



Monprene® PC-13138 NAT XRD1 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene PC-13138 NAT 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-13138 XRD1 is a medium hardness, low density grade suitable for both extrusion and injection molding.

General

Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Good Colorability • Good Processability • High Elasticity	• Low Density • Lubricated • Medium Flow	• Medium Hardness
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
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Translucent	
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	0.880	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	15	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Strength (Break)	435	psi	ISO 37
Tensile Elongation (Break)	600	%	ISO 37
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			
Shore A, 1 sec	40		ASTM D2240
Shore A, 5 sec	38		ISO 868

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

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Injection	Nominal Value	Unit
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.