

## Cardia Biohybrid™ H-M03

Rigid Moulding Resin

High Renewable Resource Content

### Description

Cardia Biohybrid™ H-M03 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 impact resistance and toughness. The resin is based on corn starch which is a renewable material.

- A Biohybrid™ resin offering a significant reduction in carbon footprint (compared to polyolefins PE/PP)
- An effective contribution to sustainability where biodegradability/compostability is not required
- Designed for thin and thick gauge rigid moulding and extrusion applications.

### Specifications and Compliances

Cardia Biohybrid™ H-M03 is formulated with 50% of renewable thermoplastic starch polymer. This resin is suitable for a wide range of products manufactured by injection moulding or extrusion processes. Due to its content of polypropylene the material is not a fully biodegradable polymer and it is not intended for ultimate disposal in commercial composting facilities. If biodegradability or compostability is required, use of Cardia Compostable B-M or TBM resin is recommended.

### Application Examples

- 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 containers, caps and closures
- Disposable plates and produce trays

### Physical Properties of Cardia Biohybrid™ H-M03 Resin

<i>Properties</i>	<i>Test Method</i>	<i>Value</i>	<i>Unit</i>
<b>Melt flow index</b>	ASTM D1238	3.4 g/10 min	(2.16 kg/ 190°C)
<b>Density</b>	ASTM D4883	1.17	g/cm <sup>3</sup>
<b>Melting Temperature</b>	ASTM D3418	150-165	°C
<b>Tensile strength at break</b>	ASTM D638	> 15	MPa
<b>% Elongation at break</b>	ASTM D638	> 10	%
<b>Izod Impact-Notched</b>	ASTM D256	9.7	kJ/m <sup>2</sup> or J/m
<b>Mold Shrinkage</b>		1	%

### 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

Material Safety Data Sheets (MSDS) are available. Please contact your Cardia Bioplastics sales representative.

## Processing Conditions

Cardia Biohybrid™ H-M03 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-M03 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.

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## Disclaimer

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