

## Technical Data Sheet

### Schulamid 6 GF15 HI U BLK968113

Polyamide 6

#### Product Description

15% glass fiber reinforced and impact modified Polyamide 6

**Processing Method** Injection Molding

**Attribute** Good Processability; Good Toughness; High Impact Resistance; Oil Resistant

**Filler/Reinforcement** Glass Fiber, 15%

**Resin ID** PA6I-GF15

| Typical Properties                               | Nominal Value | Units              | Test Method |
|--------------------------------------------------|---------------|--------------------|-------------|
| <b>Physical</b>                                  |               |                    |             |
| Density, (Method A)                              | 1.20          | 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)                              | 5.0           | %                  | ISO 527-2   |
| (Type 1A, 5 mm/min) - Conditioned                | 15            | %                  | ISO 527-2   |
| Tensile Stress at Break                          |               |                    |             |
| (Type 1A, 5 mm/min)                              | 100           | MPa                | ISO 527-2   |
| (Type 1A, 5 mm/min) - Conditioned                | 60.0          | MPa                | ISO 527-2   |
| Tensile Modulus                                  |               |                    |             |
| (1 mm/min, Type 1A)                              | 5000          | MPa                | ISO 527-1   |
| (1 mm/min, Type 1A) - Conditioned                | 2600          | MPa                | ISO 527-1   |
| <b>Impact</b>                                    |               |                    |             |
| Charpy Impact Strength - Notched                 |               |                    |             |
| (23 °C, Type 1, Edgewise, Notch A)               | 16            | kJ/m <sup>2</sup>  | ISO 179     |
| (-30 °C, Type 1, Edgewise, Notch A)              | 7.0           | kJ/m <sup>2</sup>  | ISO 179     |
| (23 °C, Type 1, Edgewise, Notch A) - Conditioned | 24            | kJ/m <sup>2</sup>  | ISO 179     |
| Charpy Impact Strength - Unnotched               |               |                    |             |
| (23 °C, Type 1, Edgewise)                        | 70            | kJ/m <sup>2</sup>  | ISO 179     |
| (-30 °C, Type 1, Edgewise)                       | 56            | kJ/m <sup>2</sup>  | ISO 179     |
| (23 °C, Type 1, Edgewise) - Conditioned          | No Break      |                    | ISO 179     |
| <b>Thermal</b>                                   |               |                    |             |
| Vicat Softening Temperature                      |               |                    |             |
| (B (50N), 50 °C/h)                               | 205           | °C                 | ISO 306     |
| (A (10N), 50 °C/h)                               | 215           | °C                 | ISO 306     |

|                                                                        |     |    |            |
|------------------------------------------------------------------------|-----|----|------------|
| Deflection Temperature Under Load Unannealed (0.45 MPa),<br>(Flatwise) | 210 | °C | ISO 75-2/B |
| Deflection Temperature Under Load Unannealed (1.80 MPa),<br>(Flatwise) | 190 | °C | ISO 75-2/A |

#### Electrical

|                     |                    |       |               |
|---------------------|--------------------|-------|---------------|
| Volume Resistivity  | 1000000000<br>0000 | ohm*m | IEC 62631-3-1 |
| - Conditioned       | 1000000000<br>0    | ohm*m | IEC 62631-3-1 |
| Surface Resistivity | 1E+15              | ohm   | IEC 60093     |
| - Conditioned       | 1000000000<br>000  | ohm   | IEC 60093     |

#### Flammable

|                              |     |        |                |
|------------------------------|-----|--------|----------------|
| Burning Rate                 |     |        |                |
| (2.00 mm)                    | 50  | mm/min | FMVSS 302      |
| (2.00 mm)                    | 50  | mm/min | ISO 3795       |
| Glow Wire Flammability Index |     |        |                |
| (1.5 mm)                     | 650 | °C     | IEC 60695-2-12 |
| (3.0 mm)                     | 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 |

| Injection Parameters   | Nominal Value    | Units |
|------------------------|------------------|-------|
| Drying Time            | 3.0 to 4.0       | hr    |
| Drying Temperature     | 80               | °C    |
| Suggested Max Moisture | 0.040 to<br>0.10 | %     |
| Processing (Melt) Temp | 250 to 280       | °C    |
| Mold Temperature       | 60 to 100        | °C    |