

## Technical Data Sheet

### Polyfort FPP 20 GFC NATURAL

Polypropylene, Homopolymer

#### Product Description

20% chemical coupled glass fiber reinforced PP-Homopolymer

|                      |                                 |
|----------------------|---------------------------------|
| Processing Method    | Injection Molding               |
| Attribute            | Chemically Coupled; Homopolymer |
| Filler/Reinforcement | Glass Fiber, 20%                |

| Typical Properties                                                  | Nominal Value | Units                   | Test Method    |
|---------------------------------------------------------------------|---------------|-------------------------|----------------|
| <b>Physical</b>                                                     |               |                         |                |
| Melt Volume Flow Rate, (230 °C/2.16 kg)                             | 5.0           | 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)                        | 3.0           | %                       | ISO 527-2      |
| Tensile Stress at Break, (Type 1A, 5 mm/min)                        | 68.0          | MPa                     | ISO 527-2      |
| Tensile Modulus, (1 mm/min, Type 1A)                                | 4600          | 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)                                 | 7.0           | 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>Hardness</b>                                                     |               |                         |                |
| Ball Indentation Hardness                                           | 100           | MPa                     | ISO 2039-1     |
| Ball Pressure Test, (130 °C)                                        | Pass          |                         | IEC 60695-10-2 |
| <b>Thermal</b>                                                      |               |                         |                |
| Vicat Softening Temperature                                         |               |                         |                |
| (B (50N), 50 °C/h)                                                  | 115           | °C                      | ISO 306        |
| (A (10N), 50 °C/h)                                                  | 160           | °C                      | ISO 306        |
| Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise) | 153           | °C                      | ISO 75-2/B     |
| Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise) | 136           | °C                      | ISO 75-2/A     |
| <b>Electrical</b>                                                   |               |                         |                |
| Volume Resistivity                                                  | >1.0E+13      | ohm*m                   | IEC 62631-3-1  |
| 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            |
| <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 |        |                      |

| <b>Injection Parameters</b> | <b>Nominal Value</b> | <b>Units</b> |
|-----------------------------|----------------------|--------------|
| Drying Time                 | 2.0 to 3.0           | hr           |
| Drying Temperature          | 80                   | °C           |
| Processing (Melt) Temp      | 220 to 260           | °C           |
| Injection Rate              | Moderate-Fast        |              |
| Mold Temperature            | 30 to 60             | °C           |