

## Technical Data Sheet

### Schuladur A3 GF 30 NAT

Polybutylene Terephthalate + ASA

#### Product Description

30% glass fibre reinforced, warpage optimized PBT/ASA compound providing high surface quality

|                      |                                  |
|----------------------|----------------------------------|
| Processing Method    | Injection Molding                |
| Attribute            | Good Surface Finish; Low Warpage |
| Filler/Reinforcement | Glass Fiber, 30%                 |

| Typical Properties                                                  | Nominal Value | Units                   | Test Method    |
|---------------------------------------------------------------------|---------------|-------------------------|----------------|
| <b>Physical</b>                                                     |               |                         |                |
| Melt Volume Flow Rate, (250 °C/5.0 kg)                              | 25            | cm <sup>3</sup> /10 min | ISO 1133       |
| Density, (Method A)                                                 | 1.42          | g/cm <sup>3</sup>       | ISO 1183       |
| <b>Mechanical</b>                                                   |               |                         |                |
| Tensile Strain at Break, (Type 1A, 5 mm/min)                        | 2.5           | %                       | ISO 527-2      |
| Tensile Stress at Break, (Type 1A, 5 mm/min)                        | 118           | MPa                     | ISO 527-2      |
| Tensile Modulus, (1 mm/min, Type 1A)                                | 9300          | MPa                     | ISO 527-1      |
| <b>Impact</b>                                                       |               |                         |                |
| Charpy Impact Strength - Notched                                    |               |                         |                |
| (23 °C, Type 1, Edgewise, Notch A)                                  | 9.0           | kJ/m <sup>2</sup>       | ISO 179        |
| (-30 °C, Type 1, Edgewise, Notch A)                                 | 8.0           | kJ/m <sup>2</sup>       | ISO 179        |
| Charpy Impact Strength - Unnotched                                  |               |                         |                |
| (23 °C, Type 1, Edgewise)                                           | 50            | kJ/m <sup>2</sup>       | ISO 179        |
| (-30 °C, Type 1, Edgewise)                                          | 48            | kJ/m <sup>2</sup>       | ISO 179        |
| <b>Hardness</b>                                                     |               |                         |                |
| Ball Indentation Hardness, (H 961/30)                               | 184           | MPa                     | ISO 2039-1     |
| Ball Pressure Test, (200 °C)                                        | Pass          |                         | IEC 60695-10-2 |
| <b>Thermal</b>                                                      |               |                         |                |
| Vicat Softening Temperature                                         |               |                         |                |
| (B (50N), 50 °C/h)                                                  | 145           | °C                      | ISO 306        |
| (A (10N), 50 °C/h)                                                  | 210           | °C                      | ISO 306        |
| Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise) | 214           | °C                      | ISO 75-2/B     |
| Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise) | 180           | °C                      | ISO 75-2/A     |
| <b>Electrical</b>                                                   |               |                         |                |
| Volume Resistivity                                                  | >1.0E+13      | ohm*m                   | IEC 62631-3-1  |
| Comparative Tracking Index (CTI)                                    | 400           | V                       | IEC 60112      |
| Surface Resistivity                                                 | >1.0E+15      | ohm                     | IEC 60093      |

|                                |     |        |                      |
|--------------------------------|-----|--------|----------------------|
| <b>Flammable</b>               |     |        |                      |
| Burning Rate                   |     |        |                      |
| (2.00 mm)                      | 30  | mm/min | FMVSS 302            |
| (2.00 mm)                      | 30  | mm/min | ISO 3795             |
| Glow Wire Flammability Index   |     |        |                      |
| (1.5 mm)                       | 700 | °C     | IEC 60695-2-12       |
| (3.0 mm)                       | 750 | °C     | IEC 60695-2-12       |
| Glow Wire Ignition Temperature |     |        |                      |
| (1.5 mm)                       | 725 | °C     | IEC 60695-2-13       |
| (3.0 mm)                       | 775 | °C     | IEC 60695-2-13       |
| Oxygen Index                   | 20  | %      | ISO 4589-2           |
| <b>UL Information</b>          |     |        |                      |
| 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            |  | 2.0 to 4.0    | hr    |
| Drying Temperature     |  | 100           | °C    |
| Suggested Max Moisture |  | 0.05          | %     |
| Processing (Melt) Temp |  | 250 to 260    | °C    |
| Mold Temperature       |  | 60 to 90      | °C    |