

## Technical Data Sheet

### Polyfort FPP 20/10 TGF BLK



Polypropylene, Homopolymer

#### Product Description

10% glass fibre and 10% talc filled PP homopolymer with high strength and low warpage.

|                      |                                         |
|----------------------|-----------------------------------------|
| Processing Method    | Injection Molding                       |
| Attribute            | High Strength; Homopolymer; Low Warpage |
| Filler/Reinforcement | Glass Fiber, 10%; Talc, 10%             |

| Typical Properties                                                  | Nominal Value | Units                   | Test Method |
|---------------------------------------------------------------------|---------------|-------------------------|-------------|
| <b>Physical</b>                                                     |               |                         |             |
| Melt Volume Flow Rate, (230 °C/2.16 kg)                             | 7.0           | cm <sup>3</sup> /10 min | ISO 1133    |
| Density, (Method A)                                                 | 1.05          | g/cm <sup>3</sup>       | ISO 1183    |
| <b>Mechanical</b>                                                   |               |                         |             |
| Tensile Strain at Break, (Type 1A, 5 mm/min)                        | 6.0           | %                       | ISO 527-2   |
| Flexural Modulus                                                    | 4000          | MPa                     | ISO 178     |
| Tensile Stress at Break, (Type 1A, 5 mm/min)                        | 43.0          | MPa                     | ISO 527-2   |
| Tensile Modulus, (1 mm/min, Type 1A)                                | 3600          | MPa                     | ISO 527-1   |
| Flexural Stress                                                     | 80            | MPa                     | ISO 178     |
| <b>Impact</b>                                                       |               |                         |             |
| Charpy Impact Strength - Notched                                    |               |                         |             |
| (23 °C, Type 1, Edgewise, Notch A)                                  | 5.0           | kJ/m <sup>2</sup>       | ISO 179     |
| (-30 °C, Type 1, Edgewise, Notch A)                                 | 4.0           | kJ/m <sup>2</sup>       | ISO 179     |
| Charpy Impact Strength - Unnotched                                  |               |                         |             |
| (23 °C, Type 1, Edgewise)                                           | 40            | kJ/m <sup>2</sup>       | ISO 179     |
| (-30 °C, Type 1, Edgewise)                                          | 25            | kJ/m <sup>2</sup>       | ISO 179     |
| <b>Thermal</b>                                                      |               |                         |             |
| Vicat Softening Temperature                                         |               |                         |             |
| (B (50N), 50 °C/h)                                                  | 105           | °C                      | ISO 306     |
| (A (10N), 50 °C/h)                                                  | 160           | °C                      | ISO 306     |
| Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise) | 145           | °C                      | ISO 75-2/B  |
| Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise) | 115           | °C                      | ISO 75-2/A  |
| <b>Electrical</b>                                                   |               |                         |             |
| Volume Resistivity                                                  | >1.0E+13      | ohm*cm                  | IEC 60093   |
| Surface Resistivity                                                 | >1.0E+15      | ohm                     | IEC 60093   |
| <b>Flammable</b>                                                    |               |                         |             |

|                                       |      |        |                      |
|---------------------------------------|------|--------|----------------------|
| Burning Rate                          |      |        |                      |
| (2.00 mm)                             | <100 | mm/min | ISO 3795             |
| (2.00 mm)                             | <100 | mm/min | FMVSS 302            |
| UL Information                        |      |        |                      |
| Flammability Classification, (1.5 mm) | HB   |        | IEC 60695-11-10, -20 |

| Injection Parameters   | Nominal    |       |
|------------------------|------------|-------|
|                        | Value      | Units |
| Drying Time            | 2.0 to 3.0 | hr    |
| Drying Temperature     | 80         | °C    |
| Processing (Melt) Temp | 220 to 260 | °C    |
| Mold Temperature       | 30 to 60   | °C    |