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TEKNOR APEX

Monprene® R3 PC-12172 NAT XRD1 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

The Monprene® RX PC-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 PC-12172 NAT XRD1 is a 72 Shore A TPE containing 35% PCR content.

General

Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Recycled Content	• Post-Consumer (PCR), 35%		
Features	• Chemical Resistant • Good Adhesion • Good Colorability • Good Flexibility • Good Moldability	• Good Processability • Good Toughness • Halogen Free • High Elongation • High Flow	• High Tensile Strength • Low Compression Set • Low Density • Medium Hardness • Resilient
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	• Colors Available	• Natural Color	
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.852		ASTM D792
Melt Mass-Flow Rate (MFR) (150°C/2.16 kg)	> 50	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength [2] (Break)	218	psi	ASTM D412
Tensile Elongation [2] (Break)	200	%	ASTM D412
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore A, 5 sec, Injection Molded)	72		ASTM D2240

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