

# Monprene® PC-13940 XRD1 (PRELIMINARY DATA)

## Teknor Apex Company - Thermoplastic Elastomer

Friday, June 30, 2017

### **General Information**

#### **Product Description**

Monprene PC-13940 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-13940 XRD1 is a low 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

General			
Material Status	Preliminary Data		
Availability	<ul><li>Africa &amp; Middle East</li><li>Europe</li></ul>	<ul><li>Latin America</li><li>North America</li></ul>	
Features	<ul><li>Filled</li><li>Food Contact Acceptable</li><li>Good Adhesion</li></ul>	<ul><li>Good Colorability</li><li>Good Processability</li><li>Low Hardness</li></ul>	<ul><li> Lubricated</li><li> Medium Density</li><li> UV Stabilized</li></ul>
Uses	<ul><li>Closures</li><li>Consumer Applications</li><li>Cosmetic Packaging</li><li>Food Containers</li><li>Food Packaging</li></ul>	<ul><li>Food Service Applications</li><li>Gaskets</li><li>Handles</li><li>Kitchenware</li><li>Lids</li></ul>	<ul><li>Non-specific Food Applications</li><li>Rubber Replacement</li><li>Toothbrush Handles</li><li>Toys</li></ul>
Agency Ratings	<ul> <li>EU Food Contact, Unspecified Rating</li> </ul>	FDA Food Contact, Unspecif Rating	ïed
RoHS Compliance	<ul> <li>RoHS Compliant</li> </ul>		
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	
Elastomers	Nominal Value	Unit	Test Method	
Tensile Stress (100% Strain)	145	psi	ISO 37	
Tensile Stress (300% Strain)	232	psi	ISO 37	
Tensile Strength (Break)	1060	psi	ISO 37	
Tensile Elongation (Break)	900	%	ISO 37	
Compression Set <sup>2</sup>			ISO 815	
73°F, 22 hr	21	%		
158°F, 22 hr	39	%		
Hardness	Nominal Value	Unit	Test Method	
Durometer Hardness (Shore A, 5 sec)	40		ISO 868	
Fill Analysis	Nominal Value	Unit	Test Method	

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Durometer Hardness (Shore A, 5 sec)	40		ISO 868
Fill Analysis	Nominal Value	Unit	Test Method
Apparent Viscosity (392°F, 206 sec^-1)	109	Pa∙s	ISO 11443
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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

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

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<sup>&</sup>lt;sup>2</sup> Method B