



PLANT BASED CUTLERY

The Plastic Crisis Unveiled

Every sip, every bite, every choice tainted by our toxic pact with plastic.



50%

of all plastic is for single-use¹.



91%

of plastic isn't recycled².



400 m

tonnes of plastic waste generated globally every year³.



1

credit-card worth of microplastics ingested by the average person each week⁴.

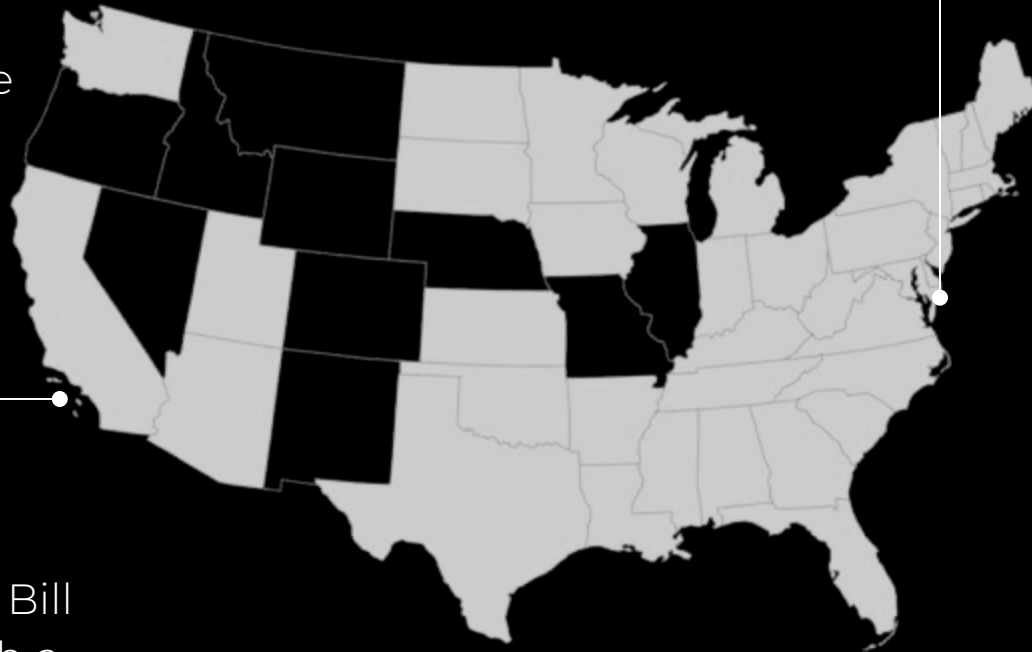
Governments are
drawing the line,
challenging industries
to evolve.

State-led
Actions:

26 states roll out
restrictions on single-use
plastics⁵.

Golden
Standards

California enacts Senate Bill
270, leading the way with a
statewide ban on single-use
plastics⁶.



City
Initiatives:

Washington DC and
New York City ban
select non-
compostable items and
require requests for
SUPs⁷.

Federal
Ambition:

The White House
targets 90% bio-based
plastics by 2050⁸.

