

Monprene® RG-13271

Thermoplastic Elastomer

Teknor Apex Company

Message:

Monprene RG-13271 is specifically designed for food contact applications and other regulated markets such as children's and infants products. Every ingredient used to formulate Monprene RG-13271 is either "generally recognized as safe" (GRAS), prior sanctioned, subject to an effective Food Contact Notification (FCN), subject to a Threshold of Regulation (TOR) or identified in one or more sections of Title 21 of the code of Federal Regulations published by the US FDA. This product is suitable for injection molding.

General Information			
Features	smoothness		
	Medium liquidity		
	Compliance of Food Exposure		
	Fill		
	Medium density		
	Medium hardness		
Uses	Safety equipment		
	Handle		
	Kitchen utensils		
	Washer		
	Pipe fittings		
	Sporting goods		
	Stationery		
	Consumer goods application field		
	Toothbrush handle		
Appearance	Opacity		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.01	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	4.0	g/10 min	ASTM D1238
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 second, injection molding	73		ASTM D2240
Shore A, 5 seconds, injection molding	71		ASTM D2240
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412
Transverse flow: 100% strain ¹	2.16	MPa	ASTM D412

Flow: 100% strain ²	3.36	MPa	ASTM D412
Transverse flow: 300% strain ³	3.07	MPa	ASTM D412
Flow: 300% strain ⁴	4.47	MPa	ASTM D412
Tensile Strength ⁵			ASTM D412
Transverse flow: Fracture	10.8	MPa	ASTM D412
Flow: Fracture	6.85	MPa	ASTM D412
Tensile Elongation ⁶			ASTM D412
Transverse flow: Fracture	790	%	ASTM D412
Flow: Fracture	550	%	ASTM D412
Tear Strength ⁷			ASTM D624
Transverse flow	32.4	kN/m	ASTM D624
Flow	30.1	kN/m	ASTM D624
Compression Set ⁸			ASTM D395B
23°C, 22 hr	22	%	ASTM D395B
70°C, 22 hr	44	%	ASTM D395B
Injection	Nominal Value	Unit	
Rear Temperature	171 - 193	°C	
Middle Temperature	177 - 199	°C	
Front Temperature	182 - 204	°C	
Nozzle Temperature	188 - 210	°C	
Processing (Melt) Temp	188 - 210	°C	
Mold Temperature	25.0 - 65.6	°C	
Injection Pressure	1.38 - 6.89	MPa	
Injection Rate	Moderate-Fast		
Back Pressure	0.172 - 0.345	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.	166 - 188	°C	
Cylinder Zone 2 Temp.	171 - 193	°C	
Cylinder Zone 3 Temp.	177 - 199	°C	
Cylinder Zone 5 Temp.	182 - 204	°C	
Die Temperature	190 - 210	°C	
Extrusion instructions			
螺杆转速30 - 100 rpm			
NOTE			
1.	Mouth die C, 510mm/min		
2.	Mouth die C, 510mm/min		
3.	C mold, 510mm/min		
4.	C mold, 510mm/min		

5.	C mold, 510mm/min
6.	Mouth die C, 510mm/min
7.	C mold, 510mm/min
8.	Type 1

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