

## Technical Data Sheet

### Schulamid 66 GF30 HE LW BLK968069



Polyamide 66

#### Product Description

30% glass fiber reinforced and heat stabilized polyamide 66-compound, electrical neutral, transparent for laser light of laser welding processes

**Processing Method** Injection Molding

**Filler/Reinforcement** Glass Fiber, 30%

| Typical Properties                               | Nominal Value | Units              | Test Method |
|--------------------------------------------------|---------------|--------------------|-------------|
| <b>Physical</b>                                  |               |                    |             |
| Density, (Method A)                              | 1.37          | g/cm <sup>3</sup>  | ISO 1183    |
| Viscosity Number                                 | 160           | cm <sup>3</sup> /g | ISO 307     |
| <b>Mechanical</b>                                |               |                    |             |
| Flexural Strain at Flexural Strength             | 4.5           | %                  | ISO 178     |
| Tensile Strain at Break                          |               |                    |             |
| (Type 1A, 5 mm/min)                              | 3.5           | %                  | ISO 527-2   |
| (Type 1A, 5 mm/min) - Conditioned                | 8.0           | %                  | ISO 527-2   |
| Flexural Modulus, (2.0 mm/min)                   | 8200          | MPa                | ISO 178     |
| Tensile Stress at Break                          |               |                    |             |
| (Type 1A, 5 mm/min)                              | 180           | MPa                | ISO 527-2   |
| (Type 1A, 5 mm/min) - Conditioned                | 96.0          | MPa                | ISO 527-2   |
| Tensile Modulus                                  |               |                    |             |
| (1 mm/min, Type 1A)                              | 9800          | MPa                | ISO 527-1   |
| (1 mm/min, Type 1A) - Conditioned                | 5800          | MPa                | ISO 527-1   |
| Flexural Stress, (2.0 mm/min)                    | 270           | MPa                | ISO 178     |
| <b>Impact</b>                                    |               |                    |             |
| Charpy Impact Strength - Notched                 |               |                    |             |
| (23 °C, Type 1, Edgewise, Notch A)               | 12            | kJ/m <sup>2</sup>  | ISO 179     |
| (-30 °C, Type 1, Edgewise, Notch A)              | 9.0           | kJ/m <sup>2</sup>  | ISO 179     |
| (23 °C, Type 1, Edgewise, Notch A) - Conditioned | 15            | kJ/m <sup>2</sup>  | ISO 179     |
| Charpy Impact Strength - Unnotched               |               |                    |             |
| (23 °C, Type 1, Edgewise)                        | 85            | kJ/m <sup>2</sup>  | ISO 179     |
| (-30 °C, Type 1, Edgewise)                       | 70            | kJ/m <sup>2</sup>  | ISO 179     |
| (23 °C, Type 1, Edgewise) - Conditioned          | 78            | kJ/m <sup>2</sup>  | ISO 179     |
| <b>Thermal</b>                                   |               |                    |             |
| Vicat Softening Temperature                      |               |                    |             |
| (B (50N), 50 °C/h)                               | >250          | °C                 | ISO 306     |
| (A (10N), 50 °C/h)                               | >250          | °C                 | ISO 306     |

|                                                                        |      |    |            |
|------------------------------------------------------------------------|------|----|------------|
| Deflection Temperature Under Load Unannealed (0.45 MPa),<br>(Flatwise) | >250 | °C | ISO 75-2/B |
| Deflection Temperature Under Load Unannealed (1.80 MPa),<br>(Flatwise) | 240  | °C | ISO 75-2/A |

#### Flammable

|                                |     |        |                |
|--------------------------------|-----|--------|----------------|
| Burning Rate                   |     |        |                |
| (2.00 mm)                      | 30  | mm/min | FMVSS 302      |
| (2.00 mm)                      | 30  | mm/min | ISO 3795       |
| Glow Wire Flammability Index   |     |        |                |
| (1.5 mm)                       | 650 | °C     | IEC 60695-2-12 |
| (3.0 mm)                       | 675 | °C     | IEC 60695-2-12 |
| Glow Wire Ignition Temperature |     |        |                |
| (1.5 mm)                       | 675 | °C     | IEC 60695-2-13 |
| (3.0 mm)                       | 700 | °C     | IEC 60695-2-13 |

#### UL Information

|                             |    |  |                      |
|-----------------------------|----|--|----------------------|
| Flammability Classification |    |  |                      |
| (1.5 mm)                    | HB |  | IEC 60695-11-10, -20 |
| (3.0 mm)                    | HB |  | IEC 60695-11-10, -20 |

| Injection Parameters   |  | Nominal Value | Units |
|------------------------|--|---------------|-------|
| Drying Time            |  | 3.0 to 4.0    | hr    |
| Drying Temperature     |  | 80            | °C    |
| Suggested Max Moisture |  | 0.040 to 0.10 | %     |
| Processing (Melt) Temp |  | 280 to 300    | °C    |
| Mold Temperature       |  | 60 to 120     | °C    |