

# Braskem PE IDEALIS500

High Molecular Weight Polyethylene

Braskem America Inc.

## Message:

Description:

Braskem Idealis500 is the only High Molecular Weight Polyethylene resin in powder form specially designed for the compression molding process.

Applications:

Applications range from food handling cutting boards and playground toys to technical parts.

General Information			
Features	Food Contact Acceptable		
	High Molecular Weight		
Uses	Non-specific Food Applications		
	Toys		
Agency Ratings	FDA 21 CFR 177.1520		
Forms	Powder		
Processing Method	Compression Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.951	g/cm <sup>3</sup>	ASTM D792
Apparent Density	0.45	g/cm <sup>3</sup>	ASTM D1895
Melt Mass-Flow Rate (MFR) (190°C/21.6 kg)	0.70	g/10 min	ASTM D1238
Average Molecular Weight	550000	g/mol	Internal Method
Average Particle Size <sup>1</sup>	170	µm	
Intrinsic Viscosity	4.7	dl/g	ASTM D4020
Abrasion Index <sup>2</sup>	80		Internal Method
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D, 15 sec)	63		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength			ASTM D638, ISO 527-2
Yield	> 20.0	MPa	
Break	> 30.0	MPa	
Tensile Elongation (Break)	> 500	%	ASTM D638, ISO 527-2
Flexural Modulus	930	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength <sup>3</sup>	> 50	kJ/m <sup>2</sup>	ISO 11542-2
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	80.0	°C	ASTM D1525 <sup>4</sup>
Melting Temperature	136	°C	

NOTE	
1.	Dp50
2.	reference PE500 = 100
3.	Determined with double-notched specimens (14° v-notch on both sides) in accordance with ISO 11542-2
4.	Loading 2 (50 N)

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