Evoprene™ LF 6153

Styrene Butadiene Block Copolymer

AlphaGary

Message:

Two ranges of HSBC based Evoprene™ TPE compounds have been created for the Automotive Industry, both specially formulated to have very low fogging characteristics suitable for automotive interior applications. Evoprene™ LF grades meet the requirements of the Reflectance Fogging test according to SAE J1756 whilst the Evoprene™ GF grades satisfy the DIN 75201B Gravimetric Fogging standard. Different automotive makers prefer different methods.
All these Evoprene™ compounds are based on the well established hydrogenated styrene block copolymer (HSBC) TPE technology which offers a great blend of performance and processing characteristics to both automotive designers and processors alike. All grades can be injection moulded or extruded on standard thermoplastics equipment - full details are available in our Evoprene™ processing guides. Compounds can be formulated at various levels of UV resistance, depending on where in the vehicle the parts are to be used. Whilst they are normally supplied as natural for masterbatching, or black, Evoprene™ LF and GF compounds can be colour matched to specific automotive requirements when produced in longer compound runs. Heat ageing tests demonstrate these compounds are thermally stable to well beyond the maximum and minimum temperatures recorded in cars and trucks.

General Information	
Features	Block Copolymer Good Processability Good Thermal Stability Low to No Fogging
Uses	Automotive Applications Automotive Interior Parts Automotive Interior Trim Masterbatch
Agency Ratings	SAE J1756
RoHS Compliance	Contact Manufacturer
Appearance	Black Colors Available Natural Color
Forms	Pellets
Processing Method	Extrusion Injection Molding

Physical	Nominal Value	Unit	Test Method
Density	0.850 to 0.950	g/cm³	ISO 1183
Hardness	**Nominal Value**	**Unit**	**Test Method**
Shore Hardness (Shore A, 15 sec)	58		ISO 868
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Set [1] (70°C, 1320 min)	58	%	Internal Method
Tensile Stress - Flow [2] (100% Strain)	2.50	MPa	ISO 37

Tensile Stress - Flow [3] (Yield)	5.40	MPa	ISO 37
Tensile Elongation - Flow [4] (Break)	630	%	ISO 37
Tear Strength [5]			ISO 34-1
Across Flow	30	kN/m	
Flow	25	kN/m	
Compression Set			ISO 815
23°C, 72 hr	27	%	
70°C, 24 hr	47	%	
Aging	**Nominal Value**	**Unit**	**Test Method**
Change in Tensile Strength in Air [6] (100°C, 1000 hr)	3.0	%	ISO 188
Change in Tensile Strain at Break in Air [7] (100°C, 1000 hr)	2.0	%	ISO 188
Change in Shore Hardness in Air [8] (Shore A, 100°C, 1000 hr)	-2.0		ISO 188
Continuous Upper Temperature Resistance [9] (3 hr)	165	°C	
Change in Length in Air [10]	-0.70	%	ISO 188
Change in Volume in Air [11]	-0.50	%	ISO 188
Fogging			
Gravimetric	6.0E-4	g	DIN 75201B
Reflectance [12]	86	%	SAE J1756
Odor Rating - Dry [13]	2.00		Multiple Standards
Ozone Resistance [14]	0.00		
Thermal	**Nominal Value**	**Unit**	**Test Method**
Brittleness Temperature	-60.0	°C	ASTM D746
Flammability	**Nominal Value**	**Unit**	**Test Method**
Burning Rate	45	mm/min	

NOTE	
1.	VDA 675 217B
2.	500 mm/min
3.	500 mm/min
4.	500 mm/min
5.	Method Ba, Angle (Unnicked)
6.	150+/- 50 air changes/hour
7.	150+/- 50 air changes/hour
8.	150+/- 50 air changes/hour
9.	No distortion
10.	150+/- 50 air changes/hour
11.	150+/- 50 air changes/hour
12.	3h heat @ 121°C, 21°C cooling plate, post test conditioning 1h & 16h
13.	SAE J1351 / FLTM BO131-01

14.	100 pphm/200 hr/ 20% strain

Recommended distributors for this material

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