

Plantic® GP100

Biodegradable Polymers

Plantic Technologies Limited

Message:

Plantic Technologies Limited develops and produces advanced bio-based materials. Plantic® is an innovative product made from corn-starch (maize) that is Australian grown and non-genetically modified. Plantic® is an Australian registered trademark of Plantic Technologies Limited.

Plantic® GP100 is a general purpose thermoplastic starch (TPS) polymer formulated for injection molding. It has been designed to be used in general applications with a wall thickness between 1.0 - 3.0 mm.

General Information			
Features	Biodegradable		
	Food Contact Acceptable		
	Renewable Resource Content		
Uses	General Purpose		
Forms	Granules		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.43	g/cm ³	ASTM D792
Molding Shrinkage - Flow	0.90 to 1.2	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	54		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1200	MPa	ASTM D638
Tensile Strength (Yield)	< 42.0	MPa	ASTM D638
Tensile Elongation (Break)	110	%	ASTM D638
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	66	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (0.45 MPa, Unannealed)	44.0	°C	ASTM D648
Vicat Softening Temperature	55.3	°C	ASTM D1525
Injection	Nominal Value	Unit	
Drying Temperature	70.0	°C	
Drying Time	6.0 to 8.0	hr	
Suggested Max Moisture	2.0 to 3.0	%	
Rear Temperature	110 to 150	°C	
Middle Temperature	150 to 170	°C	
Front Temperature	160 to 190	°C	
Nozzle Temperature	170 to 190	°C	
Processing (Melt) Temp	180 to 200	°C	

Mold Temperature	25.0 to 50.0	°C
Back Pressure	0.00 to 10.0	MPa
Screw Speed	50 to 150	rpm

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Recommended distributors for this material

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