Evoprene™ LF 6150

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)	44		ISO 868		
Elastomers	Nominal Value	Unit	Test Method		
Tensile Set ¹ (70°C, 1320 min)	44	%	Internal Method		
Tensile Stress - Flow ² (100% Strain)	2.00	MPa	ISO 37		

Tensile Stress - Flow ³ (Yield)	4.00	MPa	ISO 37
Tensile Elongation - Flow ⁴ (Break)	530	%	ISO 37
Tear Strength ⁵			ISO 34-1
Across Flow	27	kN/m	
Flow	21	kN/m	
Compression Set			ISO 815
23°C, 72 hr	17	%	
70°C, 24 hr	32	%	
Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air ⁶ (100°C, 1000 hr)	-0.10	%	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)	-1.0		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	-0.70	%	ISO 188
Fogging			
Gravimetric	1.0	mg	DIN 75201B
Reflectance ¹²	83	%	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	42	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		

100 pphm/200 hr/ 20% strain

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