



# Technical Data Sheet

## Phoenamide® N1600 MR40

### 40% Glass/Mineral Reinforced Polyamide (Nylon) Type 6

Date: January, 2008

#### General

Features	Excellent chemical resistance Excellent stiffness and dimensional stability Good surface appearance
Appearance	Off white or pigmented Pellets
Processes	Injection molding

<i>Typical Compound Properties<sup>(a)</sup></i>	<i>Nominal Values</i>		<i>Test Methods<sup>(b)</sup></i>
<b>Physical</b>	<b>English Units</b>	<b>Metric Units</b>	
Relative Viscosity	50.0 cP	50.0 kPa•s	ASTM D789
Melt Point	419 °F	215 °C	ASTM D789
Specific Gravity	1.48	1.48	ASTM D792
Water Absorption	0.90%	0.90%	ASTM D570
Linear Mold Shrinkage	0.004 in/in	0.004 mm/mm	ASTM D955
Hardness, Rockwell Scale	R121	R121	ASTM D785
Coefficient of Linear Thermal Expansion	1.70 x 10 <sup>-5</sup> in/in °F	3.06 x 10 <sup>-5</sup> cm/cm °C	ASTM D696
Reinforcement Content	40±3%	40±3%	ASTM D2584

#### Mechanical<sup>(c)</sup>

Notched Izod Impact @ 73 °F (23 °C)	0.9 ft-lb/in.	48.1 J/m	ASTM D256
Tensile Strength @ Yield	19,600 psi	135.2 MPa	ASTM D638
Elongation @ Break	2%	2%	ASTM D638
Flexural Strength	28,000 psi	193.1 MPa	ASTM D790
Flexural Modulus, tangent	1,100,000 psi	7,586 MPa	ASTM D790
Heat Deflection Temperature			
@ 66 psi (0.455 MPa)	420 °F	216 °C	ASTM D648
@ 264 psi (1.82 MPa)	405 °F	207 °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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