



Competitive Green Technologies

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World-leading biomaterials technology

TECHNICAL DATA SHEET

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Biodegradable Resin: CGTECH-BCR-XX-Rev 8.1-5

Product Description:

The properties below are typical of our compostable bio-composite resins intended for injection molded single serve coffee capsules with Oxygen barrier.

Physical Properties	Typical Values*	Test Method
Melt Flow	15 g/min@190°C,2.16Kg	ASTM D1238
Bio-content	Over 40%	C-14 new carbon
Density	1.40 g/cm ³	ISO 1183
Notched Izod Impact @ 20°C	53 J/m	ASTM D256
Tensile Strength @ Yield (50mm/min)	42 MPa	ASTM D638
Tensile Modulus (50mm/min)	2.0 GPa	ASTM D638
Flexural Modulus (14mm/min)	1.70 GPa	ASTM D790
Tensile Elongation at Yield (%) (50mm/min)	8.0%	ASTM D638
Heat Deflection Temperature (°C)	82	ASTM D648
Moisture Content (%)	≤1	ASTM D6980
Oxygen Transmission Rate	1.5445 cc/m ² /24 hour	ASTM D3985

Note: *Values provided are typical and should not be interpreted as product specification.

The results reported are typical with the caveat that due to variable processing methods and conditions, no guarantees or warranties are expressed or implied, including expressions of fitness for purpose or merchantability.

In a hot beverage packaging consumer product, the oxygen transmission rate translates to 0.008cc/capsules/day on an average.

This is a patent pending formulation.