

## Technical Data Sheet

### Schulamid 6 GBF3010 H BLK968079



Polyamide 6

#### Product Description

30% glass fiber and glass bead reinforced Polyamide 6 with higher stiffness and dimension stability

|                             |                                                                                        |
|-----------------------------|----------------------------------------------------------------------------------------|
| <b>Processing Method</b>    | Injection Molding                                                                      |
| <b>Attribute</b>            | Good Flow; Good Heat Aging Resistance; Good Surface Finish; Low Warpage; Oil Resistant |
| <b>Filler/Reinforcement</b> | Glass Bead\Glass Fiber, 30%                                                            |
| <b>Resin ID</b>             | PA6-(GB20+GF10)                                                                        |

| 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                | 12            | %                  | ISO 527-2      |
| Tensile Stress at Break                          |               |                    |                |
| (Type 1A, 5 mm/min)                              | 110           | MPa                | ISO 527-2      |
| (Type 1A, 5 mm/min) - Conditioned                | 55.0          | MPa                | ISO 527-2      |
| Tensile Modulus                                  |               |                    |                |
| (1 mm/min, Type 1A)                              | 6000          | MPa                | ISO 527-1      |
| (1 mm/min, Type 1A) - Conditioned                | 3000          | MPa                | ISO 527-1      |
| <b>Impact</b>                                    |               |                    |                |
| Charpy Impact Strength - Notched                 |               |                    |                |
| (23 °C, Type 1, Edgewise, Notch A)               | 4.0           | kJ/m <sup>2</sup>  | ISO 179        |
| (-30 °C, Type 1, Edgewise, Notch A)              | 3.5           | kJ/m <sup>2</sup>  | ISO 179        |
| (23 °C, Type 1, Edgewise, Notch A) - Conditioned | 12            | kJ/m <sup>2</sup>  | ISO 179        |
| Charpy Impact Strength - Unnotched               |               |                    |                |
| (23 °C, Type 1, Edgewise)                        | 35            | kJ/m <sup>2</sup>  | ISO 179        |
| (-30 °C, Type 1, Edgewise)                       | 30            | kJ/m <sup>2</sup>  | ISO 179        |
| (23 °C, Type 1, Edgewise) - Conditioned          | 90            | kJ/m <sup>2</sup>  | ISO 179        |
| <b>Hardness</b>                                  |               |                    |                |
| Ball Indentation Hardness                        |               |                    |                |
| (H 358/30)                                       | 175           | MPa                | ISO 2039-1     |
| (H 358/30) - Conditioned                         | 115           | MPa                | ISO 2039-1     |
| Ball Pressure Test, (115 °C)                     | Pass          |                    | IEC 60695-10-2 |

### Thermal

|                                                                     |     |    |            |
|---------------------------------------------------------------------|-----|----|------------|
| Vicat Softening Temperature                                         |     |    |            |
| (B (50N), 50 °C/h)                                                  | 210 | °C | ISO 306    |
| (A (10N), 50 °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) | 190 | °C | ISO 75-2/A |

### Electrical

|                                  |          |       |               |
|----------------------------------|----------|-------|---------------|
| Volume Resistivity               | >1.0E+13 | ohm*m | IEC 62631-3-1 |
| - Conditioned                    | >1.0E+10 | ohm*m | IEC 62631-3-1 |
| Comparative Tracking Index (CTI) | 450      | V     | IEC 60112     |
| Surface Resistivity              | >1.0E+15 | ohm   | IEC 60093     |
| - Conditioned                    | >1.0E+12 | ohm   | IEC 60093     |

### Flammable

|              |      |        |           |
|--------------|------|--------|-----------|
| Burning Rate |      |        |           |
| (2.00 mm)    | <100 | mm/min | FMVSS 302 |
| (2.00 mm)    | <100 | mm/min | ISO 3795  |

### Additional Information

|                           |     |   |        |
|---------------------------|-----|---|--------|
| Water Absorption 23C/50RH | 1.7 | % | ISO 62 |
|---------------------------|-----|---|--------|

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