



Monprene® RG-56234D NAT O.B.

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene® RG-56234D NAT OB is a high performance thermoplastic elastomer designed for regulated applications including food contact packaging products. Monprene® RG-56234D NAT OB is a high hardness, low density, oil-free grade with exceptional organoleptic properties that also provides excellent sealing properties when used in cold-fill cap liner applications including PP closures for carbonated soft drinks. Monprene® 56234D NAT OB complies with various US FDA and European regulations and directives for food contact. 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	• BPA Free • Food Contact Acceptable	• Food Contact Acceptable • Good Flow	• High Hardness • Low Density
Uses	• Caps	• Closures	• Packaging
RoHS Compliance	• RoHS Compliant		
Appearance	• Translucent		
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.920		ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	19	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Strength ²			ASTM D412
Across Flow : Break	1270	psi	
Flow : Break	1240	psi	
Tensile Elongation ²			ASTM D412
Across Flow : Break	630	%	
Flow : Break	630	%	
Compression Set ³ (73°F, 22 hr)	33	%	ASTM D395B
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore D, 1 sec, Injection Molded	35		
Shore D, 5 sec, Injection Molded	34		

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	340 to 380	°F
Middle Temperature	350 to 390	°F

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Injection	Nominal Value	Unit
Front Temperature	360 to 400	°F
Nozzle Temperature	370 to 410	°F
Processing (Melt) Temp	370 to 410	°F
Mold Temperature	77 to 150	°F
Injection Pressure	200 to 1000	psi
Injection Rate	Moderate-Fast	
Back Pressure	25.0 to 50.0	psi
Screw Speed	50 to 100	rpm
Cushion	0.150 to 1.00	in

Injection Notes

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.	330 to 370	°F
Cylinder Zone 2 Temp.	340 to 380	°F
Cylinder Zone 3 Temp.	350 to 390	°F
Cylinder Zone 4 Temp.	360 to 399	°F
Cylinder Zone 5 Temp.	360 to 400	°F
Die Temperature	374 to 410	°F

Extrusion Notes

Screw Speed: 30 to 100 rpm

Notes

¹ Typical properties: these are not to be construed as specifications.

² Die C, 20 in/min

³ Type 1