

## 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 <sup>3</sup>	0.962

### Typical Properties:

#### Plaque Properties<sup>a</sup>

	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 <sup>b</sup>	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.

### Final Remarks:

- This resin meets the requirements for olefin polymers as defined in 21 CFR, section 177.1520 issued by FDA – Food and Drug Administration in force on the date of publication of this specification. The additives present are covered in appropriate regulation by FDA
- The information presented in this Data Sheet reflects typical values obtained in our laboratories, but should not be considered as absolute or as warranted values. Only the properties and values mentioned on the Certificate of Quality are considered as guarantee of the product.
- In some applications, Braskem has developed tailor-made resins to reach specific requirements.
- In case of doubt regarding utilization, or for other applications, please contact our Technical Assistance.
- For information about safety, handling, individual protection, first aids and waste disposal, please see MSDS. CAS Registry number: 9002-88-4
- The mentioned values in this report can be changed at any moment without Braskem previous communication.
- Unless specified, Braskem does not recommend the use of this grade for the fabrication of packages, parts or any other type of product designed to medical applications.
- The content of this Data Sheet replaces previous revisions published for this product.
- This resin does not contain the substance Bisphenol A (BPA, CAS # No. 80-05-7) in its composition.