



Monprene® RG-28163 CLR XRD1 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene RG-28163 CLR XRD1 is a high performance thermoplastic elastomer designed for consumer and industrial applications, including food contact, film, and tubing. Monprene RG-28163 CLR XRD1 is a medium hardness, low density, RoHS compliant grade with excellent adhesion to PP. This grade is suitable for cast film and extrusion. Please contact Teknor Apex for a regulatory compliance letter.

General

Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Chemical Resistant • Good Adhesion • Good Colorability • Good Melt Strength • Good Processability	• Good Toughness • Halogen Free • High Clarity • High Purity • Kink Resistant	• Low Density • Low Specific Gravity • Lubricated • Medium Hardness
Uses	• Clear Sheet • Film	• Food Service Applications • Hose	• Non-specific Food Applications • Tubing
RoHS Compliance	• RoHS Compliant		
Appearance	• Clear/Transparent	• Colors Available	
Forms	• Pellets		
Processing Method	• Cast Film	• Extrusion	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.890		ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	4.5	g/10 min	ASTM D1238
Films	Nominal Value	Unit	Test Method
Oxygen Transmission Rate (Wet)			ASTM F1927
73°F, 40 mil, 35% RH	33.2	cm³/100 in²/24 hr	
73°F, 40 mil, 90% RH	31.7	cm³/100 in²/24 hr	
Water Vapor Transmission Rate			ASTM F1249
1.0 mil, 100°F, 100% RH	3.3	g·mil/100in²/atm/24 hr	
40 mil, 100°F, 100% RH	0.083	g·mil/100in²/atm/24 hr	
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ² (50% Strain)	325	psi	ASTM D412
Tensile Stress ² (100% Strain)	385	psi	ASTM D412
Tensile Stress ² (300% Strain)	615	psi	ASTM D412
Tensile Strength ² (Break)	1720	psi	ASTM D412
Tensile Elongation ² (Break)	630	%	ASTM D412
Tear Strength ²	247	lbf/in	ASTM D624
Compression Set ³			ASTM D395B
73°F, 22 hr	18	%	
158°F, 22 hr	86	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	67		
Shore A, 5 sec, Injection Molded	65		

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Processing Information		
Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	320 to 350	°F
Cylinder Zone 2 Temp.	340 to 375	°F
Cylinder Zone 3 Temp.	360 to 400	°F
Cylinder Zone 4 Temp.	360 to 400	°F
Cylinder Zone 5 Temp.	360 to 410	°F
Die Temperature	350 to 420	°F
Extrusion Notes		
Screw Speed: 30 to 100 rpm.		
Screen Pack Recommendation:		
60/200/200/60 to 60/200/400/400/200/60 mesh size.		

Notes

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

² Die C, 20 in/min

³ Type 1