Cardia Biohybrid™ BL-F

Thermoplastic Starch + PE

Cardia Bioplastics™

Message:

Cardia Biohybrid™ BL-F masterbatch is a homogenous blend of thermoplastic starch (TPS) with polyethylene (PE). This blendable grade is compatibilised to offer a high level of mechanical strength, outstanding elongation properties and toughness. The resin is based on corn starch which is a renewable material. This TPS/PE masterbatch can be blended with a wide range of polyolefin materials to tailor a product with properties perfectly matched to the application.
A Biohybrid resin for film applications offering a significant reduction in carbon footprint (compared to PE)
An effective contribution to sustainability where biodegradability/compostability is not required.
Blendable with LDPE, LLDPE, HDPE and PP resins.
Used for thin and thick gauge film and blow moulding applications.
Cardia Biohybrid™ BL-F is formulated with 66% of annually renewable starch. This versatile resin is suitable for a wide range of products manufactured by blown film extrusion and extrusion blow molding as well as injection molding processes. Due its content of polyolefins the material is not a compostable polymer and is not intended for ultimate disposal in commercial composting facilities. For applications in which biodegradability/compostability is required we recommend the usage of Cardia Compostable B-F resin.
Application Examples
Shopping bags/Check-out bags
Garbage bags
Leaf litter bags
Bin liners
Overwrap Packaging
Disposable or industrial bottles

General Information	
Features	High strength
	Updatable resources
	Good toughness
	Biodegradable
	Compliance of Food Exposure
	Extended tensile rate
Uses	Packaging
	Films
	Lining
	Blow molding applications
	Bags
	Mixing
	Masterbatch
	Bottle
	Heavy packing bag
Agency Ratings	European 2002/72/EC
Processing Method	Blow film
	Blow molding
	Extrusion blow molding

Injection molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.18	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	1.2	g/10 min	ASTM D1238
Moisture Content		%	Internal method
Tear Resistance (30.0 µm)	130	N	ASTM D1922
Biobased Content - Starch	66	%	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength			ASTM D883
Yield, 0.0300mm	> 25.0	MPa	ASTM D883
Fracture, 0.0300mm	> 20.0	MPa	ASTM D883
Tensile Elongation (Break, 0.0300 mm)	> 330	%	ASTM D883
Films	**Nominal Value**	**Unit**	**Test Method**
Film Thickness - Tested	30	µm	
Dart Drop Impact (30 µm)	200	g	ASTM D1709
Thermal	**Nominal Value**	**Unit**	**Test Method**
Peak Melting Temperature	90.0 - 100	°C	ASTM D3418
Additional Information	**Nominal Value**	**Unit**	

Above film properties are based on a 30µm blown film made from a blend of 50% BLF, 30% LLDPE and 20% LDPE

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Recommended distributors for this material

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