

High Density Polyethylene SGF4960

Description:

SGF4960 is a homopolymer high-density polyethylene, developed for the blow-molding segment with high density and stiffness combined with high impact resistance.

The minimum biobased content of this grade is 96%, determined according to ASTM D6866.

Application:

Bottles for food applications such as dairy products and beverages;

Rigid containers for non-food applications such as cosmetics and lubricant oils;

Caps & closures molded by compression;

Rigid containers for pharmaceutical applications (complies with USP 33).

Process:

Blow Molding.

Control Properties:

	ASTM Method	Units	Values
Melt Flow Rate (190/2.16)	D 1238	g/10 min	0.34
Melt Flow Rate (190/21.6)	D 1238	g/10 min	28
Density	D 792	g/cm ³	0.962

Typical Properties:

Plaque Properties^a

	ASTM Method	Units	Values
Tensile Strength at Yield	D 638	MPa	30
Tensile Strength at Break	D 638	MPa	35
Flexural Modulus – 1% Secant	D 790	MPa	1400
Shore D Hardness	D 2240	-	64
Izod Impact Strength	D 256	J/m	225
Environmental Stress Cracking Resistance ^b	D 1693	h/F50	25
Deflection Temperature under Load at 0.455 MPa	D 648	°C	79
Vicat Softening Temperature at 10 N	D 1525	°C	129

(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. 100% Igepal. 50°C.

