



OnFlex™-S HF 80A-3S1986

Styrenic 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 • North America	• South 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	1.06 g/cm ³	1.06 g/cm ³	ISO 1183
Elastomers	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Stress (100% Strain)	435 psi	3.00 MPa	ISO 37
Tensile Stress (300% Strain)	609 psi	4.20 MPa	ISO 37
Tensile Stress (Break)	798 psi	5.50 MPa	ISO 37
Tensile Elongation (Break)	420 %	420 %	ISO 37
Tear Strength	200 lbf/in	35 kN/m	ISO 34-1
Compression Set			ISO 815
73°F (23°C), 72.0 hr	31 %	31 %	
158°F (70°C), 22.0 hr	50 %	50 %	
212°F (100°C), 22.0 hr	81 %	81 %	
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Shore Hardness (Shore A)	80	80	ISO 868
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 - 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	
Glow Wire Ignition Temperature			IEC 60695-2-13
0.0787 in (2.00 mm)	1340 °F	725 °C	
Oxygen Index	40 %	40 %	ISO 4589-2

Additional Properties

Properties are measured using injection molded plaques.

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Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	176 °F	80.0 °C
Drying Time	2.0 hr	2.0 hr
Processing (Melt) Temp	320 to 356 °F	160 to 180 °C
Mold Temperature	86.0 to 122 °F	30.0 to 50.0 °C
Injection Rate	Moderate-Fast	Moderate-Fast

Notes

¹ Typical values are not to be construed as specifications.

CONTACT INFORMATION

Americas

Argentina - Buenos Aires
+0054 11 4200 5917

Brasil - Campinas
+55 19 3206 0561

Mexico - Toluca
+52 722 2790200

United States - Avon Lake
+1 440 930 1000

United States - McHenry
+1 (815) 385-8500

Asia

China - Shenzhen
+86 (0) 755 2969 2888

China - Suzhou
+86 (0) 512 6823 24 38

China - Suzhou
+86 512 6265 2600

Hong Kong -
+852 2690 5332

India - Mumbai
+91 9820 194 220

Taiwan - Yonghe City,
+886 9396 99740

Europe

Germany - Gaggenau
+49 (0) 7225 6802 0

Netherlands - The Netherlands
+31 (0) 165 331 293

Spain - Barbastro (Huesca)
+34 (0) 9 7431 0314

Turkey - Cekmece-Istanbul-Türkiye
+90 (0) 212 549 2256



Beyond Polymers.

Better Business Solutions. SM

www.polyone.com

PolyOne Americas

33587 Walker Road
Avon Lake, Ohio 44012
United States
+1 440 930 1000
+1 866 POLYONE

PolyOne Asia

No. 88 Guoshoujing Road
Z.J Hi-tech Park, Pudong
Shanghai, 201203, China
+86 (0) 21 5080 1188

PolyOne Europe

2 Rue Melville Wilson
5330 Assesse, Belgium
+32 (0) 83 660 211