



# Technical Data Sheet

## Phoenidur® A1200

Acrylonitrile-Butadiene-Styrene Terpolymer (ABS) – High Impact

Date: January, 2008

### General

|            |   |
|------------|---|
| Features   | Excellent impact to stiffness balance<br>Excellent surface finish<br>High Gloss |
| Appearance | Off white opaque or pigmented<br>Pellets  |
| Processes  | Injection molding   |

### Typical Compound Properties<sup>(a)</sup>

| Physical                                | Nominal Values                   |                                  | Test Methods <sup>(b)</sup>  |
|---|----------------------------------|----------------------------------|------------------------------|
|   | English Units                    | Metric Units                     |                              |
| Melt Flow Rate                          | 4.0 g/10 min.                    | 4.0 dg/min.                      | ASTM D1238, 3,800 g. @ 230°C |
| Specific Gravity                        | 1.05                             | 1.05                             | ASTM D792                    |
| Linear Mold Shrinkage                   | 0.006 in/in                      | 0.006 mm/mm                      | ASTM D955                    |
| Hardness, Rockwell Scale                | R112                             | R112                             | ASTM D785                    |
| Coefficient of Linear Thermal Expansion | 4.50 x 10 <sup>-5</sup> in/in °F | 8.10 x 10 <sup>-5</sup> cm/cm °C | ASTM D696                    |
| Water Absorption                        | 0.40%                            | 0.40%                            | ASTM D785                    |

### Mechanical

|                                     |               |           |           |
|-------------------------------------|---------------|-----------|-----------|
| Notched Izod Impact @ 73 °F (23 °C) | 5.0 ft-lb/in. | 267.0 J/m | ASTM D256 |
| Tensile Strength @ Yield            | 6,100 psi     | 42.1 MPa  | ASTM D638 |
| Elongation @ Yield                  | 30%           | 30%       | ASTM D638 |
| Flexural Strength                   | 10,000 psi    | 69.0 MPa  | ASTM D790 |
| Flexural Modulus, tangent           | 320,000 psi   | 2,207 MPa | ASTM D790 |
| Heat Deflection Temperature         |               |           |           |
| @ 66 psi (0.455 MPa)                | 195 °F        | 91 °C     | ASTM D648 |
| @ 264 psi (1.82 MPa)                | 185 °F        | 85 °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.

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