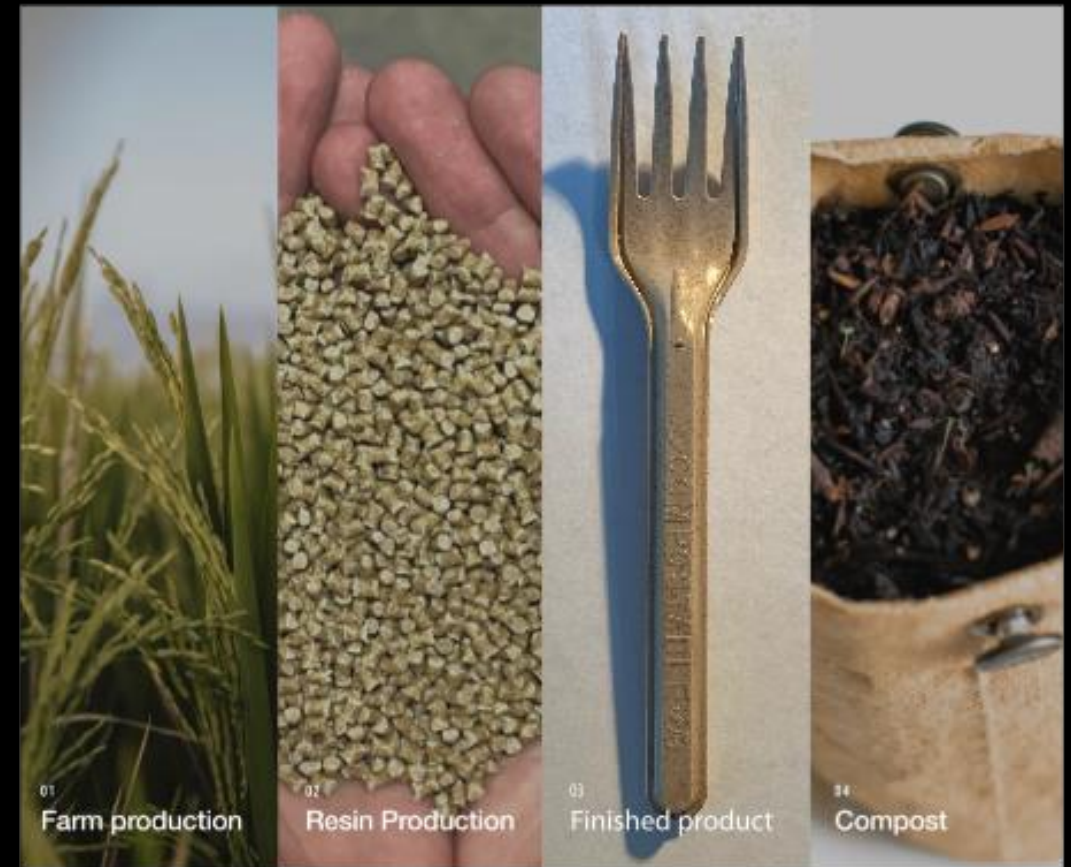
Plants Are The New Plastic

The Process

The Blulabs Solution

Blulabs offers a biopolymer that is superior to incumbent alternative plastics in cost, performance and scalability.

Blulabs' flagship CompostZero PHA resin is marine and soil biodegradable and home and industrial compostable.



Cost-effective compared to other
eco- friendly alternatives.

Seamless transition with
minimal switching costs.

Superior strength
outclassing standard
biopolymers.

The feel of traditional plastics,
minus the environmental guilt.



Upcycles agricultural
waste, benefiting the food
supply.

CompostZero: Safe for food,
fully compostable at home
microplastic without
residues

Patented
formulation
and
processing

The Opportunity

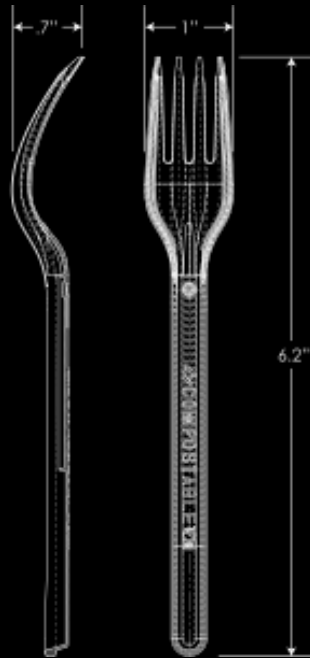
Partnering with Blulabs



Spec Sheets

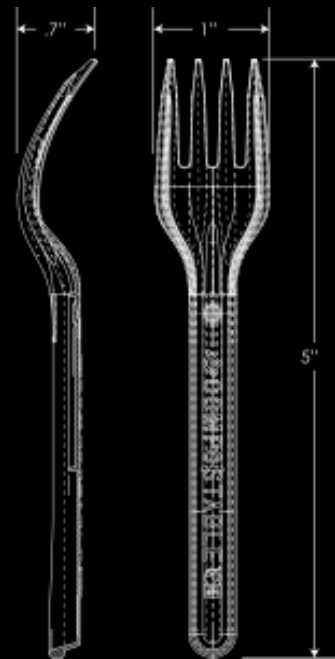
Product Specifications

Product Description	6" Compostable Fork - Bulk packed
Part Number	PSW-U-6F1000
Color	Natural
Product Dimensions	6" x 1" x 3/4"
Product Weight	4.65g - medium
Material	CompostZero Gelidus 0WR35
Compostability 100%	Industrial approved, home pending
Case Count	1,000
Container Loadability	5,780 cartons



Product Specifications

Product Description	5" Compostable Fork - Bulk packed
Part Number	PSW-U-5F1000
Color	Natural
Product Dimensions	5" x 1" x 3/4"
Product Weight	3.74g - small
Material	CompostZero Gelidus 0WR35
Compostability 100%	Industrial approved, home pending
Case Count	1,000
Container Loadability	6,904 cartons



Supply Chain + Manufacturing

Manufacturing	Capacity - Units
4 x facilities globally	100 million/month
· 1 x located in NC (USA)	total 1.2 billion/year
· 3 x located in China	total

Port of Export

- Yantian (SZ China) · Within 1.5 hours of all facilities ·
- Transit time to USA $\pm$ 30-35 days



