

Cardia Compostable B-F12

Blown Film Resin

Biodegradable during Composting in Professionally Managed Facilities and in Home and Garden Composting Environments

Description

Cardia Compostable B-F12 is a biodegradable and compostable resin based on a blend of thermoplastic starch (TPS), biodegradable polyesters and natural plasticizers. This grade of resin is compatibilised to offer a high level of mechanical strength, outstanding elongation properties and toughness. The resin is derived from renewable resources including non-GMO corn starch.

Application Examples

- Compostable bags
- Shopping bags/Check-out bags
- Garbage bags
- Leaf litter bags
- Magazine wrap
- Produce and meat liners
- Overwrap Packaging
- Mulch film
- Green bin liners
- Hygiene film / back sheet

Specifications and Compliances

Cardia Compostable B-F12 resin is biodegradable and certified compostable in typical home and garden composting environments for film and bag applications up to a maximum thickness of 60 microns.

Cardia Compostable B-F12 complies with:

- Australian Standard AS 5810, “Biodegradable plastics suitable for home composting”, certified by the Australasian Bioplastics Association (ABA), Australia
- French Standard NF T 51-800 “Plastics — Specifications for plastics suitable for home composting”, certified by Din Certco, Germany

Cardia Compostable B-F12 resin is biodegradable and certified compostable in professionally managed / industrial composting facilities for film and bag applications up to a maximum thickness of 134 microns.

Cardia Compostable B-F12 complies with:

- European Standard EN13432-2000 “Requirements for packaging recoverable through composting and biodegradation”, certified by Din Certco, Germany
- USA Standard ASTM D6400 – “Standard Specification for Compostable Plastics”, certified by Biodegradable Products Institute (BPI), USA
- Australian Standard AS 4736 – “Biodegradable Plastics suitable for composting and other microbial treatment”, certified by Australasian Bioplastics Association (ABA), Australia



Physical Properties of Cardia Compostable B-F12

<i>Properties</i>	<i>Test Method</i>	<i>Typical Value*</i>	<i>Unit</i>
Melt Flow Index	ASTM D -1238	1.3 – 3.8	g/ 10 min (190 °C / 2.61 kg)
Density	ASTM D-792	1.2	g/cm ³
Melting Temperature Range	ASTM D-3418	85 - 102	deg. C
Moisture Content	Internal Standard	<0.6	%
Tensile Strength, MD	ASTM D-882	> 28	MPa
Tensile Strength, TD	ASTM D-882	> 22	MPa
Elongation at Break, MD	ASTM D-882	> 270	%
Elongation at Break, TD	ASTM D-882	> 470	%
Elastic Modulus, MD	ASTM D882	>220	N/mm ²
Elastic Modulus, TD	ASTM D882	>140	N/mm ²
Impact Resistance-Dart Test	ASTM D-1709	>270	g
Tear propagation, MD	ASTM D-1922	2.3	Newton
Tear propagation, TD	ASTM D-1922	1.5	Newton

*) Typical values based on a blown film of 20 µm tested in standard lab conditions of 25°C and 50% RH

Packaging

Cardia Compostable B-F12 resin is available in 25kg bags and in 1 ton bulk packs (gaylords). The resin is packed in Al lined bags to protect it from absorption of moisture.

Colours and Additives

Cardia Compostable B-F12 is available in natural, black, white, purple, brown and green colours. Processing additives like anti-block and slip agent master batches are also available. All colours and additive master batches are certified compliant to the relevant standards for compostability.

Transport, Storage and Handling

Cardia Compostable B-F12 resin and products should be transported, stored and handled in cool and dry environments without exposure to direct sunlight. A detailed transport, storage and handling guideline is available through your Cardia Bioplastics™ sales representative.

Safety

A Safety Data Sheets (SDS) is available. Please contact your Cardia Bioplastics™ sales representative.

Processing Conditions

Cardia Compostable B-F materials can be processed on standard plastic processing equipment. Processing guidelines are unique to this material and are available on request from your Cardia Bioplastics™ sales representative.

Food Contact Packaging

Cardia compostable B-F12 resin can be safely used in certain food contact applications. For further information please contact your Cardia Bioplastics™ representative.

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