**Technical Data Sheet**

# SCHULADUR® A GF 30 HF2 HI FR1 BLACK

Polybutylene Terephthalate
Engineering Plastics

| Product Description | | | |
|---|---|---|---|
| Flame retardant PBT with 30% glass fiber; high flow, high impact, halogenated | | | |
| **General** | | | |
| Filler / Reinforcement | • Glass Fiber, 30% Filler by Weight | | |
| Features | • Filled<br>• Flame Retardant | • Halogenated<br>• High Flow | • Impact Modified |
| UL File Number | • E86615 | | |
| Processing Method | • Injection Molding | | |
| Resin ID (ISO 1043) | • PBT-I GF30 FR(17) | | |

| Physical | Nominal Value (English) | Nominal Value (SI) | Test Method |
|---|---|---|---|
| Density | 1.58 g/cm³ | 1.58 g/cm³ | ISO 1183/A |
| Melt Volume-Flow Rate (MVR) (260°C/5.0 kg) | 22 cm³/10min | 22 cm³/10min | ISO 1133 |
| **Mechanical** | **Nominal Value (English)** | **Nominal Value (SI)** | **Test Method** |
| Tensile Modulus | 1.33E+6 psi | 9200 MPa | ISO 527-2/1A/1 |
| Tensile Stress (Break) | 17400 psi | 120 MPa | ISO 527-2/1A/5 |
| Tensile Strain (Break) | 2.5 % | 2.5 % | ISO 527-2/1A/5 |
| Flexural Modulus | 1.42E+6 psi | 9800 MPa | ISO 178 |
| Flexural Stress (2.8% Strain) | 28300 psi | 195 MPa | ISO 178 |
| **Impact** | **Nominal Value (English)** | **Nominal Value (SI)** | **Test Method** |
| Charpy Notched Impact Strength | | | ISO 179/1eA |
| -22°F (-30°C) | 3.8 ft·lb/in² | 8.0 kJ/m² | |
| 73°F (23°C) | 4.8 ft·lb/in² | 10 kJ/m² | |
| Charpy Unnotched Impact Strength | | | ISO 179/1eU |
| -22°F (-30°C) | 30 ft·lb/in² | 63 kJ/m² | |
| 73°F (23°C) | 30 ft·lb/in² | 62 kJ/m² | |
| **Thermal** | **Nominal Value (English)** | **Nominal Value (SI)** | **Test Method** |
| Heat Deflection Temperature | | | |
| 66 psi (0.45 MPa), Unannealed | 430 °F | 221 °C | ISO 75-2/Bf |
| 264 psi (1.8 MPa), Unannealed | 399 °F | 204 °C | ISO 75-2/Af |
| Vicat Softening Temperature | | | |
| -- | > 482 °F | > 250 °C | ISO 306/A50 |
| -- | 385 °F | 196 °C | ISO 306/B50 |
| Ball Pressure Test (392°F (200°C)) | Pass | Pass | IEC 60695-10-2 |
| **Electrical** | **Nominal Value (English)** | **Nominal Value (SI)** | **Test Method** |
| Comparative Tracking Index | 300 V | 300 V | IEC 60112 |

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| Flammability | Nominal Value (English) | Nominal Value (SI) | Test Method |
|---|---|---|---|
| Flammability Classification | | | IEC 60695-11-10, -20 |
| 0.06 in (1.5 mm) | V-0 | V-0 | |
| 0.12 in (3.0 mm) | V-0 | V-0 | |
| Glow Wire Flammability Index | | | IEC 60695-2-12 |
| 0.030 in (0.75 mm) | 1760 °F | 960 °C | |
| 0.06 in (1.5 mm) | 1760 °F | 960 °C | |
| 0.12 in (3.0 mm) | 1760 °F | 960 °C | |
| Glow Wire Ignition Temperature | | | IEC 60695-2-13 |
| 0.030 in (0.75 mm) | 1340 °F | 725 °C | |
| 0.06 in (1.5 mm) | 1340 °F | 725 °C | |
| 0.12 in (3.0 mm) | 1340 °F | 725 °C | |
| Oxygen Index | 30 % | 30 % | ISO 4589-2 |

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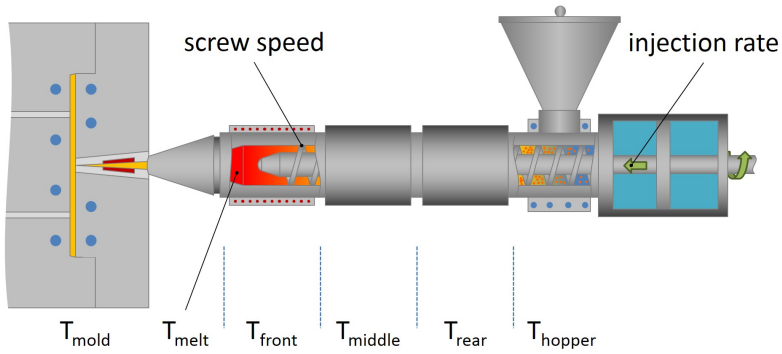


| Injection | Nominal Value (English) | Nominal Value (SI) |
|---|---|---|
| Drying Temperature | 248 °F | 120 °C |
| Drying Time | 2.0 to 4.0 hr | 2.0 to 4.0 hr |
| Suggested Max Moisture | 0.02 % | 0.02 % |
| Suggested Max Regrind | 25 % | 25 % |
| Processing (Melt) Temp | 482 to 500 °F | 250 to 260 °C |
| Mold Temperature | 158 to 194 °F | 70 to 90 °C |
| Injection Rate | Slow-Moderate | Slow-Moderate |
| Back Pressure | 290 to 1160 psi | 2.00 to 8.00 MPa |
| Screw Speed | < 591 in/min | < 15 m/min |
| **Injection Notes** | | |
| Mould surfaces in contact with melt should be of non-corrosive steel, chrome content >12% | | |

**Notes**

These are typical property values not to be construed as specification limits.