



Monprene® R4 CP-12160 XRD2 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

The Monprene® RX CP-12100 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 materials are designed for injection molding or overmolding onto polypropylene, perform and process like prime TPE. Monprene R4 CP-12160 XRD2 is a 60 Shore A TPE containing minimum 40% PCR content.

General

Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Recycled Content	• Post-Consumer (PCR), 40%		
Features	• Good Adhesion • Good Colorability • Good Flexibility	• Good Moldability • Good Processability • Halogen Free	• High Elongation • Low Density • Medium Hardness
Uses	• Consumer Applications • Flexible Grips • General Purpose • Handles	• Knobs • Luggage • Overmolding • Rubber Replacement	• Soft Touch Applications • Sporting Goods • Toothbrush Handles • Writing Instruments
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.882		ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	7.0	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ISO 527
Across Flow : 50% Strain	189	psi	
Flow : 50% Strain	218	psi	
Tensile Stress			ISO 527
Across Flow : 100% Strain	218	psi	
Flow : 100% Strain	261	psi	
Tensile Stress			ISO 527
Across Flow : 300% Strain	319	psi	
Flow : 300% Strain	363	psi	
Tensile Strength			ISO 527
Across Flow : Break	1480	psi	
Flow : Break	899	psi	
Tensile Elongation			ISO 527
Across Flow : Break	920	%	
Flow : Break	750	%	
Tear Strength ²			ISO 34-1
Across Flow	88.5	lbf/in	
Flow	85.7	lbf/in	

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Elastomers	Nominal Value	Unit	Test Method
Compression Set			ISO 815
73°F, 70 hr	26	%	
158°F, 24 hr	44	%	
212°F, 24 hr	69	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A, 3 sec, Injection Molded)	62		ASTM D2240

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	320 to 374	°F
Middle Temperature	338 to 392	°F
Front Temperature	356 to 410	°F
Nozzle Temperature	356 to 410	°F
Processing (Melt) Temp	356 to 410	°F
Mold Temperature	68 to 104	°F
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 80 °C.

Notes

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

² Die B