OnFlex™ S HF 50A-3S1981

Thermoplastic Elastomer

Key Characteristics

Product Description			
OnFlex™-S HF thermoplastic elastomer compounds are based on hydrogenated styrenic block copolymers. This range of compounds utilize a unique, patent pending halogen free flame retardancy system. Furthermore, OnFlex™-S HF compounds offer good mechanical properties, compliance with UL94 V-0, good LOI values, wide hardness range, good processability, and excellent UV stability.			
General			
Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	
Features	• Flame Retardant		
Uses	• Automotive Applications • Business Equipment	• Electrical/Electronic Applications • General Purpose	• Industrial Applications
RoHS Compliance	• RoHS Compliant		
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
Elastomers	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Stress (100% Strain)	160 psi	1.10 MPa	ISO 37
Tensile Stress (300% Strain)	290 psi	2.00 MPa	ISO 37
Tensile Stress (Break)	363 psi	2.50 MPa	ISO 37
Tensile Elongation (Break)	400 %	400 %	ISO 37
Tear Strength	137 lbf/in	24.0 kN/m	ISO 34-1
Compression Set			ISO 815
73°F (23°C), 72 hr	10 %	10 %	
158°F (70°C), 22 hr	40 %	40 %	
212°F (100°C), 22 hr	77 %	77 %	
Hardness	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Shore Hardness (Shore A, 10 sec)	50	50	ISO 48-4
Electrical	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Comparative Tracking Index	550 V	550 V	IEC 60112
Flammability	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Flame Rating (0.06 in (1.5 mm))	V-0	V-0	UL 94
Glow Wire Flammability Index			IEC 60695-2-12
0.08 in (2.0 mm)	1760 °F	960 °C	
Glow Wire Ignition Temperature			IEC 60695-2-13
0.08 in (2.0 mm)	1340 °F	725 °C	
Oxygen Index	36 %	36 %	ISO 4589-2
Additional Information	**Typical Value (English)**	**Typical Value (SI)**	
Generic Material Type	Styrenic Thermoplastic Elastomer (TES)	Styrenic Thermoplastic Elastomer (TES)	

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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
Injection Rate	Moderate-Fast	Moderate-Fast

Notes

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

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