



Monprene® PC-13940 XRD1 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

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 molding.

General

Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Europe	• Latin America • North America	
Features	• Filled • Food Contact Acceptable • Good Adhesion	• Good Colorability • Good Processability • Low Hardness	• Lubricated • Medium Density • UV Stabilized
Uses	• Closures • 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		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.05	g/cm ³	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 ²			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
Apparent Viscosity (392°F, 206 sec ⁻¹)	109	Pa·s	ISO 11443

Monprene® PC-13940 XRD1 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

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