



Technical Data Sheet

Phoenamide® N2100 G33

33% Glass Reinforced Polyamide (Nylon) Type 6/6 – Impact Modified

Date: January, 2008

General

| | |
|------------|---|
| Features | Excellent chemical resistance Good toughness and low temperature impact resistance Good stiffness and elevated temperature capability |
| Appearance | Off white or pigmented Pellets |
| Processes | Injection molding |

Typical Compound Properties^(a)

| Physical | Nominal Values | | Test Methods ^(b) |
|---|----------------------------------|----------------------------------|-----------------------------|
| | English Units | Metric Units | |
| Relative Viscosity | 50.0 cP | 50.0 kPa•s | ASTM D789 |
| Melt Point | 509 °F | 265 °C | ASTM D789 |
| Specific Gravity | 1.34 | 1.34 | ASTM D792 |
| Water Absorption | 0.50% | 0.50% | ASTM D570 |
| Linear Mold Shrinkage | 0.002 in/in | 0.002 mm/mm | ASTM D955 |
| Hardness, Rockwell Scale | R117 | R117 | ASTM D785 |
| Coefficient of Linear Thermal Expansion | 1.20 x 10 ⁻⁵ in/in °F | 2.16 x 10 ⁻⁵ cm/cm °C | ASTM D696 |
| Reinforcement Content | 33±2% | 33±2% | ASTM D2584 |

Mechanical^(c)

| | | | |
|-------------------------------------|---------------|-----------|-----------|
| Notched Izod Impact @ 73 °F (23 °C) | 2.5 ft-lb/in. | 133.5 J/m | ASTM D256 |
| Tensile Strength @ Yield | 18,000 psi | 124.1 MPa | ASTM D638 |
| Elongation @ Break | 3% | 3% | ASTM D638 |
| Flexural Strength | 26,000 psi | 179.3 MPa | ASTM D790 |
| Flexural Modulus, tangent | 9800,000 psi | 6,759 MPa | ASTM D790 |
| Heat Deflection Temperature | | | |
| @ 66 psi (0.455 MPa) | 490 °F | 254 °C | ASTM D648 |
| @ 264 psi (1.82 MPa) | 475 °F | 246 °C | 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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