

## Technical Data Sheet

**Schulamid 6 GF40 GRY 967956**

Polyamide 6

**Product Description**

40% glass fiber reinforced polyamid 6 compound

**Processing Method** Injection Molding**Filler/Reinforcement** Glass Fiber, 40%**Resin ID** PA6 GF40

| Typical Properties                               | Nominal Value | Units              | Test Method |
|--|---------------|--------------------|-------------|
| <b>Physical</b>                                  |               |                    |             |
| Density, (Method A)                              | 1.45          | 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             | 3.5           | %                  | ISO 178     |
| Tensile Strain at Break                          |               |                    |             |
| (Type 1A, 5 mm/min)                              | 2.8           | %                  | ISO 527-2   |
| (Type 1A, 5 mm/min) - Conditioned                | 6.3           | %                  | ISO 527-2   |
| Flexural Modulus, (2.0 mm/min)                   | 12000         | MPa                | ISO 178     |
| Tensile Stress at Break                          |               |                    |             |
| (Type 1A, 5 mm/min)                              | 200           | MPa                | ISO 527-2   |
| (Type 1A, 5 mm/min) - Conditioned                | 128           | MPa                | ISO 527-2   |
| Tensile Modulus                                  |               |                    |             |
| (1 mm/min, Type 1A)                              | 14000         | MPa                | ISO 527-1   |
| (1 mm/min, Type 1A) - Conditioned                | 8500          | MPa                | ISO 527-1   |
| Flexural Stress, (2.0 mm/min)                    | 300           | MPa                | ISO 178     |
| <b>Impact</b>                                    |               |                    |             |
| Charpy Impact Strength - Notched                 |               |                    |             |
| (23 °C, Type 1, Edgewise, Notch A)               | 14            | 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 | 22            | kJ/m <sup>2</sup>  | ISO 179     |
| Charpy Impact Strength - Unnotched               |               |                    |             |
| (23 °C, Type 1, Edgewise)                        | 94            | kJ/m <sup>2</sup>  | ISO 179     |
| (-30 °C, Type 1, Edgewise)                       | 86            | 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)                               | 212           | °C                 | ISO 306     |
| (A (10N), 50 °C/h)                               | 216           | °C                 | ISO 306     |

|  |             |            |
|--|-------------|------------|
| Deflection Temperature Under Load Unannealed (0.45 MPa),<br>(Flatwise) | 215 °C      | ISO 75-2/B |
| Deflection Temperature Under Load Unannealed (1.80 MPa),<br>(Flatwise) | 205 °C      | ISO 75-2/A |
| <b>Flammable</b>   |             |            |
| Burning Rate   |             |            |
| (2.00 mm)  | <100 mm/min | ISO 3795   |
| (2.00 mm)  | <100 mm/min | FMVSS 302  |

| <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<br>0.10     | %            |
| Processing (Melt) Temp      | 250 to 280           | °C           |
| Mold Temperature            | 60 to 100            | °C           |