

PAXON[®] HDPE

High Density Polyethylene

7004 Rotational Molding Resin

Description

7004 is a UV-stabilized, 35 mesh crosslinkable HDPE powder intended for use in rotational molding. Properly molded parts made with 7004 exhibit excellent impact strength, tear strength, tensile creep resistance, as well as exceptional stress crack resistance. This resin is available in various colors, plus natural.

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 ¹
Classification			
Density	ASTM D-1505	lbs/ft ³ (g/cm ³)	59.0 (0.945)
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 ²	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 ³	ASTM D-1693	hrs	>1,000
Thermal			
Vicat Softening Temperature	ASTM D-1525	°F (°C)	250 (121)
Heat Deflection Temperature, 66 psi load	ASTM D-648	°F (°C)	150 (66)
Processing			
Bulk density	ASTM D-1895	lbs/ft ³ (kg/m ³)	36 (576)

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.