

High Density Polyethylene HS5407

Description:

HS5407 is a high molecular weight, high-density polyethylene, copolymer. Exhibit excellent wall thickness uniformity, an improved balance between stiffness and impact and high environmental stress cracking resistance (ESCR).

Applications:

Blow Molded Large Parts: Drums for chemical, agricultural and food products up to 200 liters; Sheet extrusion for pickup rear protectors (bedliner).

Additives:

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Process:

Blow Molding.

Control Properties:

	ASTM Methods	Units	Values
Melt Flow Rate (190°C/5kg)	D 1238	g/10 min	0.30
Melt Flow Rate (190°C/21.6kg)	D 1238	g/10 min	7.0
Density	D 792	g/cm ³	0.954

Typical Properties:

Plaque Properties^a

	ASTM Methods	Units	Values
Tensile Strength at Break	D 638	MPa	40
Flexural Modulus 1% Secant	D 790	MPa	1250
Charpy Impact Strength at -40°C	D 6110	J/m	NB
Environmental Stress Cracking Resistance ^b	D 1693	h/F50	170
Environmental Stress Cracking Resistance ^c	D 1693	h/F50	>1000
Deflection Temperature under Load at 0.455 MPa	D 648	°C	70

(a) Test specimens prepared from compression molded sheet made according to ASTM D 4703.

(b) Compression molded 2 mm thickness, 0.3 mm notched-plaques. 10% Igepal. 50°C.

(c) Compression molded 2 mm thickness, 0.3 mm notched-plaques. 100% Igepal. 50°C.

Recommended Processing Conditions:
Temperature Profile:

- Feeding Zone: 180°C to 190°C
- Barrel: 190°C to 200°C
- Die: 210°C
- Mold Temperature Range: 5°C to 25°C

