

## Technical Data Sheet

### *Icorene* RPE20HW16HB-GYGRY



Polyethylene, Unspecified

#### Product Description

*Icorene* RPE20HW16HB-GYGRY is a Polyethylene, Unspecified Glass Fiber, 20% filled material and is typically used in Injection Molding applications.

|                      |                   |
|----------------------|-------------------|
| Processing Method    | Injection Molding |
| Forms                | Pellets           |
| Filler/Reinforcement | Glass Fiber, 20%  |

| Typical Properties                                     | Nominal Value | Units             | Test Method |
|--------------------------------------------------------|---------------|-------------------|-------------|
| <b>Physical</b>                                        |               |                   |             |
| Melt Flow Rate, (230 °C/2.16 kg)                       | 4.5           | g/10 min          | ASTM D1238  |
| Density - Specific Gravity                             | 1.1           | g/cm <sup>3</sup> | ASTM D792   |
| <b>Mechanical</b>                                      |               |                   |             |
| Tensile Strength at Yield                              | 33.8          | MPa               | ASTM D638   |
| Flexural Strength at Yield                             | 48.3          | MPa               | ASTM D790   |
| Flexural Modulus                                       | 2720          | MPa               | ASTM D790   |
| Tensile Elongation at Break                            | 4             | %                 | ASTM D638   |
| <b>Impact</b>                                          |               |                   |             |
| Gardner Impact, (3.18 mm)                              | 0.565         | J                 | ASTM D3029  |
| Unnotched Izod Impact, (23 °C)                         | 210           | J/m               | ASTM D4812  |
| Notched Izod Impact, (23 °C)                           | 53            | J/m               | ASTM D256   |
| <b>Hardness</b>                                        |               |                   |             |
| Durometer Hardness, (Shore D)                          | 67            |                   | ASTM D2240  |
| <b>Thermal</b>                                         |               |                   |             |
| Deflection Temperature Under Load Unannealed (264 psi) | 93.3          | °C                | ASTM D648   |
| Deflection Temperature Under Load Unannealed (66 psi)  | 124           | °C                | ASTM D648   |

| Injection Parameters    | Nominal Value  | Units              |
|-------------------------|----------------|--------------------|
| Drying Time             | 2              | hr                 |
| Drying Temperature      | 93             | °C                 |
| Clamp Tonnage           | 2.8 to 4.1     | kN/cm <sup>2</sup> |
| Nozzle Temperature      | 216 to 249     | °C                 |
| Screw Speed             | 40 to 100      | rpm                |
| Front Temperature       | 216 to 249     | °C                 |
| Screw L/D Ratio         | 20.0-1.0       |                    |
| Screw Compression Ratio | 2.0-1.0        |                    |
| Middle Temperature      | 204 to 249     | °C                 |
| Rear Temperature        | 199 to 221     | °C                 |
| Back Pressure           | 0.138 to 0.345 | MPa                |
| Mold Temperature        | 27 to 66       | °C                 |