

## PolyOne OnFlex™ S HF 50A-3S1981 Thermoplastic Elastomer (TPE)

Category : Polymer , Thermoplastic , Elastomer, TPE

### Material Notes:

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. Properties are measured using injection molded plaques. Information provided by PolyOne

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_PolyOne-OnFlex-S-HF-50A-3S1981-Thermoplastic-Elastomer-TPE.php](http://www.lookpolymers.com/polymer_PolyOne-OnFlex-S-HF-50A-3S1981-Thermoplastic-Elastomer-TPE.php)

Physical Properties	Metric	English	Comments
Density	1.09 g/cc	0.0394 lb/in <sup>3</sup>	ISO 1183

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	50	50	ISO 868
Tensile Strength at Break	2.50 MPa	363 psi	ISO 37
Tensile Stress	1.10 MPa @Strain 100 %	160 psi @Strain 100 %	ISO 37
	2.00 MPa @Strain 300 %	290 psi @Strain 300 %	ISO 37
Elongation at Break	400 %	400 %	ISO 37
Tear Strength	24.0 kN/m	137 pli	ISO 34-1
Compression Set	10 % @Temperature 23.0 °C, Time 259000 sec	10 % @Temperature 73.4 °F, Time 72.0 hour	ISO 815
	40 % @Temperature 70.0 °C, Time 79200 sec	40 % @Temperature 158 °F, Time 22.0 hour	ISO 815
	77 % @Temperature 100 °C, Time 79200 sec	77 % @Temperature 212 °F, Time 22.0 hour	ISO 815

Thermal Properties	Metric	English	Comments
Flammability, UL94	V-0 @Thickness 1.50 mm	V-0 @Thickness 0.0591 in	UL 94

Thermal Properties	Metric	English	Comments
Glow Wire Test	725 °C	1340 °F	Ignition Temperature; IEC 60695-2-13
	@Thickness 2.00 mm	@Thickness 0.0787 in	
	960 °C	1760 °F	Flammability Index; IEC 60695-2-12
	@Thickness 2.00 mm	@Thickness 0.0787 in	

Electrical Properties	Metric	English	Comments
Comparative Tracking Index	550 V	550 V	IEC 60112

Processing Properties	Metric	English	Comments
Melt Temperature	160 - 180 °C	320 - 356 °F	
Mold Temperature	30.0 - 50.0 °C	86.0 - 122 °F	
Drying Temperature	80.0 °C	176 °F	
Dry Time	2.00 hour	2.00 hour	

Descriptive Properties	Value	Comments
Features	Flame Retardant	
Forms	Pellets	
Generic Material	TPE	
Generic Material Type	Styrenic Thermoplastic Elastomer (TES)	
Generic Name	Thermoplastic Elastomer (TPE)	
Injection Rate	Moderate-Fast	
Manufacturer / Supplier	GLS Thermoplastic Elastomers	
Processing Method	Injection Molding	
Regional Availability	Africa & Middle East	
	Asia Pacific	
	Europe	
	South America	
RoHS Compliance	RoHS Compliant	
Uses	Automotive Applications	

Descriptive Properties	Valueless Equipment	Comments
	Electrical/Electronic Applications	
	General Purpose	
	Industrial Applications	

## Contact Songhan Plastic Technology Co.,Ltd.

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