CJ BIOMATERIALS

BIOBASED, COMPOSTABLE STRAWS WITH PHACT™ PHA

Discover our PHACT PHA solutions for straws —compostable, durable, and designed to meet consumer preferences for safe, sustainable, and functional straws.

Better End of Life Options

Third-party certified:

- Marine biodegradable
- Home compostable
- Soil biodegradable
- Industrial compostable
- 100% biobased
- Safe, non-toxic material

Improved Performance

- Reduced brittleness
- High impact resistance and durability
- Enhanced low temperature resistance
- Opaque and transparent options available

Meet High Market Demand

- Provide straws that meet the current demand for sustainable alternatives in the food & beverage industry
- Stable supply of PHA materials supports commercial-scale adoption

WHY COMPOSTABLE STRAWS MATTER

10 States have introduced legislation on EPR (Extended Producer Responsibility) for packaging and products in 2024

5 EPR packaging bills have passed in the U.S.

PHACT PHA is the perfect solution for compostable straws

Our PHAs are manufactured via the microbial fermentation of plant-based sugars. Our PHACT biopolymers exhibit mechanical and thermal properties comparable to polypropylene and polyethylene. PHA is safe, non-toxic, compostable in home and industrial settings, and biodegradable in marine and soil environments.

Certified Circularity

BPI COMPOSTABLE — COMMERCIALLY COMPOSTABLE ONLY. FACILITIES MAY NOT EXIST IN YOUR AREA. CERT #10529307

MARINE — OK bio-degradable — TÜV AUSTRIA — MARINE S2138

HOME — OK compost — TÜV AUSTRIA — HOME S2138

SOIL — OK bio-degradable — TÜV AUSTRIA — SOIL S2138

OK compost — TÜV AUSTRIA — INDUSTRIAL S2138

Certified Safe and Biobased

USDA CERTIFIED BIOBASED PRODUCT — PRODUCT 99%

OK biobased — TÜV AUSTRIA — ★★★★ S2138

FDA Food Contact

PHACT A1000P - FCN2281 (Amorphous PHA)

PHACT S1000P - FCN2330 (Semi-crystalline PHA)

APPROVED

PHACT PHA PORTFOLIO FOR STRAWS

CB0400A

CB0400A combines semi-crystalline and amorphous PHACT PHA for opaque straws with extended end-of-life certifications. The PHA components all hold certifications from BPI and TUV, ensuring they are home and industrial compostable, soil and marine biodegradable.

Properties	Units	ASTM No.	CB0400A
Forms	-		Pellet
Specific Gravity	-	D792	1.52
Hardness - Max	Shore D	D2240	50
Secant Modulus (1mm)	MPa	D638	1700
Elongation at Break	%		5
Ultimate Tensile Strength	MPa		30
Heat Deflection Temperature /0.455 MPa	°C	D648	140
Melting Point	°C	D3418	165
Glass Transition Temperature	°C		-5
Melt Flow Rate (190°C, 2.16Kg)	g/10 min	D1238	5

- Injection specimens conforms to ASTM D638. Crosshead speed 50 mm/min for tensile strength.
- Differential Scanning Calorimeter (DSC), peak of endotherm. Heating rate 10 °C/min.

CA1270P

CA1270P is a compound that combines the best properties of amorphous PHACT PHA and polylactic acid (PLA) offering enhanced manufacturing efficiency and translucency for straws. Our CA1270P grade is certified as industrially compostable by BPI and TUV.

Properties	Units	ASTM No.	CA1270P
Forms	-		Pellet
Specific Gravity	-	D792	1.22
Melting Point	°C	D3418	150~170
Glass Transition Temperature	°C		-17, 60
Melt Flow Rate (190°C, 2.16Kg)	g/10 min	D1238	~3

- The values reported are based on Differential Scanning Calorimeter(DSC) re-heat scan at 10 °C/min after cooling from 200°C. PLA and aPHA are not miscible and this product will reveal two distinct glass transition temperatures.

Contact US Here

CJ BIOMATERIALS DEVELOPS MEANINGFUL SOLUTIONS THAT POSITIVELY AFFECT OUR PLANET, HUMAN HEALTH AND WELL-BEING BY ADDRESSING THE CHALLENGES POSED BY PLASTIC WASTE. THE COMPANY INVENTS AND MANUFACTURES BIOPOLYMERS AND BIO-BASED CHEMICALS AS PART OF A LONG-TERM VISION TO CREATE A MORE SUSTAINABLE FUTURE, BY ENABLING TRUE CIRCULAR SOLUTIONS THAT REPLACE MANY NON-RECYCLABLE, NON-REUSABLE AND FOSSIL FUEL-BASED PLASTICS AND CHEMICALS.

FOR FURTHER DETAILS ABOUT THE PHACT PHA SOLUTION, PLEASE CONTACT US.

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