

## Technical Data Sheet

### *Polyfort* RPP30EA18BK-MR GAPEX



Polypropylene, Homopolymer

#### Product Description

Primary use is for battery tray supports.

|                             |                                     |
|-----------------------------|-------------------------------------|
| <b>Processing Method</b>    | Injection Molding                   |
| <b>Attribute</b>            | Chemically Coupled; Heat Stabilized |
| <b>Forms</b>                | Pellets                             |
| <b>Appearance</b>           | Black                               |
| <b>Additive</b>             | Heat Stabilizer                     |
| <b>Application</b>          | Support Trays                       |
| <b>Filler/Reinforcement</b> | Glass Fiber, 30%                    |

| Typical Properties             | Nominal Value | Units             | Test Method |
|--------------------------------|---------------|-------------------|-------------|
| <b>Physical</b>                |               |                   |             |
| Melt Flow Rate                 |               |                   |             |
| (230 °C/2.16 kg)               | 4.0           | g/10 min          | ASTM D1238  |
| (230 °C/2.16 kg)               | 3.8           | g/10 min          | ISO 1133    |
| Density                        | 1.14          | g/cm <sup>3</sup> | ISO 1183    |
| Density - Specific Gravity     | 1.13          | g/cm <sup>3</sup> | ASTM D792   |
| <b>Mechanical</b>              |               |                   |             |
| Flexural Modulus               | 4750          | MPa               | ASTM D790   |
| Tensile Elongation at Break    | 4             | %                 | ASTM D638   |
| Tensile Stress at Break        | 72.4          | MPa               | ISO 527-2   |
| <b>Impact</b>                  |               |                   |             |
| Notched Izod Impact Strength   |               |                   |             |
| (23 °C)                        | 6.8           | kJ/m <sup>2</sup> | ISO 180     |
| (-40 °C)                       | 4.8           | kJ/m <sup>2</sup> | ISO 180     |
| Gardner Impact                 | 0.565         | J                 | ASTM D3029  |
| Unnotched Izod Impact, (23 °C) | 530           | J/m               | ASTM D4812  |
| Notched Izod Impact            |               |                   |             |
| (23 °C)                        | 65            | J/m               | ASTM D256   |
| (-40 °C)                       | 48            | J/m               | ASTM D256   |
| <b>Hardness</b>                |               |                   |             |
| Durometer Hardness, (Shore D)  | 95            |                   | ASTM D2240  |
| <b>Thermal</b>                 |               |                   |             |

|                                                         |     |    |            |
|---------------------------------------------------------|-----|----|------------|
| Deflection Temperature Under Load Unannealed (0.45 MPa) | 152 | °C | ISO 75-2/B |
| Deflection Temperature Under Load Unannealed (1.80 MPa) | 139 | °C | ISO 75-2/A |
| Deflection Temperature Under Load Unannealed (264 psi)  | 149 | °C | ASTM D648  |
| Deflection Temperature Under Load Unannealed (66 psi)   | 163 | °C | ASTM D648  |

| Injection Parameters   | Nominal Value  | Units |
|------------------------|----------------|-------|
| Drying Time            | 2.0 to 4.0     | hr    |
| Drying Temperature     | 71 to 82       | °C    |
| Nozzle Temperature     | 232 to 260     | °C    |
| Processing (Melt) Temp | 221 to 238     | °C    |
| Front Temperature      | 232 to 260     | °C    |
| Middle Temperature     | 227 to 243     | °C    |
| Rear Temperature       | 221 to 238     | °C    |
| Injection Rate         | Slow-Moderate  |       |
| Back Pressure          | 0.138 to 0.345 | MPa   |
| Mold Temperature       | 38 to 66       | °C    |
| Cushion                | 5.08 to 12.7   | mm    |