



OnFlex™-S SH 45A-3S1853

Styrenic Thermoplastic Elastomer

Key Characteristics

Product Description

OnFlex™-S SH thermoplastic elastomer compounds are based on hydrogenated styrenic block copolymers. This range of compounds are formulated to deliver excellent mechanical properties in addition to typical OnFlex™-S properties such as a wide hardness range, low compression set, good processability, good colourability and a wide temperature operating range. OnFlex™-S SH compounds are filled, and are therefore opaque and a moderately high density.

General

Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Europe • North America	• South America
Features	• General Purpose		
Uses	• Appliances • Automotive Applications	• Good UV Resistance • Consumer Applications	• 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/cm ³	1.20 g/cm ³	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)	319 psi	2.20 MPa	ISO 37
Tensile Stress (Break)	638 psi	4.40 MPa	ISO 37
Tensile Elongation (Break)	530 %	530 %	ISO 37
Tear Strength	110 lbf/in	20 kN/m	ISO 34-1
Compression Set			ISO 815
73°F (23°C), 72.0 hr	11 %	11 %	
158°F (70°C), 22.0 hr	45 %	45 %	
212°F (100°C), 22.0 hr	68 %	68 %	
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Shore Hardness (Shore A)	45	45	ISO 868

Additional Properties

Properties are measured using injection molded plaques.

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Processing (Melt) Temp	356 to 428 °F	180 to 220 °C
Mold Temperature	86.0 to 140 °F	30.0 to 60.0 °C
Injection Rate	Fast	Fast

Notes

¹ Typical values are not to be construed as specifications.

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