

## Technical Data Sheet

### Polyfort FPP 1151E-31 40 BLKBLK



Polypropylene, Unspecified (PP, Unspecified)

#### Product Description

Extrusion grade, 40% calcium carbonate filled, high molecular weight polypropylene.

**Processing Method** Extrusion; Injection Molding

**Filler/Reinforcement** Calcium Carbonate, 40%

| Typical Properties                                          | Nominal Value | Units      | Test Method |
|-------------------------------------------------------------|---------------|------------|-------------|
| <b>Physical</b>                                             |               |            |             |
| Melt Flow Rate                                              |               |            |             |
| (230 °C/2.16 kg)                                            | 0.30 to 0.60  | g/10 min   | ISO 1133    |
| (230 °C/2.16 kg)                                            | 0.30 to 0.60  | g/10 min   | ASTM D1238  |
| Melt Volume Flow Rate, (230 °C/2.16 kg)                     | 0.30 to 0.60  | cm³/10 min | ASTM D1238  |
| Density - Specific Gravity                                  | 1.26          | g/cm³      | ASTM D792   |
| <b>Mechanical</b>                                           |               |            |             |
| Tensile Strength at Yield, (50 mm/min, 23 °C)               | 24.0          | MPa        | ASTM D638   |
| Tensile Stress at Yield, (23 °C, 50 mm/min)                 | 25.0          | MPa        | ISO 527-2   |
| Flexural Modulus                                            |               |            |             |
| (1.3 mm/min, 23 °C, Tangent)                                | 2300          | MPa        | ASTM D790   |
| (23 °C, 2.0 mm/min, Tangent)                                | 2800          | MPa        | ISO 178     |
| <b>Impact</b>                                               |               |            |             |
| Charpy Impact Strength - Notched, (23 °C, Injection Molded) | 10            | kJ/m²      | ISO 179     |
| Notched Izod Impact Strength, (23 °C, Injection Molded)     | 10            | kJ/m²      | ISO 180     |
| Notched Izod Impact, (23 °C, Injection Molded)              | 130           | J/m        | ASTM D256   |
| <b>Hardness</b>                                             |               |            |             |
| Rockwell Hardness, (R-Scale)                                | 88            |            | ASTM D785   |
| <b>Thermal</b>                                              |               |            |             |
| Deflection Temperature Under Load Unannealed (1.80 MPa)     | 62            | °C         | ISO 75-2/A  |
| Deflection Temperature Under Load Unannealed (264 psi)      | 58            | °C         | ASTM D648   |
| Deflection Temperature Under Load Unannealed (66 psi)       | 100           | °C         | ASTM D648   |
| <b>Additional Information</b>                               |               |            |             |
| Filler Content                                              | 40            | %          | ASTM D5630  |

| Injection Parameters   | Nominal Value | Units |
|------------------------|---------------|-------|
| 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    |