

Cardia Biohybrid™ H-F

Blown Film Hybrid Resin

High Renewable Resource Content

Description

Cardia Biohybrid™ H-F is based on a blend of thermoplastic starch (TPS) with Polyethylene. This grade of resin is compatibilised to offer a high level of mechanical strength, elongation properties and toughness. The resin is based on corn starch which is a renewable material.

- 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.
- Designed for thin and thick gauge film applications.

Specifications and Compliances

Cardia Biohybrid™ H-F is formulated with 50% of annually renewable thermoplastic starch polymer. This resin is suitable for a range of products manufactured by blown film extrusion and extrusion blow molding as well as injection molding processes.

Due its high content of polyolefins the material is not a fully biodegradable polymer and is not intended for ultimate disposal in commercial composting facilities. For applications in which 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

Physical Properties of Cardia Biohybrid H-F Resin

<i>Properties</i>	<i>Test Method</i>	<i>Value</i>	<i>Unit</i>
Melt flow index	ASTM D-1238	1.0	g /10 min (2.16 kg/ 190°C)
Density	ASTM D-792	1.1	g/cm ³
Melting Temperature Range	ASTM D-3418	90 - 130	deg. C
Moisture Content	Internal	<0.6	%

Physical Properties of a typical Cardia BL-F Film

<i>Properties</i>	<i>Test Method</i>	<i>Value</i>	<i>Unit</i>
Tensile strength at yield	ASTM D833	> 13	MPa
Tensile strength at break	ASTM D833	> 13	MPa
Elongation at break	ASTM D833	350	%

Transport, Storage and Handling

Cardia Bioplastics Materials should be transported, stored and handled in cool and dry environments without exposure to direct sunlight. More information can be retrieved from the Processing Guidelines available through your Cardia Bioplastics sales representative.

Safety

A Material Safety Data Sheet (MSDS) is available on request. Please contact your Cardia Bioplastics sales representative.

Processing Conditions

Cardia Biohybrid™ H-F materials can be easily processed on standard plastic process equipment. Processing guidelines are unique to this material and are available on request from the Cardia Bioplastics sales representative.

Food Contact

In certain applications Cardia Biohybrid™ H-F can be suitable for direct contact with foodstuffs as per Directive 2002/72/EC (previously 90/128/EWG and amendments). More information can be found in the Info "FOOD CONTACT Compliance of Cardia Biohybrid Resins" available on our Website. In order to discuss a specific food contact application please contact Cardia Bioplastics' Technical Service.

Disclaimer

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