The information and recommendations contained in this bulletin are, to the best of our knowledge, accurate and reliable but no guarantee of their accuracy is made. All products are sold upon condition that purchasers shall make their own tests to determine the suitability of such products for their particular purposes and uses and purchaser assumes all risks and liability for the results of use of the products, including use in accordance with seller's recommendations. Nothing in this bulletin constitutes permission or a recommendation to practice or use any invention covered by any patent owned by this company or others. There is no warranty of merchantability and there are no other warranties for the products described. For detailed Product Stewardship information, please contact us. Any product of Teknor Apex, including product names, shall not be used or tested in medical or food contact applications without the prior written acknowledgement of Teknor Apex as to the intended use. Please note that some products may not be available in one or more countries.

Injection	Nominal Value	Unit
Rear Temperature	182 - 232	°C
Middle Temperature	188 - 238	°C
Front Temperature	193 - 243	°C
Nozzle Temperature	199 - 249	°C
Processing (Melt) Temp	199 - 249	°C
Mold Temperature	35 - 49	°C
Injection Pressure	1.38 - 5.52	MPa
Injection Rate	Fast	
Back Pressure	0.172 - 0.689	MPa
Screw Speed	50 - 100	rpm
Cushion	3.81 - 25.4	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).

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	182 - 232	°C
Cylinder Zone 2 Temp.	188 - 238	°C
Cylinder Zone 3 Temp.	193 - 243	°C
Cylinder Zone 4 Temp.	193 - 243	°C
Cylinder Zone 5 Temp.	199 - 249	°C
Die Temperature	199 - 249	°C

Extrusion instructions

Screw Speed: 30 to 100 rpm

NOTE

- | | |
|----|-------------------|
| 1. | C mold, 510mm/min |
| 2. | C mold, 510mm/min |
| 3. | C mold, 510mm/min |
| 4. | C mold, 510mm/min |
| 5. | Type 1 |

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