

Evoprene™ GF 6250

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 | DIN 75201B |
| RoHS Compliance | Contact Manufacturer |
| Appearance | Black |
| | Colors Available |
| | Natural Color |
| Forms | Pellets |
| Processing Method | Extrusion |
| | Injection Molding |

| Physical | Nominal Value | Unit | Test Method |
|--|----------------|-------------------|-----------------|
| Density | 0.840 to 0.940 | g/cm ³ | ISO 1183 |
| Hardness | Nominal Value | Unit | Test Method |
| Shore Hardness (Shore A, 15 sec) | 47 | | ISO 868 |
| Elastomers | Nominal Value | Unit | Test Method |
| Tensile Set ¹ (70°C, 1320 min) | 45 | % | Internal Method |
| Tensile Stress - Flow ² (100% Strain) | 2.80 | MPa | ISO 37 |

| | | | |
|--|--|-------------|--------------------|
| Tensile Stress - Flow ³ (Yield) | 6.20 | MPa | ISO 37 |
| Tensile Elongation - Flow ⁴ (Break) | 550 | % | ISO 37 |
| Tear Strength ⁵ | | | ISO 34-1 |
| Across Flow | 33 | kN/m | |
| Flow | 17 | kN/m | |
| Compression Set | | | ISO 815 |
| 23°C, 72 hr | 20 | % | |
| 70°C, 24 hr | 33 | % | |
| Aging | Nominal Value | Unit | Test Method |
| Change in Tensile Strength in Air ⁶ (100°C, 1000 hr) | 17 | % | ISO 188 |
| Change in Tensile Strain at Break in Air ⁷ (100°C, 1000 hr) | 4.0 | % | 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) | 150 | °C | |
| Change in Length in Air ¹⁰ | -1.0 | % | ISO 188 |
| Change in Volume in Air ¹¹ | -1.9 | % | ISO 188 |
| Fogging - Reflectance ¹² | 61 | % | 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 | | |
| 14. | 100 pphm/200 hr/ 20% strain | | |

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