# Braskem PE SGM9450F

### High Density Polyethylene

#### Braskem

#### Message:

SGM9450F is a high-density polyethylene, developed for the high molecular weight film extrusion segment produced with bimodal technology. The film produced from this resin has high tenacity and excellent resistance to impact characteristics. This resin has wide molar mass distribution that makes it easier to process.

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

Bags in general (like T-shirt bags, Handle Bags, Star Bags, others); Geomembranes.

General Information					
Features	BPA Free				
	Food Contact Acceptable				
	High Impact Resistance				
	High Molecular Weight				
	MedWide Molecular Weight Distrib.				
	Renewable Resource Content				
Uses	Bags				
	Film				
	Geo Membranes				
	Packaging				
	Packaying				
Agency Ratings	ASTM D 6866				
	FDA 21 CFR 177.1520				
Forms	Pellets				
Processing Method	Blown Film				
	Film Extrusion				
Physical	Nominal Value	Unit	Test Method		
Specific Gravity	0.952	g/cm <sup>3</sup>	ASTM D792		
Melt Mass-Flow Rate (MFR)			ASTM D1238		
190°C/21.6 kg	9.3	g/10 min			
190°C/5.0 kg	0.33	g/10 min			
Films	Nominal Value	Unit	Test Method		
Film Thickness - Tested	13	μm			
Tensile Strength			ASTM D882		
MD : Yield,13 µm, Blown Film	40.0	MPa			
TD : Yield,13 µm, Blown Film	30.0	MPa			
MD : Break, 13 µm,Blown Film	85.0	MPa			

TD : Break, 13 µm,Blown Film	45.0	MPa	
Tensile Elongation			ASTM D882
MD : Break, 13 µm,Blown Film	590	%	
TD : Break, 13 µm,Blown Film	740	%	
Dart Drop Impact <sup>1</sup> (13 µm, Blown Film)	250	g	ASTM D1709
Elmendorf Tear Strength			ASTM D1922
MD : 13 µm, Blown Film	58	g	
TD : 13 µm, Blown Film	51	g	
Seal Initiation Temperature (13 µm, Blown			
Film)	125	°C	Internal Method
Additional Information	Nominal Value	Unit	Test Method
Biobased Content	> 96	%	ASTM D6866
Puncture Resistance - Blown Film (12.5 µm)	80.0	J/m	Internal Method
NOTE			
1.	F50		

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#### Recommended distributors for this material

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