OnFlex™ HF 9010-50N

Thermoplastic Elastomer

Key Characteristics

Product Description	
OnFlex HF 9010-50N is a thermoplastic elastomer compound based on styrenic block copolymers. It contains a halogen-free flame retardant system. The target hardness is 50 +-5 Sh A.	
General	
Material Status	• Commercial: Active
Regional Availability	• Europe
Uses	• Flame Retardant Jacketing • General Purpose • Gaskets • Industrial Applications
RoHS Compliance	• RoHS Compliant
Appearance	• Natural Color
Forms	• Pellets
Processing Method	• Injection Molding

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density	1.09 g/cm³	1.09 g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (190°C/5.0 kg)	5.0 cm³/10min	5.0 cm³/10min	ISO 1133
Viscosity			Internal Method
GLS method, 200°C, 11170 1/s	11.0 Pa·s	11.0 Pa·s	
GLS method, 200°C, 1340 1/s	49.0 Pa·s	49.0 Pa·s	
Mechanical	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Strength [2]			ISO 37
Flow : 73°F (23°C)	261 psi	1.80 MPa	
Across Flow : 73°F (23°C)	348 psi	2.40 MPa	
Tensile Elongation [2]			ISO 37
Across Flow : Break, 73°F (23°C)	650 %	650 %	
Flow : Break, 73°F (23°C)	400 %	400 %	
Elastomers	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Stress [2]			ISO 37
Across Flow : 100% Strain, 73°F (23°C)	145 psi	1.00 MPa	
Flow : 100% Strain, 73°F (23°C)	189 psi	1.30 MPa	
Tear Strength	85.7 lbf/in	15.0 kN/m	ISO 34-1
Compression Set (158°F (70°C), 22 hr)	56 %	56 %	ISO 815
Hardness	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Shore Hardness (Shore A, 10 sec)	50	50	ISO 48-4
Thermal	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Thermal Conductivity	2.3 Btu·in/hr/ft²/°F	0.33 W/m/K	Internal Method
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.

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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] 7.9 in/min (200 mm/min)

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