

# PAXON<sup>®</sup> HDPE

High Density Polyethylene

## 7203 Rotational Molding Resin

### Description

7203 is a black, crosslinkable HDPE, supplied as pellets, intended for use in rotational molding applications where long-term outdoor UV protection is required. Properly molded parts made with 7203 exhibit excellent impact strength, tear strength, tensile creep resistance, as well as exceptional stress crack resistance.

### Applications

- High ESCR outdoor storage tanks, vessels
- Marine fuel tanks
- Recreational vehicle fuel tanks
- Large refuse containers

| Properties  | Test Based On     | Units (SI)                               | Nominal Value <sup>1</sup> |
|---|-------------------|--|----------------------------|
| <b>Classification</b>   |                   |  |                            |
| Density   | ASTM D-1505       | lbs/ft <sup>3</sup> (g/cm <sup>3</sup> ) | 59.7 (0.955)               |
| <b>Mechanical</b> (23°C, 50% relative humidity, unless otherwise noted) |                   |  |                            |
| Tensile Strength at Yield   | ASTM D-638        | psi (MPa)                                | 3,000 (21)                 |
| Elongation at Break   | ASTM D-638        | %  | 700                        |
| Tensile Modulus of Elasticity   | ASTM D-638        | psi (MPa)                                | 115,000 (793)              |
| Flexural Modulus <sup>2</sup>   | ASTM D-790        | psi (MPa)                                | 100,000 (689)              |
| Impact Brittleness Temperature  | ASTM D-746        | °F (°C)                                  | <-180 (<-118)              |
| Dart Impact at -40°C  | ARM Std. (B)      | ft-lb (joules)                           | 60 (81)                    |
|   | 125 mil thickness |  |                            |
| Environmental Stress Crack Resistance <sup>3</sup>                      | ASTM D-1693       | hrs                                      | >1,000                     |
| <b>Thermal</b>  |                   |  |                            |
| Vicat Softening Temperature   | ASTM D-1525       | °F (°C)                                  | 250 (121)                  |
| Heat Deflection Temperature, 66 psi load                                | ASTM D-648        | °F (°C)                                  | 150 (66)                   |
| <b>Processing</b>   |                   |  |                            |
| Bulk density  | ASTM D-1895       | lbs/ft <sup>3</sup> (kg/m <sup>3</sup> ) | 36.5 (584)                 |

1. Values are typical and should not be interpreted as specifications.
2. Method 1, Procedure A (1"x3"x0.125"), Tangent calculation.
3. Condition B, specimen thickness: 0.070"-0.080", notch depth: 0.012"-0.015", 50°C, 100% Igepal.