



## OnFlex™-S HF 65A-3S1983

### Styrenic Thermoplastic Elastomer

#### Key Characteristics

##### Product Description

OnFlex™-S HF thermoplastic elastomer compounds are based on hydrogenated styrenic block copolymers. This range of compounds utilize a unique, patent pending halogen free flame retardancy system. Furthermore, OnFlex™-S HF compounds offer good mechanical properties, compliance with UL94 V-0, good LOI values, wide hardness range, good processability, and excellent UV stability.

##### General

|                       |                                                   |                                                           |                           |
|-----------------------|---------------------------------------------------|-----------------------------------------------------------|---------------------------|
| Material Status       | • Commercial: Active                              |                                                           |                           |
| Regional Availability | • Africa & Middle East<br>• Asia Pacific          | • Europe<br>• North America                               | • South America           |
| Features              | • Flame Retardant                                 |                                                           |                           |
| Uses                  | • Automotive Applications<br>• Business Equipment | • Electrical/Electronic Applications<br>• General Purpose | • 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                                 | 1.09 g/cm <sup>3</sup>  | 1.09 g/cm <sup>3</sup> | ISO 1183       |
| Elastomers                              | Typical Value (English) | Typical Value (SI)     | Test Method    |
| Tensile Stress (100% Strain)            | 276 psi                 | 1.90 MPa               | ISO 37         |
| Tensile Stress (300% Strain)            | 392 psi                 | 2.70 MPa               | ISO 37         |
| Tensile Stress (Break)                  | 464 psi                 | 3.20 MPa               | ISO 37         |
| Tensile Elongation (Break)              | 400 %                   | 400 %                  | ISO 37         |
| Tear Strength                           | 110 lbf/in              | 20 kN/m                | ISO 34-1       |
| Compression Set                         |                         |                        | ISO 815        |
| 73°F (23°C), 72.0 hr                    | 19 %                    | 19 %                   |                |
| 158°F (70°C), 22.0 hr                   | 46 %                    | 46 %                   |                |
| 212°F (100°C), 22.0 hr                  | 82 %                    | 82 %                   |                |
| Hardness                                | Typical Value (English) | Typical Value (SI)     | Test Method    |
| Shore Hardness (Shore A)                | 65                      | 65                     | ISO 868        |
| Electrical                              | Typical Value (English) | Typical Value (SI)     | Test Method    |
| Comparative Tracking Index              | 600 V                   | 600 V                  | IEC 60112      |
| Flammability                            | Typical Value (English) | Typical Value (SI)     | Test Method    |
| Flame Rating - UL (0.0591 in (1.50 mm)) | V-0                     | V-0                    | UL 94          |
| Glow Wire Flammability Index            |                         |                        | IEC 60695-2-12 |
| 0.0787 in (2.00 mm)                     | 1760 °F                 | 960 °C                 |                |
| Glow Wire Ignition Temperature          |                         |                        | IEC 60695-2-13 |
| 0.0787 in (2.00 mm)                     | 1340 °F                 | 725 °C                 |                |
| Oxygen Index                            | 37 %                    | 37 %                   | ISO 4589-2     |

##### Additional Properties

Properties are measured using injection molded plaques.

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## Processing Information

| Injection              | Typical Value (English) | Typical Value (SI) |
|------------------------|-------------------------|--------------------|
| Drying Temperature     | 176 °F                  | 80.0 °C            |
| Drying Time            | 2.0 hr                  | 2.0 hr             |
| Processing (Melt) Temp | 320 to 356 °F           | 160 to 180 °C      |
| Mold Temperature       | 86.0 to 122 °F          | 30.0 to 50.0 °C    |
| Injection Rate         | Moderate-Fast           | Moderate-Fast      |

## Notes

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

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