



## OnFlex™-S SL 50A-3S1869

### Styrenic Thermoplastic Elastomer

#### Key Characteristics

##### Product Description

OnFlex™-S SL 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. Being unfilled, OnFlex™-S SL compounds are translucent and have a low density.

##### General

|                       |                                           |                                                 |                           |
|-----------------------|-------------------------------------------|-------------------------------------------------|---------------------------|
| Material Status       | • Commercial: Active                      |                                                 |                           |
| Regional Availability | • Africa & Middle East<br>• Asia Pacific  | • Europe<br>• North America                     | • South America           |
| Features              | • General Purpose                         |                                                 |                           |
| Uses                  | • Appliances<br>• Automotive Applications | • Good UV Resistance<br>• Consumer Applications | • Industrial Applications |
| RoHS Compliance       | • RoHS Compliant                          |                                                 |                           |
| Forms                 | • Pellets                                 |                                                 |                           |
| Processing Method     | • Injection Molding                       |                                                 |                           |

#### Technical Properties <sup>1</sup>

| Physical                     | Typical Value (English) | Typical Value (SI)      | Test Method |
|------------------------------|-------------------------|-------------------------|-------------|
| Density                      | 0.890 g/cm <sup>3</sup> | 0.890 g/cm <sup>3</sup> | ISO 1183    |
| Elastomers                   | Typical Value (English) | Typical Value (SI)      | Test Method |
| Tensile Stress (100% Strain) | 232 psi                 | 1.60 MPa                | ISO 37      |
| Tensile Stress (300% Strain) | 377 psi                 | 2.60 MPa                | ISO 37      |
| Tensile Stress (Break)       | 986 psi                 | 6.80 MPa                | ISO 37      |
| Tensile Elongation (Break)   | 610 %                   | 610 %                   | ISO 37      |
| Tear Strength                | 140 lbf/in              | 25 kN/m                 | ISO 34-1    |
| Compression Set              |                         |                         | ISO 815     |
| 73°F (23°C), 72.0 hr         | 17 %                    | 17 %                    |             |
| 158°F (70°C), 22.0 hr        | 41 %                    | 41 %                    |             |
| 212°F (100°C), 22.0 hr       | 57 %                    | 57 %                    |             |
| Hardness                     | Typical Value (English) | Typical Value (SI)      | Test Method |
| Shore Hardness (Shore A)     | 50                      | 50                      | 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

<sup>1</sup> Typical values are not to be construed as specifications.

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