OnFlex™ S FR 70A-3S1890

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 • Latin America	• North America
Features	• Flame Retardant	• Halogenated	• UV Stabilized
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	1.20 g/cm³	1.20 g/cm³	ISO 1183
Elastomers	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Stress (100% Strain)	392 psi	2.70 MPa	ISO 37
Tensile Stress (300% Strain)	754 psi	5.20 MPa	ISO 37
Tensile Stress (Break)	1190 psi	8.20 MPa	ISO 37
Tensile Elongation (Break)	500 %	500 %	ISO 37
Tear Strength	171 lbf/in	30.0 kN/m	ISO 34-1
Compression Set			ISO 815
73°F (23°C), 72 hr	19 %	19 %	
158°F (70°C), 22 hr	35 %	35 %	
212°F (100°C), 22 hr	53 %	53 %	
Hardness	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Shore Hardness (Shore A, 10 sec)	70	70	ISO 48-4
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	
Oxygen Index	25 %	25 %	ISO 4589-2
Additional Information	**Typical Value (English)**	**Typical Value (SI)**	
Generic Material Type	Styrenic Thermoplastic Elastomer (TES)	Styrenic Thermoplastic Elastomer (TES)	

Properties are measured using injection molded plaques.

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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 to 60 °C
Injection Rate	Fast	Fast

Notes

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

CONTACT INFORMATION

North America
Avon Lake, United States
33587 Walker Road
Avon Lake, OH, United States , 44012
+1 440 930 1000
+1 844 4AVIENT

South America
Sao Paulo, Brazil
Av. Francisco Nakasato, 1700
13295-000 Itupeva
Sao Paulo, Brazil
+55 11 4593 9200

Asia
Shanghai, China
2F, Block C
200 Jinsu Road
Pudong, 201206
Shanghai, China
+86 (0) 21 6028 4888

Europe
Pommerloch, Luxembourg
19 Route de Bastogne
Pommerloch, Luxembourg , L-9638
+352 269 050 35

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