



Monprene® R3 CP-15180 NAT XRD1 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

The Monprene® RX CP-15100 series of thermoplastic elastomers (TPEs) is formulated to contain post-consumer recycled (PCR) content, reducing dependency on virgin petroleum-based plastic and contributing towards a circular economy. These high-flow materials, designed for injection molding or overmolding onto polypropylene, perform and process like prime TPE, and are available in a light, natural color. Monprene R3 CP-15180 is a 80 Shore A TPE containing 36% PCR content and is available globally with locally sourced raw materials.

General

Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Recycled Content	• Post-Consumer (PCR), 36%		
Features	• Chemical Resistant	• Good Processability	• High Hardness
	• Good Adhesion	• Good Toughness	• High Tensile Strength
	• Good Colorability	• Halogen Free	• Low Compression Set
	• Good Flexibility	• High Elongation	• Low Density
	• Good Moldability	• High Flow	• Resilient
Uses	• Consumer Applications	• Knobs	• Rubber Replacement
	• Flexible Grips	• Lawn & Garden Equipment	• Soft Touch Applications
	• General Purpose	• Luggage	• Sporting Goods
	• Handles	• Overmolding	• Writing Instruments
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Natural Color	
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.892		ASTM D792
Melt Mass-Flow Rate (MFR) (175°C/2.16 kg)	20	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ²			ASTM D412
Across Flow : 100% Strain	428	psi	
Flow : 100% Strain	505	psi	
Tensile Strength ²			ASTM D412
Across Flow : Break	954	psi	
Flow : Break	1000	psi	
Tensile Elongation ²			ASTM D412
Across Flow : Break	700	%	
Flow : Break	610	%	
Tear Strength ²			ASTM D624
Across Flow	183	lbf/in	
Flow	168	lbf/in	
Compression Set ³			ASTM D395B
73°F, 22 hr	34	%	
158°F, 22 hr	55	%	

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Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	81		
Shore A, 5 sec, Injection Molded	79		

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	311 to 374	°F
Middle Temperature	320 to 392	°F
Front Temperature	320 to 410	°F
Nozzle Temperature	320 to 410	°F
Processing (Melt) Temp	320 to 410	°F
Mold Temperature	60 to 90	°F
Injection Pressure	200 to 800	psi
Injection Rate	Moderate-Fast	

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).

Notes

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

² Die C, 20 in/min

³ Type 1