



Monprene® RG-63450D NAT XRD2 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene RG-63450D is a high performance thermoplastic elastomer used in regulated consumer applications and complies with various US FDA food contact regulations. Monprene RG-63450D is a lubricated, high hardness, medium density, RoHS compliant grade that exhibits excellent bondability to COPE, PBT, PC, ABS, and PC/ABS. This grade is designed for injection and multi-cavity injection molding.

General

Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Bondability • Chemical Resistant • Crack Resistant • Good Colorability • Good Flexibility	• Good Flow • Good Impact Resistance • Good Moldability • Good Scratch Resistance • Good Toughness	• Halogen Free • High Hardness • Low Compression Set • Lubricated • Medium Density
Uses	• Bonding • Consumer Applications • Food Packaging • Food Service Applications	• Gaskets • Kitchenware • Lids • Non-specific Food Applications	• Overmolding • Soft Touch Applications
Agency Ratings	• FDA Food Contact		
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Natural Color	• Opaque
Forms	• Pellets		
Processing Method	• Injection Molding	• Multi Injection Molding	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.11		ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	20	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ² (100% Strain)	1600	psi	ASTM D412
Tensile Strength ² (Break)	2180	psi	ASTM D412
Tensile Elongation ² (Break)	500	%	ASTM D412
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore D, 1 sec, Injection Molded	50		
Shore D, 5 sec, Injection Molded	40		
Additional Information	Nominal Value	Unit	
Adhesion to ABS			
Adhesion to COPE			
Adhesion to PBT			
Adhesion to PC			
Adhesion to PC/ABS			

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Injection	Nominal Value	Unit
Drying Temperature	176	°F
Drying Time	3.0 to 4.0	hr
Rear Temperature	370 to 400	°F
Middle Temperature	390 to 430	°F
Front Temperature	428 to 480	°F
Nozzle Temperature	428 to 480	°F
Processing (Melt) Temp	428 to 480	°F
Mold Temperature	90 to 130	°F
Injection Pressure	200 to 800	psi
Injection Rate	Fast	
Back Pressure	25.0 to 100	psi
Screw Speed	50 to 100	rpm
Cushion	0.150 to 1.00	in

Injection Notes

Drying is strongly suggested to enhance bondability.

Notes

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

² Die C, 20 in/min
