

Idealis 500

High Molecular Weight Polyethylene

Braskem

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			
UL YellowCard	E120161-100045082		
Features	High Molecular Weight		
Uses	Engineering Parts		
	Non-specific Food Applications		
	Toys		
Agency Ratings	FDA 21 CFR 177.1520(c) 2.1		
	FDA 21 CFR 177.1520(c) 2.2		
Forms	Powder		
Processing Method	Compression Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.951	g/cm³	ASTM D792
Apparent Density	0.45	g/cm³	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 ¹	170	µm	ASTM D1921
Intrinsic Viscosity	4.7	dl/g	ASTM D4020
Abrasion ²	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 ³	> 50	kJ/m²	ISO 11542-2
Thermal	Nominal Value	Unit	Test Method


Vicat Softening Temperature	80.0	°C	ASTM D1525 ⁴
Peak Melting Temperature	136	°C	ASTM D3418
NOTE			
1.	Dp50		
2.	Reference PE500 = 100, Sand Slurry Method		
3.	Double-notched Specimen, 14° v-notch on both sides		
4.	Loading 2 (50 N)		

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