Biograde D-1M

Biodegradable Polymers

Biograde Group of Companies

Message:

A Hybrid resin for rigid moulding and extrusion applications where Biodegradability is not required.
For use in applications where the use of renewable resources are desired.
Can be used for injection moulding
BIOGRADE DM is based on a blend of thermoplastic starch (TPS) and polyolefin's. This grade of resin is compatibilised to offer a high level of mechanical strength, good elongation properties and toughness. The resin is based on corn starch which is a renewable material.
Applications
Injection moulded products such as cutlery, toothbrushes, combs, shavers, golf-tees, etc.
Stakes and pegs
Horticultural products such as flower pots and stakes
Injection moulded caps and closures
Disposable plates and produce trays

General Information	
Features	Biodegradable
	Good Toughness
	High Elongation
	High Strength
	Renewable Resource Content
Uses	Aircraft Interiors
	Caps
	Closures
	Disposable Tableware
	Lawn and Garden Equipment
	Personal Care
	Sporting Goods
	Support Trays
	Toothbrush Handles
Forms	Pellets
Processing Method	Extrusion
	Injection Molding

Physical	Nominal Value	Unit	Test Method
Density	1.08	g/cm³	ASTM D4883
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	7.0 to 7.5	g/10 min	ASTM D1238
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength			ASTM D883

Yield	> 13.0	MPa	
Break	> 13.0	MPa	
Tensile Elongation (Break)	> 200	%	ASTM D883
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact	31	J/m	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Peak Melting Temperature	90.0	°C	ASTM D3418
Injection	**Nominal Value**	**Unit**	
Suggested Max Moisture	0.20	%	
Middle Temperature	170 to 180	°C	
Front Temperature	150 to 160	°C	
Nozzle Temperature	180 to 190	°C	
Processing (Melt) Temp	160 to 165	°C	
Mold Temperature	10.0 to 15.0	°C	
Extrusion	**Nominal Value**	**Unit**	
Suggested Max Moisture	0.20	%	
Melt Temperature	160 to 165	°C	

Recommended distributors for this material

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