

## Technical Data Sheet

### Schuladur PCR GF 30 BLK 968001



Polybutylene Terephthalate + PET

#### Product Description

30% glass fibre reinforced PBT/PET compound based on mechanical recycled sourcing. Standard color is black, color matching for dark colors possible. Automotive structural applications are possible. According to ISO 14021:2016 Schuladur PCR GF30 is a compound containing 30% of recycled material. Recycled content according to DIN SPEC 91446:2021-12: R30 Data Quality Level according to DIN SPEC 91446:2021-12: DQL4 Data Quality Level according to VDA 284: DQL Automotive

|                      |                   |
|----------------------|-------------------|
| Processing Method    | Injection Molding |
| Filler/Reinforcement | Glass Fiber, 30%  |
| Resin ID             | (PBT+PET)-GF30    |

| Typical Properties                                                  | Nominal Value | Units                   | Test Method    |
|---------------------------------------------------------------------|---------------|-------------------------|----------------|
| <b>Physical</b>                                                     |               |                         |                |
| Melt Volume Flow Rate, (260 °C/2.16 kg)                             | 17            | cm <sup>3</sup> /10 min | ISO 1133       |
| Density, (Method A)                                                 | 1.55          | g/cm <sup>3</sup>       | ISO 1183       |
| Apparent (Bulk) Density                                             | 0.60 to 0.80  | g/cm <sup>3</sup>       | ISO 60         |
| <b>Mechanical</b>                                                   |               |                         |                |
| Tensile Strain at Break, (Type 1A, 5 mm/min)                        | 2.1           | %                       | ISO 527-2      |
| Tensile Stress at Break, (Type 1A, 5 mm/min)                        | 142           | MPa                     | ISO 527-2      |
| Tensile Modulus, (1 mm/min, Type 1A)                                | 11000         | MPa                     | ISO 527-1      |
| <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)                                 | 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)                               | 263           | 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)                                                  | 200           | °C                      | ISO 306        |
| (A (10N), 50 °C/h)                                                  | 216           | °C                      | ISO 306        |
| Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise) | 225           | °C                      | ISO 75-2/B     |
| Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise) | 200           | °C                      | ISO 75-2/A     |

|                                  |          |        |                      |
|----------------------------------|----------|--------|----------------------|
| <b>Electrical</b>                |          |        |                      |
| Volume Resistivity               | >1.0E+13 | ohm*m  | IEC 62631-3-1        |
| Comparative Tracking Index (CTI) | 300      | V      | IEC 60112            |
| Surface Resistivity              | >1.0E+15 | ohm    | IEC 60093            |
| <b>Flammable</b>                 |          |        |                      |
| Burning Rate                     |          |        |                      |
| (2.00 mm)                        | 29       | mm/min | FMVSS 302            |
| (2.00 mm)                        | 29       | mm/min | ISO 3795             |
| Glow Wire Flammability Index     |          |        |                      |
| (1.5 mm)                         | 700      | °C     | IEC 60695-2-12       |
| (3.0 mm)                         | 800      | °C     | IEC 60695-2-12       |
| Glow Wire Ignition Temperature   |          |        |                      |
| (1.5 mm)                         | 725      | °C     | IEC 60695-2-13       |
| (3.0 mm)                         | 825      | °C     | IEC 60695-2-13       |
| Oxygen Index                     | 19       | %      | ISO 4589-2           |
| <b>Additional Information</b>    |          |        |                      |
| Water Absorption 23C/50RH        | 0.3      | %      | 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   |        |                      |

| Injection Parameters   | Nominal    |       |
|------------------------|------------|-------|
|                        | Value      | Units |
| Drying Time            | 4.0 to 6.0 | hr    |
| Drying Temperature     | 120        | °C    |
| Suggested Max Moisture | 0.02       | %     |
| Screw Speed            | <0.3       | m/sec |
| Processing (Melt) Temp | 260 to 280 | °C    |
| Mold Temperature       | 80 to 110  | °C    |