OnFlex™-S FR 50A-3S1831

Styrenic Thermoplastic Elastomer

Key Characteristics

Product Description			
OnFlex™-S FR thermoplastic elastomer compounds are based on hydrogenated styrenic block copolymers. This range of compounds are specially flame retarded with a highly effective, RoHS compliant halogen based flame retardant system. Furthermore, OnFlex™-S FR compounds offer excellent mechanical properties, good elevated temperature compression set performance, very wide hardness range and good processability.			
General			
Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Europe • North America	• South America
Features	• Flame Retardant	• Halogenated	
Uses	• Automotive Applications • Business Equipment	• Electrical/Electronic Applications • General Purpose	• Industrial Applications
Agency Ratings	• UL QMFZ2 .E76261		
RoHS Compliance	• RoHS Compliant		
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density	1.20 g/cm³	1.20 g/cm³	ISO 1183
Elastomers	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Stress (100% Strain)	218 psi	1.50 MPa	ISO 37
Tensile Stress (300% Strain)	522 psi	3.60 MPa	ISO 37
Tensile Stress (Break)	870 psi	6.00 MPa	ISO 37
Tensile Elongation (Break)	510 %	510 %	ISO 37
Tear Strength	130 lbf/in	23 kN/m	ISO 34-1
Compression Set			ISO 815
73°F (23°C), 72.0 hr	10 %	10 %	
158°F (70°C), 22.0 hr	27 %	27 %	
212°F (100°C), 22.0 hr	44 %	44 %	
Hardness	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Shore Hardness (Shore A)	50	50	ISO 868
Flammability	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Flame Rating - UL (0.0591 in (1.50 mm))	V-0	V-0	UL 94
Glow Wire Flammability Index			IEC 60695-2-12
0.0787 in (2.00 mm)	1760 °F	960 °C	
Oxygen Index	27 %	27 %	ISO 4589-2

Additional Properties
Properties are measured using injection molded plaques.

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Processing (Melt) Temp	392 to 428 °F	200 to 220 °C
Mold Temperature	104 to 140 °F	40.0 to 60.0 °C
Injection Rate	Fast	Fast

Notes

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

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