

## Technical Data Sheet

### Schulamid 6 GF 15 LS SOUL 6PS



Polyamide 6

#### Product Description

15% glass fibre reinforced Polyamide 6

|                      |                                               |
|----------------------|-----------------------------------------------|
| Processing Method    | Injection Molding                             |
| Attribute            | Good Flow; Good Surface Finish; Oil Resistant |
| Filler/Reinforcement | Glass Fiber, 15%                              |
| Resin ID             | PA6 GF15                                      |

| Typical Properties                               | Nominal Value | Units              | Test Method |
|--------------------------------------------------|---------------|--------------------|-------------|
| <b>Physical</b>                                  |               |                    |             |
| Density, (Method A)                              | 1.23          | g/cm <sup>3</sup>  | ISO 1183    |
| Viscosity Number                                 | 145           | cm <sup>3</sup> /g | ISO 307     |
| <b>Mechanical</b>                                |               |                    |             |
| Flexural Strain at Flexural Strength             | 6.5           | %                  | ISO 178     |
| Tensile Strain at Break                          |               |                    |             |
| (Type 1A, 5 mm/min)                              | 3.5           | %                  | ISO 527-2   |
| (Type 1A, 5 mm/min) - Conditioned                | 15            | %                  | ISO 527-2   |
| Flexural Modulus, (2.0 mm/min)                   | 4300          | MPa                | ISO 178     |
| Tensile Stress at Break                          |               |                    |             |
| (Type 1A, 5 mm/min)                              | 130           | MPa                | ISO 527-2   |
| (Type 1A, 5 mm/min) - Conditioned                | 70.0          | MPa                | ISO 527-2   |
| Tensile Modulus                                  |               |                    |             |
| (1 mm/min, Type 1A)                              | 5800          | MPa                | ISO 527-1   |
| (1 mm/min, Type 1A) - Conditioned                | 3000          | MPa                | ISO 527-1   |
| Flexural Stress, (2.0 mm/min)                    | 170           | MPa                | ISO 178     |
| <b>Impact</b>                                    |               |                    |             |
| Charpy Impact Strength - Notched                 |               |                    |             |
| (23 °C, Type 1, Edgewise, Notch A)               | 7.0           | kJ/m <sup>2</sup>  | ISO 179     |
| (-30 °C, Type 1, Edgewise, Notch A)              | 5.0           | 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)                        | 45            | kJ/m <sup>2</sup>  | ISO 179     |
| (-30 °C, Type 1, Edgewise)                       | 40            | 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)            | 174           | MPa                | ISO 2039-1  |

#### Thermal

|                                                                     |     |    |            |
|---------------------------------------------------------------------|-----|----|------------|
| Vicat Softening Temperature                                         |     |    |            |
| (B (50N), 50 °C/h)                                                  | 210 | °C | ISO 306    |
| (A (10N), 50 °C/h)                                                  | 215 | °C | ISO 306    |
| Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise) | 210 | °C | ISO 75-2/B |
| Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise) | 200 | °C | ISO 75-2/A |

#### Flammable

|                              |     |        |                |
|------------------------------|-----|--------|----------------|
| Burning Rate                 |     |        |                |
| (2.00 mm)                    | 43  | mm/min | FMVSS 302      |
| (2.00 mm)                    | 43  | mm/min | ISO 3795       |
| 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 |        |  |                      |
| (0.75 mm)                   | HB     |  | IEC 60695-11-10, -20 |
| (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    |