

## Technical Data Sheet

### Schulamid 6 GF 35 S1 BLK 968001



Polyamide 6

#### Product Description

35% glass fiber reinforced Polyamide 6

|                      |                                                         |
|----------------------|---------------------------------------------------------|
| Processing Method    | Injection Molding                                       |
| Attribute            | Good Flow; High Stiffness; High Strength; Oil Resistant |
| Filler/Reinforcement | Glass Fiber, 35%                                        |
| Resin ID             | PA6-GF35                                                |

| Typical Properties                               | Nominal Value | Units              | Test Method    |
|--------------------------------------------------|---------------|--------------------|----------------|
| <b>Physical</b>                                  |               |                    |                |
| Density, (Method A)                              | 1.41          | g/cm <sup>3</sup>  | ISO 1183       |
| Viscosity Number                                 | 145           | cm <sup>3</sup> /g | ISO 307        |
| <b>Mechanical</b>                                |               |                    |                |
| Tensile Strain at Break                          |               |                    |                |
| (Type 1A, 5 mm/min)                              | 3.4           | %                  | ISO 527-2      |
| (Type 1A, 5 mm/min) - Conditioned                | 6.0           | %                  | ISO 527-2      |
| Tensile Stress at Break                          |               |                    |                |
| (Type 1A, 5 mm/min)                              | 180           | MPa                | ISO 527-2      |
| (Type 1A, 5 mm/min) - Conditioned                | 110           | MPa                | ISO 527-2      |
| Tensile Modulus                                  |               |                    |                |
| (1 mm/min, Type 1A)                              | 11000         | MPa                | ISO 527-1      |
| (1 mm/min, Type 1A) - Conditioned                | 7000          | MPa                | ISO 527-1      |
| <b>Impact</b>                                    |               |                    |                |
| Charpy Impact Strength - Notched                 |               |                    |                |
| (23 °C, Type 1, Edgewise, Notch A)               | 15            | kJ/m <sup>2</sup>  | ISO 179        |
| (-30 °C, Type 1, Edgewise, Notch A)              | 10            | kJ/m <sup>2</sup>  | ISO 179        |
| (23 °C, Type 1, Edgewise, Notch A) - Conditioned | 32            | kJ/m <sup>2</sup>  | ISO 179        |
| Charpy Impact Strength - Unnotched               |               |                    |                |
| (23 °C, Type 1, Edgewise)                        | 90            | 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          | No Break      |                    | ISO 179        |
| <b>Hardness</b>                                  |               |                    |                |
| Ball Indentation Hardness, (H 358/30)            | 230           | MPa                | ISO 2039-1     |
| Ball Pressure Test, (150 °C)                     | Pass          |                    | IEC 60695-10-2 |
| <b>Thermal</b>                                   |               |                    |                |
| Vicat Softening Temperature, (B (50N), 50 °C/h)  | 210           | °C                 | ISO 306        |

|                                                                        |     |    |            |
|------------------------------------------------------------------------|-----|----|------------|
| Deflection Temperature Under Load Unannealed (0.45 MPa),<br>(Flatwise) | 220 | °C | ISO 75-2/B |
| Deflection Temperature Under Load Unannealed (1.80 MPa),<br>(Flatwise) | 210 | °C | ISO 75-2/A |

#### Electrical

|                                  |          |       |               |
|----------------------------------|----------|-------|---------------|
| Volume Resistivity               | >1.0E+13 | ohm*m | IEC 62631-3-1 |
| - Conditioned                    | >1.0E+10 | ohm*m | IEC 62631-3-1 |
| Comparative Tracking Index (CTI) | 450      | V     | IEC 60112     |
| Surface Resistivity              | >1.0E+15 | ohm   | IEC 60093     |
| - Conditioned                    | >1.0E+12 | ohm   | IEC 60093     |

#### Flammable

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

#### UL Information

|                             |        |  |                      |
|-----------------------------|--------|--|----------------------|
| Flammability Classification |        |  |                      |
| (1.5 mm)                    | HB     |  | IEC 60695-11-10, -20 |
| (3.0 mm)                    | HB     |  | IEC 60695-11-10, -20 |
| UL File Number              | E86615 |  |                      |

| 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 | 250 to 280    | °C    |
| Mold Temperature       | 60 to 100     | °C    |