Monprene® RG-63455 NAT XRD1 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

Thursday, April 2, 2026

General Information

Product Description

Monprene RG-63455 NAT XRD1 is a high performance thermoplastic elastomer used in regulated consumer applications and complies with various US FDA food contact regulations. Monprene RG-63455 NAT XRD1 is a lubricated, medium hardness, low density, RoHS compliant grade that exhibits low compression set and excellent bondabiity 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 • Low Compression Set • Low Density • Lubricated • Medium Hardness
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	

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.972		ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	4.0	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength [2] (Break)	920	psi	ASTM D412
Tensile Elongation [2] (Break)	670	%	ASTM D412
Tear Strength [2]	197	lbf/in	ASTM D624
Compression Set [3] (73°F, 22 hr)	16	%	ASTM D395B
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	57		
Shore A, 5 sec, Injection Molded	55		
Additional Information	**Nominal Value**	**Unit**	
Adhesion to ABS			
Adhesion to COPE			
Adhesion to PBT			
Adhesion to PC			
Adhesion to PC/ABS			

Revision Date: 2/16/2025

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Processing Information

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

[3] Type 1

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