

Technical Data Sheet

SCHULADUR[®] A3 GF 30 LM

Polybutylene Terephthalate + ASA
Engineering Plastics

Product Description

30% glass fibre reinforced lasermarkable PBT/ASA-blend with high surface quality and reduced warpage

General

| | |
|------------------------|-------------------------------------|
| Filler / Reinforcement | • Glass Fiber, 30% Filler by Weight |
| Features | • Good Surface Finish • Low Warpage |
| Processing Method | • Injection Molding |
| Resin ID (ISO 1043) | • PBT+ASA GF30 |

| Physical | Nominal Value (English) | Nominal Value (SI) | Test Method |
|--|---------------------------|---------------------------|-------------|
| Density | 1.43 g/cm ³ | 1.43 g/cm ³ | ISO 1183/A |
| Melt Volume-Flow Rate (MVR) (250°C/5.0 kg) | 20 cm ³ /10min | 20 cm ³ /10min | ISO 1133 |

| Mechanical | Nominal Value (English) | Nominal Value (SI) | Test Method |
|--|-------------------------|--------------------|----------------|
| Tensile Modulus | 1.38E+6 psi | 9500 MPa | ISO 527-2/1A/1 |
| Tensile Stress (Break) | 16700 psi | 115 MPa | ISO 527-2/1A/5 |
| Tensile Strain (Break) | 2.0 % | 2.0 % | ISO 527-2/1A/5 |
| Flexural Modulus ¹ | 1.52E+6 psi | 10500 MPa | ISO 178 |
| Flexural Stress ¹ (2.5% Strain) | 29700 psi | 205 MPa | ISO 178 |

| Impact | Nominal Value (English) | Nominal Value (SI) | Test Method |
|----------------------------------|---------------------------|-----------------------|-------------|
| Charpy Notched Impact Strength | | | ISO 179/1eA |
| -22°F (-30°C) | 3.3 ft·lb/in ² | 7.0 kJ/m ² | |
| 73°F (23°C) | 3.3 ft·lb/in ² | 7.0 kJ/m ² | |
| Charpy Unnotched Impact Strength | | | ISO 179/1eU |
| -22°F (-30°C) | 23 ft·lb/in ² | 48 kJ/m ² | |
| 73°F (23°C) | 24 ft·lb/in ² | 50 kJ/m ² | |

| Thermal | Nominal Value (English) | Nominal Value (SI) | Test Method |
|-------------------------------|-------------------------|--------------------|-------------|
| Heat Deflection Temperature | | | |
| 66 psi (0.45 MPa), Unannealed | 419 °F | 215 °C | ISO 75-2/Bf |
| 264 psi (1.8 MPa), Unannealed | 347 °F | 175 °C | ISO 75-2/Af |
| Vicat Softening Temperature | | | |
| -- | 410 °F | 210 °C | ISO 306/A50 |
| -- | 284 °F | 140 °C | ISO 306/B50 |

| Flammability | Nominal Value (English) | Nominal Value (SI) | Test Method |
|---------------------|-------------------------|--------------------|-------------|
| Burning Rate | | | |
| 0.0787 in (2.00 mm) | 1.2 in/min | 30 mm/min | ISO 3795 |
| 0.0787 in (2.00 mm) | 1.2 in/min | 30 mm/min | FMVSS 302 |

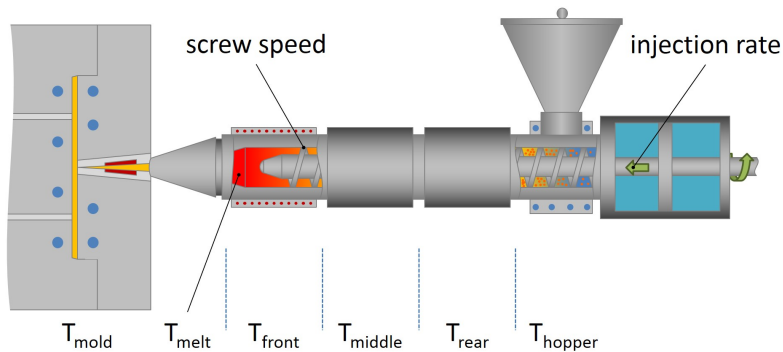
Additional Information

- 1.) Not for use in food contact applications
- 2.) Not for use in medical or pharmaceutical applications

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| Injection | Nominal Value (English) | Nominal Value (SI) |
|------------------------|-------------------------|--------------------|
| Drying Temperature | 212 °F | 100 °C |
| Drying Time | 2.0 to 4.0 hr | 2.0 to 4.0 hr |
| Suggested Max Moisture | 0.05 % | 0.05 % |
| Suggested Max Regrind | 20 % | 20 % |
| Hopper Temperature | 158 °F | 70 °C |
| Rear Temperature | 446 °F | 230 °C |
| Middle Temperature | 473 °F | 245 °C |
| Front Temperature | 500 °F | 260 °C |
| Nozzle Temperature | 500 °F | 260 °C |
| Processing (Melt) Temp | 482 to 500 °F | 250 to 260 °C |
| Mold Temperature | 140 to 194 °F | 60 to 90 °C |
| Injection Pressure | 11600 to 17400 psi | 80.0 to 120 MPa |
| Injection Rate | Moderate-Fast | Moderate-Fast |
| Holding Pressure | 5800 to 10200 psi | 40.0 to 70.0 MPa |
| Back Pressure | 725 to 1450 psi | 5.00 to 10.0 MPa |
| Cushion | 0.0787 to 0.197 in | 2.00 to 5.00 mm |
| Vent Depth | 7.9E-4 in | 0.020 mm |

Notes

¹ 0.079 in/min (2.0 mm/min)

Notes

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