PHOENIX
Polymer Compounding LLC

# Technical Data Sheet

## Resurgens® *N1600R G30*

### 30% Glass Reinforced Polyamide (Nylon) Type 6 – 25% Recycle Content

Date: January, 2008

| **General** | | | |
|---|---|---|---|
| Features | Excellent chemical resistance<br>Engineered to retain critical properties of virgin counterpart<br>Environmentally responsible | | |
| Appearance | Pigmented<br>Pellets | | |
| Processes | Injection molding | | |
| ***Typical Compound Properties***[a] | ***Nominal Values*** | | ***Test Methods***[b] |
| **Physical** | **English Units** | **Metric Units** | |
| Relative Viscosity | 50.0 cP | 50.0 kPa•s | ASTM D789 |
| Melt Point | 419 ºF | 215 ºC | ASTM D789 |
| Specific Gravity | 1.36 | 1.36 | ASTM D792 |
| Water Absorption | 1.10% | 1.10% | ASTM D570 |
| Linear Mold Shrinkage | 0.003 in/in | 0.003 mm/mm | ASTM D955 |
| Hardness, Rockwell Scale | R121 | R121 | ASTM D785 |
| Coefficient of Linear Thermal Expansion | 1.80 x $10^{-5}$ in/in ºF | 3.24 x $10^{-5}$ cm/cm ºC | ASTM D696 |
| Reinforcement Content | 30±2% | 30±2% | ASTM D2584 |
| **Mechanical**[c] | | | |
| Notched Izod Impact @ 73 ºF (23 ºC) | 2.0 ft-lb/in. | 106.8 J/m | ASTM D256 |
| Tensile Strength @ Yield | 23,000 psi | 158.6 MPa | ASTM D638 |
| Elongation @ Break | 3% | 3% | ASTM D638 |
| Flexural Strength | 34,000 psi | 234.5 MPa | ASTM D790 |
| Flexural Modulus, tangent | 1,100,000 psi | 7,586 MPa | ASTM D790 |
| Heat Deflection Temperature | | | |
| @ 66 psi (0.455 MPa) | 430 ºF | 221 ºC | ASTM D648 |
| @ 264 psi (1.82 MPa) | 410 ºF | 210 ºC | ASTM D648 |

(a) Values shown represent nominal averages and are not to be construed as product specifications.
(b) ASTM methods are the latest under the Society's current Procedures. All Molded specimens are prepared by injection molding.
(c) Properties measured on "Dry As Molded" test specimens.



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