Monprene® PC-13970 XRD1 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

Thursday, April 2, 2026

General Information

Product Description

Monprene PC-13970 XRD1 is a high performance thermoplastic elastomer, available in NAT and colors, designed for a variety of personal care consumer product applications requiring a soft, rubber-like feel, including toothbrush articles. Monprene PC-13970 XRD1 is a medium hardness, medium density, UV stabilized grade that complies with various US FDA and European regulations and directives for food contact and is suitable for injection molding.

General			
Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Filled • Food Contact Acceptable • Good Adhesion • Good Colorability	• Good Processability • High Elasticity • Lubricated • Medium Density	• Medium Flow • Medium Hardness • UV Stabilized
Uses	• Consumer Applications • Cosmetic Packaging • Food Containers • Food Packaging • Food Service Applications	• Gaskets • Handles • Kitchenware • Lids • Non-specific Food Applications	• Rubber Replacement • Toothbrush Handles • Toys
Agency Ratings	• EU Food Contact	• FDA Food Contact	
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Opaque	
Forms	• Pellets		
Processing Method	• Injection Molding		

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.05	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	12	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress (100% Strain)	334	psi	ISO 37
Tensile Stress (300% Strain)	348	psi	ISO 37
Tensile Strength (Break)	1200	psi	ISO 37
Tensile Elongation (Break)	700	%	ISO 37
Compression Set [2]			ISO 815
73°F, 22 hr	34	%	
158°F, 22 hr	55	%	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			
Shore A, 1 sec	72		ASTM D2240
Shore A, 5 sec	70		ISO 868
Fill Analysis	**Nominal Value**	**Unit**	**Test Method**
Apparent Viscosity (392°F, 206 sec^-1)	110	Pa·s	ISO 11443

Revision Date: 6/6/2016

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Processing Information

Injection	Nominal Value	Unit
Rear Temperature	248 to 320	°F
Middle Temperature	320 to 446	°F
Front Temperature	356 to 446	°F
Nozzle Temperature	356 to 446	°F
Processing (Melt) Temp	356 to 446	°F
Mold Temperature	59 to 122	°F
Injection Rate	Fast	
Back Pressure	72.5 to 218	psi
Screw Speed	50 to 100	rpm
Cushion	0.118 to 0.787	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).

Notes

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

[2] Method B

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