

## Technical Data Sheet

### Schulamid 6 GF 30 LW NAT

Polyamide 6

#### Product Description

Schulamid 6 GF 30 LW NAT is a Polyamide 6 Glass Fiber, 30% filled material and is typically used in Injection Molding applications. Features include: Good Toughness, High Stiffness, and Oil Resistant.

|                      |                                               |
|----------------------|-----------------------------------------------|
| Processing Method    | Injection Molding                             |
| Attribute            | Good Toughness; High Stiffness; Oil Resistant |
| Filler/Reinforcement | Glass Fiber, 30%                              |
| Resin ID             | PA6-GF30                                      |

| Typical Properties                                                  | Nominal Value | Units              | Test Method |
|---------------------------------------------------------------------|---------------|--------------------|-------------|
| <b>Physical</b>                                                     |               |                    |             |
| Density, (Method A)                                                 | 1.35          | 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)                                                 | 3.5           | %                  | ISO 527-2   |
| (Type 1A, 5 mm/min) - Conditioned                                   | 8.0           | %                  | ISO 527-2   |
| Tensile Stress at Break                                             |               |                    |             |
| (Type 1A, 5 mm/min)                                                 | 170           | MPa                | ISO 527-2   |
| (Type 1A, 5 mm/min) - Conditioned                                   | 100           | MPa                | ISO 527-2   |
| Tensile Modulus                                                     |               |                    |             |
| (1 mm/min, Type 1A)                                                 | 9500          | MPa                | ISO 527-1   |
| (1 mm/min, Type 1A) - Conditioned                                   | 5000          | MPa                | ISO 527-1   |
| <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                    | 30            | kJ/m <sup>2</sup>  | ISO 179     |
| Charpy Impact Strength - Unnotched                                  |               |                    |             |
| (23 °C, Type 1, Edgewise)                                           | 80            | kJ/m <sup>2</sup>  | ISO 179     |
| (-30 °C, Type 1, Edgewise)                                          | 60            | 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)                     | 210           | °C                 | ISO 306     |
| Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise) | 215           | °C                 | ISO 75-2/B  |
| Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise) | 200           | °C                 | ISO 75-2/A  |

|                               |        |        |                      |
|-------------------------------|--------|--------|----------------------|
| <b>Flammable</b>              |        |        |                      |
| Burning Rate                  |        |        |                      |
| (2.00 mm)                     | 40     | mm/min | FMVSS 302            |
| (2.00 mm)                     | 40     | 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       |
| <b>Additional Information</b> |        |        |                      |
| Water Absorption 23C/50RH     | 2      | %      | ISO 62               |
| <b>UL Information</b>         |        |        |                      |
| Flammability Classification   |        |        |                      |
| (1.5 mm)                      | HB     |        | IEC 60695-11-10, -20 |
| (3.0 mm)                      | HB     |        | IEC 60695-11-10, -20 |
| UL File Number                | E86615 |        |                      |

| <b>Injection Parameters</b> |  | <b>Nominal Value</b> | <b>Units</b> |
|-----------------------------|--|----------------------|--------------|
| 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           |