

## Technical Data Sheet

### *Polyfort* RPP30EA16NA-NA GAPEXNAT



Polypropylene, Homopolymer

#### Product Description

*Polyfort* RPP30EA16NA-NA GAPEXNAT is a Polypropylene Homopolymer Glass Fiber, 31% filled material and is typically used in Injection Molding applications. Features include: Chemically Coupled, Heat Stabilized, and Homopolymer.

|                             |                                                    |
|-----------------------------|----------------------------------------------------|
| <b>Processing Method</b>    | Injection Molding                                  |
| <b>Attribute</b>            | Chemically Coupled; Heat Stabilized; Homopolymer   |
| <b>Forms</b>                | Pellets                                            |
| <b>Appearance</b>           | Natural Color                                      |
| <b>Additive</b>             | Heat Stabilizer                                    |
| <b>Application</b>          | Automotive Applications; Automotive Under the Hood |
| <b>Filler/Reinforcement</b> | Glass Fiber, 31%                                   |

| Typical Properties               | Nominal Value | Units             | Test Method |
|----------------------------------|---------------|-------------------|-------------|
| <b>Physical</b>                  |               |                   |             |
| Melt Flow Rate                   |               |                   |             |
| (230 °C/2.16 kg)                 | 3.5           | g/10 min          | ISO 1133    |
| (230 °C/2.16 kg)                 | 3.0           | g/10 min          | ASTM D1238  |
| Density                          | 1.13          | g/cm <sup>3</sup> | ISO 1183    |
| Density - Specific Gravity       | 1.15          | g/cm <sup>3</sup> | ASTM D792   |
| <b>Mechanical</b>                |               |                   |             |
| Tensile Strength at Yield        | 82.7          | MPa               | ASTM D638   |
| Flexural Strength at Yield       | 117           | MPa               | ASTM D790   |
| Tensile Stress at Yield, (23 °C) | 82.8          | MPa               | ISO 527-2   |
| Flexural Modulus                 | 5200          | MPa               | ISO 178     |
| Tensile Elongation at Break      | 6             | %                 | ASTM D638   |
| <b>Impact</b>                    |               |                   |             |
| Notched Izod Impact Strength     |               |                   |             |
| (23 °C)                          | 8.0           | kJ/m <sup>2</sup> | ISO 180     |
| (-40 °C)                         | 5.5           | kJ/m <sup>2</sup> | ISO 180     |
| Gardner Impact                   | 0.565         | J                 | ASTM D3029  |
| Unnotched Izod Impact, (23 °C)   | 640           | J/m               | ASTM D4812  |
| Notched Izod Impact, (23 °C)     | 85            | J/m               | ASTM D256   |
| <b>Hardness</b>                  |               |                   |             |
| Durometer Hardness, (Shore D)    | 75            |                   | ASTM D2240  |

**Thermal**

|                                                         |     |    |            |
|---------------------------------------------------------|-----|----|------------|
| Deflection Temperature Under Load Unannealed (0.45 MPa) | 158 | °C | ISO 75-2/B |
| Deflection Temperature Under Load Unannealed (1.80 MPa) | 150 | °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  |

| <b>Injection Parameters</b> | <b>Nominal Value</b> | <b>Units</b> |
|-----------------------------|----------------------|--------------|
| 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           |