



Monprene® CP-30120 XRD (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene CP-30120 XRD is a general purpose thermoplastic elastomer designed for a variety of consumer product applications requiring a soft, rubber-like feel. Monprene CP-30120 XRD is a medium density, low hardness grade that exhibits excellent anti-vibration characteristics. This grade is suitable for both injection molding and extrusion.

General

Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Filled • Good Colorability • Good Flexibility • Good Melt Strength	• Good Moldability • Good Processability • High Elongation • Low Flow	• Low Hardness • Medium Density
Uses	• Bushings • Consumer Applications • Film • Flexible Grips • Gaskets • General Purpose	• Grommets • Handles • Knobs • Luggage • Plugs • Profiles	• Rubber Replacement • Seals • Soft Touch Applications • Tubing
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Natural Color	• Opaque
Forms	• Pellets		
Processing Method	• Cast Film	• Extrusion	• Injection Molding

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.05		ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	0.20	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ²			ASTM D412
Across Flow : 100% Strain	59.0	psi	
Flow : 100% Strain	99.0	psi	
Tensile Stress ²			ASTM D412
Across Flow : 300% Strain	127	psi	
Flow : 300% Strain	194	psi	
Tensile Strength ²			ASTM D412
Across Flow : Break	734	psi	
Flow : Break	220	psi	
Tensile Elongation ²			ASTM D412
Across Flow : Break	690	%	
Flow : Break	470	%	
Tear Strength ²			ASTM D624
Across Flow	94.0	lbf/in	
Flow	49.0	lbf/in	
Compression Set ³			ASTM D395B
73°F, 22 hr	7.9	%	
158°F, 22 hr	31	%	

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Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	22		
Shore A, 5 sec, Injection Molded	20		

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	440 to 480	°F
Middle Temperature	440 to 480	°F
Front Temperature	440 to 480	°F
Nozzle Temperature	440 to 480	°F
Processing (Melt) Temp	440 to 480	°F
Mold Temperature	60 to 90	°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 not necessary. However, if moisture is a problem, dry the pellets for 2 to 4 hours at 150°F (65°C).

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	420 to 460	°F
Cylinder Zone 2 Temp.	420 to 460	°F
Cylinder Zone 3 Temp.	420 to 460	°F
Cylinder Zone 4 Temp.	420 to 460	°F
Cylinder Zone 5 Temp.	420 to 460	°F
Die Temperature	420 to 460	°F

Extrusion Notes

Screw Speed: 30 to 100 rpm

Notes

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

² Die C, 20 in/min

³ Type 1