

Technical Data Sheet

Schuladur PCR GF20 K206 8BLK968001

Polybutylene Terephthalate + PET

Product Description

20% 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 GF20 is a compound containing 35% of recycled material. Recycled content according to DIN SPEC 91446:2021-12: R35 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, 20% |
| Resin ID | (PBT+PET)-GF20 |

| Typical Properties | Nominal Value | Units | Test Method |
|---|---------------|-------------------------|----------------|
| Physical | | | |
| Melt Volume Flow Rate, (260 °C/2.16 kg) | 20 | cm ³ /10 min | ISO 1133 |
| Density, (Method A) | 1.47 | g/cm ³ | ISO 1183 |
| Apparent (Bulk) Density | 0.60 to 0.80 | g/cm ³ | ISO 60 |
| Mechanical | | | |
| Tensile Strain at Break, (Type 1A, 5 mm/min) | 2.5 | % | ISO 527-2 |
| Tensile Stress at Break, (Type 1A, 5 mm/min) | 120 | MPa | ISO 527-2 |
| Tensile Modulus, (1 mm/min, Type 1A) | 7600 | MPa | ISO 527-1 |
| Impact | | | |
| Charpy Impact Strength - Notched | | | |
| (23 °C, Type 1, Edgewise, Notch A) | 6.0 | kJ/m ² | ISO 179 |
| (-30 °C, Type 1, Edgewise, Notch A) | 5.0 | kJ/m ² | ISO 179 |
| Charpy Impact Strength - Unnotched | | | |
| (23 °C, Type 1, Edgewise) | 30 | kJ/m ² | ISO 179 |
| (-30 °C, Type 1, Edgewise) | 28 | kJ/m ² | ISO 179 |
| Hardness | | | |
| Ball Pressure Test, (200 °C) | Pass | | IEC 60695-10-2 |
| Thermal | | | |
| Vicat Softening Temperature | | | |
| (B (50N), 50 °C/h) | 190 | °C | ISO 306 |
| (A (10N), 50 °C/h) | 215 | °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 |
| Surface Resistivity | >1.0E+15 | ohm | IEC 60093 |

Flammable

| | | | |
|--|-----|--------|----------------|
| Burning Rate | | | |
| (2.00 mm) | 30 | mm/min | ISO 3795 |
| (2.00 mm) | 30 | mm/min | FMVSS 302 |
| Glow Wire Flammability Index, (2.0 mm) | 650 | °C | IEC 60695-2-12 |

Additional Information

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|---------------------------|-----|---|--------|
| Water Absorption 23C/50RH | 0.3 | % | ISO 62 |
|---------------------------|-----|---|--------|

UL Information

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|-----------------------------|----|--|----------------------|
| 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 | 4.0 to 6.0 | hr |
| Drying Temperature | 120 | °C |
| Suggested Max Moisture | 0.02 | % |
| Processing (Melt) Temp | 260 to 280 | °C |
| Mold Temperature | 80 to 110 | °C |