# ColorFast® SFT4300

**Product Description** SFT4300 is a standard flow injection molding grade of polyetherimide (PEI) alloy with excellent strength properties, and high chemical and flame resistance. It is suitable for Aerospace applications meeting FAA flammability requirements for FAR 25.853(d) and OSU heat release = 45/45.

**Material Status** Commercial: Active

**Availability** Africa & Middle East, Asia Pacific, Europe, Latin America, North America

**Features** Excellent Colorability

**Uses** Aerospace Applications, Connectors, Consumer Applications, Engineering Parts, Industrial Applications, Industrial Parts, Military/Defense Applications, Outdoor Applications

**Forms** Pellets

**Processing Method** Injection Molding

| Physical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Density / Specific Gravity | 1.30 | g/cm³ | ASTM D792 |
| Melt Mass-Flow Rate (MFR) | | | ASTM D1238 |
| -- [3] | 24 | g/10 min | |
| 295°C/6.6 kg | 3.5 | g/10 min | |
| Molding Shrinkage - Flow (3.18 mm) | 0.50 to 0.70 | % | ASTM D955 |
| Water Absorption (24 hr) | 0.40 | % | ASTM D570 |

| Mechanical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Tensile Strength [4] (Yield) | 93.1 | MPa | ASTM D638 |
| Tensile Elongation [4] (Yield) | 7.0 | % | ASTM D638 |
| Flexural Modulus | 2240 | MPa | ASTM D790 |
| Flexural Strength [4] | 100 | MPa | ASTM D790 |

| Impact | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Notched Izod Impact (23°C) | 110 | J/m | ASTM D256 |

| Thermal | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Deflection Temperature Under Load | | | ASTM D648 |
| 1.8 MPa, Unannealed, 6.40 mm | 168 | °C | |
| Glass Transition Temperature | 186 | °C | ISO 11357-2 |

| Flammability | Nominal Value | Unit | Test Method |
|---|---|---|---|
| OSU Peak Heat Release Rate - 5 minute test (2.00 mm) | < 45.0 | kW/m² | FAR 25.853 |
| OSU Total Heat Release - 2 Minute Test (2.00 mm) | < 45.0 | kW·min/m² | FAR 25.853 |
| Smoke Density | < 200 | | ASTM E662 |

Properties provided are only typical values and Americhem assumes no liability for the customer's use of the information provided. The customer assumes all responsibility for testing determining this products suitability in the customer's specific end application.

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Polyetherimide

| Injection | Nominal Value | Unit |
|---|---|---|
| Drying Temperature | 121 to 132 | °C |
| Drying Time | 4.0 to 6.0 | hr |
| Rear Temperature | 316 to 341 | °C |
| Middle Temperature | 327 to 343 | °C |
| Front Temperature | 332 to 349 | °C |
| Nozzle Temperature | 332 to 349 | °C |
| Processing (Melt) Temp | 332 to 349 | °C |
| Mold Temperature | 121 to 149 | °C |

**Notes**

[1] The property values are based on natural product, values may be affected by coloring of the product.

[2] Typical properties: these are not to be construed as specifications.

[3] 340°C / 5.0kg

[4] 50 mm/min

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