

## Technical Data Sheet

### Schulamid 6 GF25 H NAT



Polyamide 6

#### Product Description

25% glass fibre reinforced PA 6, heat stabilized

|                      |                   |
|----------------------|-------------------|
| Processing Method    | Injection Molding |
| Attribute            | Heat Stabilized   |
| Additive             | Heat Stabilizer   |
| Filler/Reinforcement | Glass Fiber, 25%  |

| Typical Properties                               | Nominal Value | Units              | Test Method |
|--------------------------------------------------|---------------|--------------------|-------------|
| <b>Physical</b>                                  |               |                    |             |
| Density, (Method A)                              | 1.32          | 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                | 7.5           | %                  | ISO 527-2   |
| Flexural Modulus                                 |               |                    |             |
| (2.0 mm/min)                                     | 8000          | MPa                | ISO 178     |
| (2.0 mm/min) - Conditioned                       | 4600          | MPa                | ISO 178     |
| Tensile Stress at Break                          |               |                    |             |
| (Type 1A, 5 mm/min)                              | 152           | MPa                | ISO 527-2   |
| (Type 1A, 5 mm/min) - Conditioned                | 90.0          | MPa                | ISO 527-2   |
| Tensile Modulus                                  |               |                    |             |
| (1 mm/min, Type 1A)                              | 8500          | MPa                | ISO 527-1   |
| (1 mm/min, Type 1A) - Conditioned                | 4800          | MPa                | ISO 527-1   |
| Flexural Stress                                  |               |                    |             |
| (2.0 mm/min, 3.5%)                               | 240           | MPa                | ISO 178     |
| (2.0 mm/min, 3.5%) - Conditioned                 | 125           | MPa                | ISO 178     |
| <b>Impact</b>                                    |               |                    |             |
| Charpy Impact Strength - Notched                 |               |                    |             |
| (23 °C, Type 1, Edgewise, Notch A)               | 8.0           | 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 | 15            | kJ/m <sup>2</sup>  | ISO 179     |

|                                                                     |             |                   |                      |
|---------------------------------------------------------------------|-------------|-------------------|----------------------|
| Charpy Impact Strength - Unnotched                                  |             |                   |                      |
| (23 °C, Type 1, Edgewise)                                           | 60          | kJ/m <sup>2</sup> | ISO 179              |
| (-30 °C, Type 1, Edgewise)                                          | 50          | kJ/m <sup>2</sup> | ISO 179              |
| (23 °C, Type 1, Edgewise) - Conditioned                             | No Break    |                   | ISO 179              |
| <b>Hardness</b>                                                     |             |                   |                      |
| Ball Indentation Hardness, (H 961/30)                               | 240         | MPa               | ISO 2039-1           |
| <b>Thermal</b>                                                      |             |                   |                      |
| Vicat Softening Temperature                                         |             |                   |                      |
| (B (50N), 50 °C/h)                                                  | 210         | °C                | ISO 306              |
| (A (10N), 120 °C/h)                                                 | 218         | °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           |
| RTI Elec                                                            |             |                   |                      |
| (1.5 mm)                                                            | 125         | °C                | UL 746B              |
| (3.0 mm)                                                            | 125         | °C                | UL 746B              |
| (0.75 mm)                                                           | 125         | °C                | UL 746B              |
| RTI Imp                                                             |             |                   |                      |
| (1.5 mm)                                                            | 120         | °C                | UL 746B              |
| (3.0 mm)                                                            | 125         | °C                | UL 746B              |
| (0.75 mm)                                                           | 115         | °C                | UL 746B              |
| RTI Str                                                             |             |                   |                      |
| (1.5 mm)                                                            | 130         | °C                | UL 746B              |
| (3.0 mm)                                                            | 130         | °C                | UL 746B              |
| (0.75 mm)                                                           | 130         | °C                | UL 746B              |
| <b>Electrical</b>                                                   |             |                   |                      |
| Volume Resistivity                                                  | >1.0E+13    | ohm*m             | IEC 62631-3-1        |
| - Conditioned                                                       | 10000000000 | ohm*m             | IEC 62631-3-1        |
| Comparative Tracking Index (CTI)                                    | 450         | V                 | IEC 60112            |
| Surface Resistivity                                                 | >1.0E+15    | ohm               | IEC 60093            |
| - Conditioned                                                       | 10000000000 | ohm               | IEC 60093            |
| <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)                                                            | 650         | °C                | IEC 60695-2-12       |
| (3.0 mm)                                                            | 650         | °C                | IEC 60695-2-12       |
| Glow Wire Ignition Temperature                                      |             |                   |                      |
| (1.5 mm)                                                            | 675         | °C                | IEC 60695-2-13       |
| (3.0 mm)                                                            | 675         | °C                | IEC 60695-2-13       |
| <b>Additional Information</b>                                       |             |                   |                      |
| Water Absorption 23C/50RH                                           | 1.9         | %                 | ISO 62               |
| <b>UL Information</b>                                               |             |                   |                      |
| 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 |

| 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    |