

## Technical Data Sheet

**Polyaxis LP 8000-4A544G TANBWN**

Polyethylene, High Density, Metallocene

**Product Description**

*Polyaxis* LP-8000 is a high density polyethylene intended for the rotational molding industry. This stiff yet tough compound has been used in watercraft with good success.

|                          |                            |
|--------------------------|----------------------------|
| <b>Processing Method</b> | Rotomolding                |
| <b>Forms</b>             | Pellets; Powder            |
| <b>Appearance</b>        | Colors Available           |
| <b>Additive</b>          | Long Term UV-10 Stabilizer |

| <b>Typical Properties</b>                                                            | <b>Nominal Value</b> | <b>Units</b>      | <b>Test Method</b> |
|--------------------------------------------------------------------------------------|----------------------|-------------------|--------------------|
| <b>Physical</b>                                                                      |                      |                   |                    |
| Melt Flow Rate, (190 °C/2.16 kg)                                                     | 3.6                  | g/10 min          | ASTM D1238         |
| Density - Specific Gravity                                                           | 0.945                | g/cm <sup>3</sup> | ASTM D792          |
| <b>Mechanical</b>                                                                    |                      |                   |                    |
| Tensile Strength at Yield, (51 mm/min, Rotational Molded)                            | 22.1                 | MPa               | ASTM D638          |
| Environmental Stress Crack Resistance, (Compression Molded, F50, 10% Igepal)         | 6.00                 | hr                | ASTM D1693         |
| Flexural Modulus, (Rotational Molded, 1% Secant)                                     | 1000                 | MPa               | ASTM D790          |
| Tensile Elongation at Break, (51 mm/min, Rotational Molded)                          | 500                  | %                 | ASTM D638          |
| <b>Impact</b>                                                                        |                      |                   |                    |
| Impact Strength                                                                      |                      |                   |                    |
| (-40 °C, 3.18 mm, Rotational Molded)                                                 | 88                   | J                 | ARM                |
| (-40 °C, 6.35 mm, Rotational Molded)                                                 | >258                 | J                 | ARM                |
| <b>Thermal</b>                                                                       |                      |                   |                    |
| Deflection Temperature Under Load Unannealed (264 psi), (3.18 mm, Rotational Molded) | 39.3                 | °C                | ASTM D648          |
| Deflection Temperature Under Load Unannealed (66 psi), (3.18 mm, Rotational Molded)  | 71.1                 | °C                | ASTM D648          |