

## **Material Data Sheet** 799E

**COMPOUND**: 799E

**POLYMER**: Polyamide (PA)

**DESCRIPTION:** Unfilled Nylon 66 (PA) Natural, Extruded Stock Shapes and Machined parts

| Property   | Test Method           | Typical Values        | Units   |
|--|-----------------------|-----------------------|---|
| Specific Gravity   | ASTM D792             | 1.15                  | -   |
| Water Absorption 24 HRS, Immersion Saturation, Immersion               | ASTM D570             | 0.3<br>7.0            | %   |
| Hardness   | ASTM D2240            | 80                    | SHORE-D   |
| Tensile Strength at Break  | ASTM D638             | 12,000 (82.74)        | PSI (MPa)   |
| Elongation at Break  | ASTM D1708<br>& D1710 | 50                    | %   |
| Tensile Modulus  | ASTM D638             | 425,000 (2,930.3)     | PSI (MPa)   |
| Compressive Strength   | ASTM D695             | 12,500 (86.18)        | PSI (MPa)   |
| Compressive Modulus  | ASTM D695             | 420,000 (2,895.8)     | PSI (MPa)   |
| Shear Strength   | ASTM D732             | 10,000 (68.95)        | PSI (MPa)   |
| Flexural Strength  | ASTM D790             | 15,000 (103.42)       | PSI (MPa)   |
| Flexural Modulus   | ASTM D790             | 450,000 (3,102.6)     | PSI (MPa)   |
| Izod Impact Strength, Notched  | ASTM D256             | 0.6                   | FT.LB/INCH  |
| Coefficient of Linear Thermal<br>Expansion                             | ASTM D696             | 5.5 (9.9)             | X 10 <sup>-5</sup> °F <sup>-1</sup> (°C <sup>-1</sup> ) |
| Heat Deflection Temperature<br>@ 264 PSI (1.82 MPa)                    | ASTM D648             | 200 (93)              | °F (°C)   |
| Maximum Continuous Operating Temperature Minimum Operating Temperature |                       | 210 (98)<br>-22 (-30) | °F (°C)   |

REVISION HISTORY
REV. NONE – Initial Release, 5-14-1990 BJ

REV. A - Updated data sheet format on new template. Added additional test data. 10-12-2020 RSK