



# Exelene® HDPE

## Product Data Sheet

**High Density Polyethylene**  
**HDPE homopolymer**  
**Extrusion-Blow Molding**

# 6007M

**Melt Flow Rate 0.65**

**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
<b>Resin Properties</b>			
Melt Flow Rate	MFI <sub>2</sub> D 1238 (190°C; 2,16 kgf)	g/10 min	0.65
	HLMFI D 1238 (190°C; 21,6 kgf)	g/10 min	50.00
Density	D 792 (23°C)	g/cm <sup>3</sup>	0.962
Additives	Antioxidant	ppm	300-600
<b>Properties in standard test tubes by compression molding</b>			
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 <sup>2</sup>	60
Durometer hardness (Shore D)	D 2240 D (23°C; 1 s)	----	65
Brittleness Temperature	D 746A (F50; 25 lbXin)	°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 <sup>(1)</sup> D 1693A (F50; 3,1 mm)	h	15-20
	Condition B <sup>(2)</sup> 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