## 

# Monprene® PC-13970 XRD1 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

## **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	<ul><li> Africa &amp; Middle East</li><li> Asia Pacific</li></ul>	<ul><li>Europe</li><li>Latin America</li></ul>	North America
Features	<ul><li>Filled</li><li>Food Contact Acceptable</li><li>Good Adhesion</li><li>Good Colorability</li></ul>	<ul><li>Good Processability</li><li>High Elasticity</li><li>Lubricated</li><li>Medium Density</li></ul>	<ul><li>Medium Flow</li><li>Medium Hardness</li><li>UV Stabilized</li></ul>
Uses	<ul> <li>Consumer Applications</li> <li>Cosmetic Packaging</li> <li>Food Containers</li> <li>Food Packaging</li> <li>Food Service Applications</li> </ul>	<ul> <li>Gaskets</li> <li>Handles</li> <li>Kitchenware</li> <li>Lids</li> <li>Non-specific Food Applications</li> </ul>	<ul><li>Rubber Replacement</li><li>Toothbrush Handles</li><li>Toys</li></ul>
Agency Ratings	<ul> <li>EU Food Contact, Unspecified Rating</li> </ul>	<ul> <li>FDA Food Contact, Unspecified Rating</li> </ul>	
RoHS Compliance	RoHS Compliant		
Appearance	Colors Available	• Opaque	
Forms	Pellets		
Processing Method	Injection Molding		

ASTM & ISO 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 <sup>2</sup>			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	1井有师	CARSTM D2240	
Fill Analysis	Nominal Value	phit with	58958 Test Method	
Apparent Viscosity (392°E 206 sec^-1)	110	Pars 021	ISO 11443	

ACTM 9 ICO Dramatica 1

Apparent Viscosity (392°F, 206 sec^-1)



Revision Date: 6/6/2016

The information and recommendations contained in this bulletin are, to the best of our knowledge, accurate and reliable but no guarantee of their accuracy is made. All products are sold upon condition that purchasers shall make their own tests to determine the suitability of such products for their particular purposes and uses and purchasers assume all risks and liability for the results of use of the products, including use in accordance with seller's recommendations. Nothing in this bulletin constitutes permission or a recommendation to practice or use any invention covered by any patent owned by this company or by others. There is no warranty of merchantability and there are no other warranties for the products described.

Friday, June 30, 2017

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## Legal Statement

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Processing Information				
njection	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

<sup>1</sup> Typical properties: these are not to be construed as specifications.

### <sup>2</sup> Method B

#### Teknor Apex Company Corporate Headquarters

## Teknor Apex U.K. Ltd.

etpsales@teknorapex.co.uk

In U.S. for Vinyls, TPEs, Colorants, Engineered Thermoplastics (Chem Polymer) 505 Central Avenue Pawtucket, Rhode Island 02861 U.S. Tat Bank Road Oldbury, West Midlands B69 4NH England Phone: (44) 121-665-2100 Fax: (44) 121-544-5530

Phone: 401-725-8000 Fax: 401-725-8095 Toll Free (U.S. only) 800-556-3864

info@teknorapex.com



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