OnFlex™ HF 9010-90B

Thermoplastic Elastomer

Key Characteristics

Product Description			
OnFlex HF 9010-90B is a thermoplastic elastomer compound based on styrenic block copolymers. It contains a halogen-free flame retardant system. The target hardness is 90 +-5 Sh A.			
General			
Material Status	• Commercial: Active		
Regional Availability	• Europe		
Features	• Flame Retardant	• Halogen Free	• UV Stabilized
Uses	• Flame Retardant Jacketing • Gaskets	• General Purpose • Industrial Applications	
RoHS Compliance	• RoHS Compliant		
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density	1.08 g/cm³	1.08 g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (190°C/5.0 kg)	6.3 cm³/10min	6.3 cm³/10min	ISO 1133
Molding Shrinkage [2]			ISO 294-4
Across Flow : 0.0787 in (2.00 mm)	0.70 to 1.1 %	0.70 to 1.1 %	
Flow : 0.0787 in (2.00 mm)	0.80 to 1.2 %	0.80 to 1.2 %	
Viscosity			Internal Method
GLS method, 200°C, 11170 1/s	16.8 Pa·s	16.8 Pa·s	
GLS method, 200°C, 1340 1/s	83.0 Pa·s	83.0 Pa·s	
GLS method, 200°C, 223,41 1/s	314 Pa·s	314 Pa·s	
GLS method, 200°C., 67.023 1/s	741 Pa·s	741 Pa·s	
GLS method, 200°C., 67023.00 1/s	4.50 Pa·s	4.50 Pa·s	
Mechanical	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Strength [3]			ISO 37
Flow : 73°F (23°C)	986 psi	6.80 MPa	
Across Flow : 73°F (23°C)	1200 psi	8.30 MPa	
Tensile Elongation [3]			ISO 37
Across Flow : Break, 73°F (23°C)	580 %	580 %	
Flow : Break, 73°F (23°C)	430 %	430 %	
Elastomers	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Stress [3]			ISO 37
Across Flow : 100% Strain, 73°F (23°C)	609 psi	4.20 MPa	
Flow : 100% Strain, 73°F (23°C)	682 psi	4.70 MPa	
Tear Strength	240 lbf/in	42.0 kN/m	ISO 34-1
Hardness	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Shore Hardness (Shore A, 10 sec)	90	90	ISO 48-4

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Flammability	Typical Value (English)	Typical Value (SI)	Test Method
Flame Rating (0.06 in (1.6 mm))	V-0	V-0	UL 94
Glow Wire Flammability Index			IEC 60695-2-12
0.06 in (1.6 mm)	1760 °F	960 °C	

Additional Information

Properties are measured using injection molded plaques.

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	176 °F	80 °C
Drying Time	2.0 hr	2.0 hr
Processing (Melt) Temp	320 to 356 °F	160 to 180 °C
Mold Temperature	86 to 122 °F	30 to 50 °C

Notes

[1] Typical values are not to be construed as specifications.

[2] plate 60 mm x 60 mm x 2 mm

[3] 7.9 in/min (200 mm/min)

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