



THERMOLAST K® GP/HM TC4GPZ

KRAIBURG TPE Corporation - Styrene Ethylene Butylene Styrene Block

Monday, August 04, 2008

Copolymer

General Information

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Features	• Good Weather Resistance		
Uses	• Appliances • Automotive Applications • Construction Applications	• Consumer Applications • Electrical/Electronic Applications • Industrial Applications	• Outdoor Applications • Sporting Goods • Toys
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

ASTM and ISO Properties ¹

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.10 g/cm ³	1.10 g/cm ³	ISO 1183
Molding Shrinkage (0.0787 in (2.00 mm))	0.90 %	0.90 %	ISO 294-4
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Stress (Break)	870 psi	6.00 MPa	ISO 527-2
Elastomers	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Elongation (Break)	660 %	660 %	ISO 37
Compression Set			ISO 815
73 °F (23 °C), 72.0 hr	12 %	12 %	
158 °F (70 °C), 24.0 hr	33 %	33 %	
212 °F (100 °C), 24.0 hr	68 %	68 %	
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Shore Hardness (Shore A)	40	40	ISO 868

Additional Properties

Good Weather Resistance, 4000 MJ/m² in suntester with dE of only 1.030.
 Hard/soft with: PP
 Tear Strength, DIN 5315: 11 N/mm

Processing Information

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	176 °F	80.0 °C
Drying Time	2.0 hr	2.0 hr
Rear Temperature	356 °F	180 °C
Middle Temperature	392 °F	200 °C
Front Temperature	428 °F	220 °C
Mold Temperature	77.0 to 104 °F	25.0 to 40.0 °C
Injection Pressure	725 to 5800 psi	5.00 to 40.0 MPa
Injection Rate	Fast	Fast
Back Pressure	290 to 725 psi	2.00 to 5.00 MPa

Injection Notes

Hot Runner Temperature: 200 to 250°C

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Extrusion

	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	176 °F	80.0 °C
Drying Time	2.0 hr	2.0 hr
Cylinder Zone 1 Temp.	320 °F	160 °C
Cylinder Zone 3 Temp.	338 °F	170 °C
Cylinder Zone 5 Temp.	356 °F	180 °C
Adapter Temperature	356 °F	180 °C
Die Temperature	356 °F	180 °C

Extrusion Notes

Compression Ratio: At least 3.5:1
Mold Clamping Zone: 3 to 5 mm
Screw Length: 25D

Notes

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