Exelene® HDPE

Product Data Sheet

High Density Polyethylene

HDPE homopolymer

Extrusion-Blow Molding

6007M

Melt Flow Rate	0.7
Density	0.962

Applications

- Bottles for liquid foods (milk, water, juice) or powdered foods.
- Corrugated pipe, Drain Tile, Composite lumber

Characteristics

- The Exelene resin HDPE 6007M meets the requirements of section 177.1520, paragraph C, from chapter 21 denominated “Olefin Polymers” from the Code of Federal Regulations of the FDA, to be utilized with direct food contact.

Properties		ASTM Testing	Units	Values
Resin Properties				
Melt Flow Rate	MFI_2	D 1238 (190°C; 2,16 kgf)	g/10 min	0.7
	HLMFI	D 1238 (190°C; 21,6 kgf)	g/10 min	50
Density		D 792 (23°C)	g/cm^3	0.962
Properties in standard test tubes by compression molding				
Tensile Strength @ yield		D 638 (50 mm/min, IV)	psi	4,400
Elongation @ break		D 638 (50 mm/min, IV)	%	> 300
Tangential Modulus of Elasticity		D 790 I/B (13 mm/min; 3,2 mm)	psi	240,000
Tensile Impact Strength		D 1822 (S)	ft x lb / in^2	60
Durometer hardness (Shore D)		D 2240 D (23°C; 1 s)	----	65
Brittleness Temperature		D 746A (F50; 25 lbfXin)	°C	< -76
Vicat Softening Point		D 1525A (50°C/h; 1,0 kgf)	°C	130
Deflection Temperature Under Load		D 648 (2°C/min; 66 psi)	°C	79
ESCR	Condition A (1)	D 1693A (F50; 3,1 mm)	h	15-20
	Condition B (2)	D 1693B (F50; 1,9 mm)	h	8 -10

(1) Condition A: Grooved Specimen with thickness of 3,175 mm = 0,125 inch in 100 % Igepal CO-630 at 50°C
(2) Condition B: Grooved Specimen with thickness of 1,905 mm = 0,075 inch in 100 % Igepal CO-630 at 50°C

Revision 15-03-2024