# Braskem PE SGD4960

### High Density Polyethylene

#### Braskem America Inc.

#### Message:

SGD4960 is a high density polyethylene homopolymer especially designed for blow molding processing. It features 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. Containers for non-food applications such as alcohol, cosmetics and lubricant oils. Process:

Blow Molding.

General Information			
Features	Rigidity, high		
	High density		
	Homopolymer		
	Impact resistance, high		
Uses	Cosmetics		
	Bottle		
	Container		
Agency Ratings	FDA 21 CFR 177.1520		
Processing Method	Blow molding		
	Compression molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.961	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
190°C/2.16 kg	0.70	g/10 min	ASTM D1238
190°C/21.6 kg	50	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance			ASTM D1693
2.00mm, 10% Igepal, molded, F50	19.0	hr	ASTM D1693
2.00mm, 100% Igepal, molded, F50	24.0	hr	ASTM D1693
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D, Compression Molded)	64		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength			ASTM D638
Yield, molding	32.0	MPa	ASTM D638
Fracture, molding	22.0	MPa	ASTM D638
Flexural Modulus - 1% Secant			
(Compression Molded)	1600	MPa	ASTM D790

Impact	Nominal Value	Unit	Test Method
Unnotched Izod Impact (Compression			
Molded)	89	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (0.45			
MPa, Unannealed, Compression Molded)	79.0	°C	ASTM D648
Vicat Softening Temperature	128	°C	ASTM D1525 <sup>2</sup>
Additional Information	Nominal Value	Unit	Test Method
Biobased Content	> 96	%	ASTM D6866
NOTE			
1.	0.3mm notched-plaques		
2.	压力1 (10N)		

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