# Braskem PE SGD4960

### High Density Polyethylene

Braskem America Inc.

#### Message:

SGD4960 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.

General Information			
Features	BPA Free		
	High Density		
	High Impact Resistance		
	High Stiffness		
	Homopolymer		
	Renewable Resource Content		
Uses	Blow Molding Applications		
	Blown Containers		
	Bottles		
	Containers		
	Cosmetic Packaging		
Agency Ratings	ASTM D 6866		
	FDA 21 CFR 177.1520		
Forms	Pellets		
Processing Method	Blow Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.962	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
190°C/2.16 kg	0.70	g/10 min	
190°C/21.6 kg	50	g/10 min	
Environmental Stress-Cracking Resistance			ASTM D1693
50°C, 2.00 mm, 10% Igepal, Compression Molded, F50	19.0	hr	
50°C, 2.00 mm, 100% Igepal,			
Compression Molded, F50	24.0	hr	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D, Compression Molded)	64		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method

Yield, Compression Molded	32.0	MPa	
Break, Compression Molded	22.0	MPa	
Flexural Modulus - 1% Secant			
(Compression Molded)	1730	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched 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)	85.0	°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.	0.3 mm notched-plaques		
2.	Loading 1 (10 N)		

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#### Recommended distributors for this material

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