Unlocking a Sustainable Tomorrow, Together

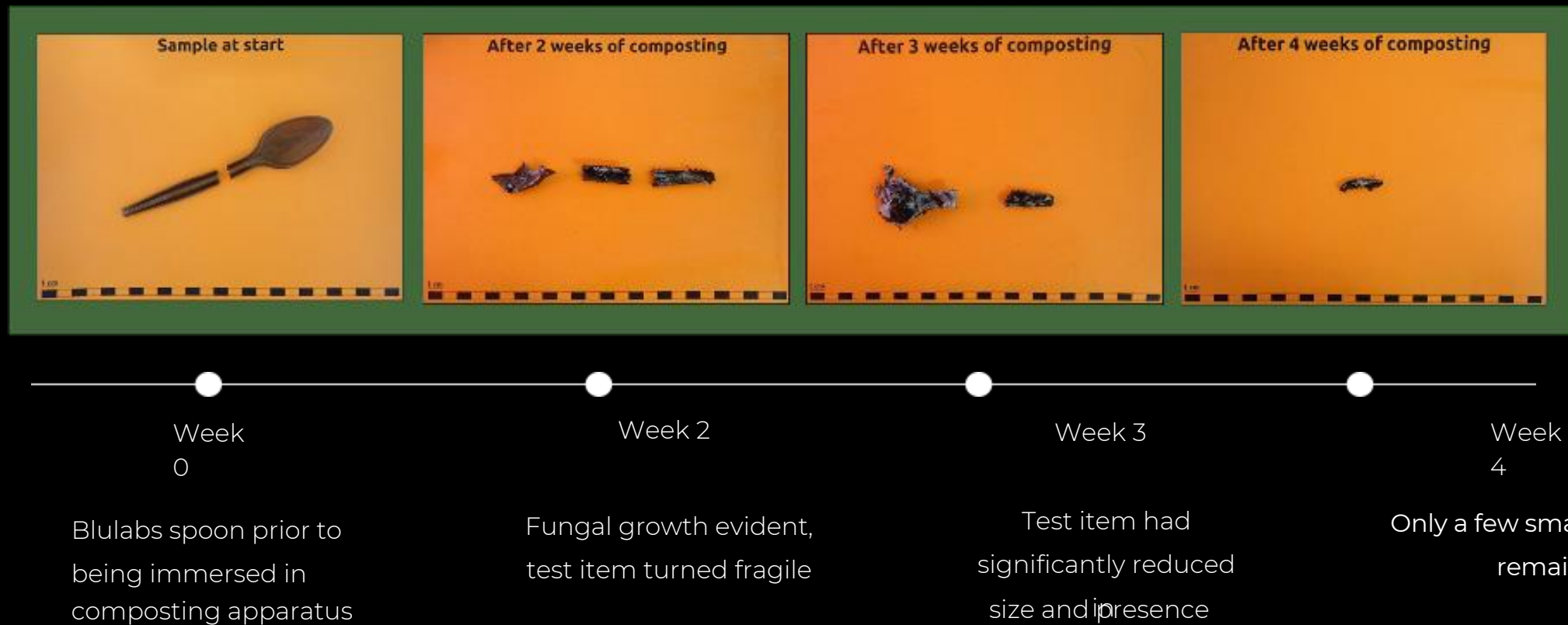


Testing and Certification

Compostability of CompostZero

External testing results from the BPI-certified testing laboratory

Results after just 4 weeks of industrial composting as per ASTM D6400



Compostability of CompostZero

External testing results from the BPI-certified testing laboratory

Results from disintegration testing home composting after just 8 weeks in

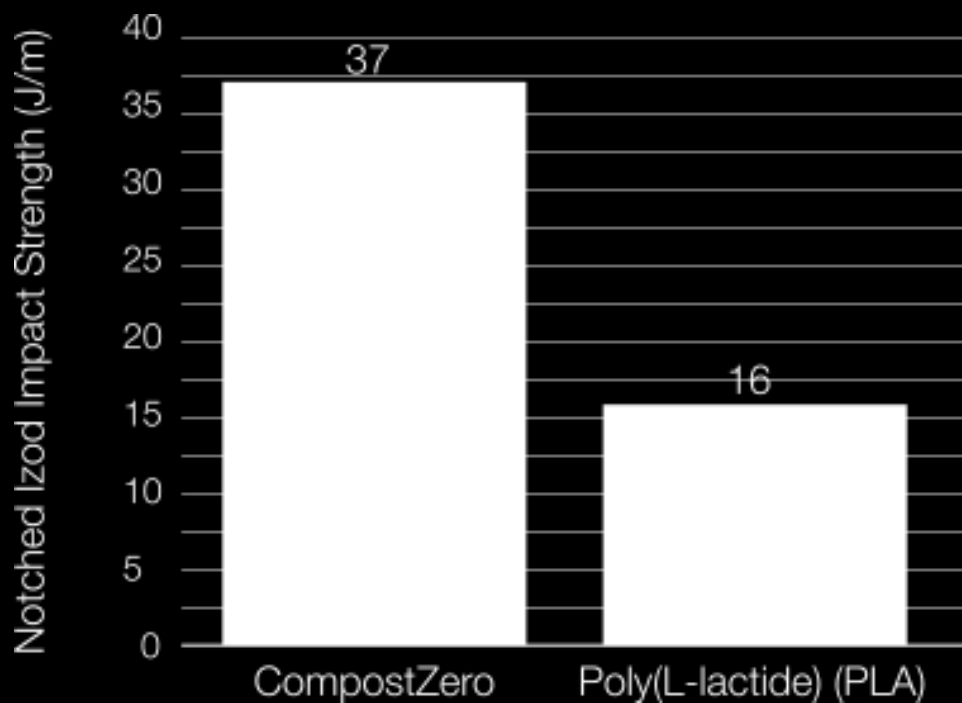


All pieces: few small
fragments, easily, soft and very
fragile

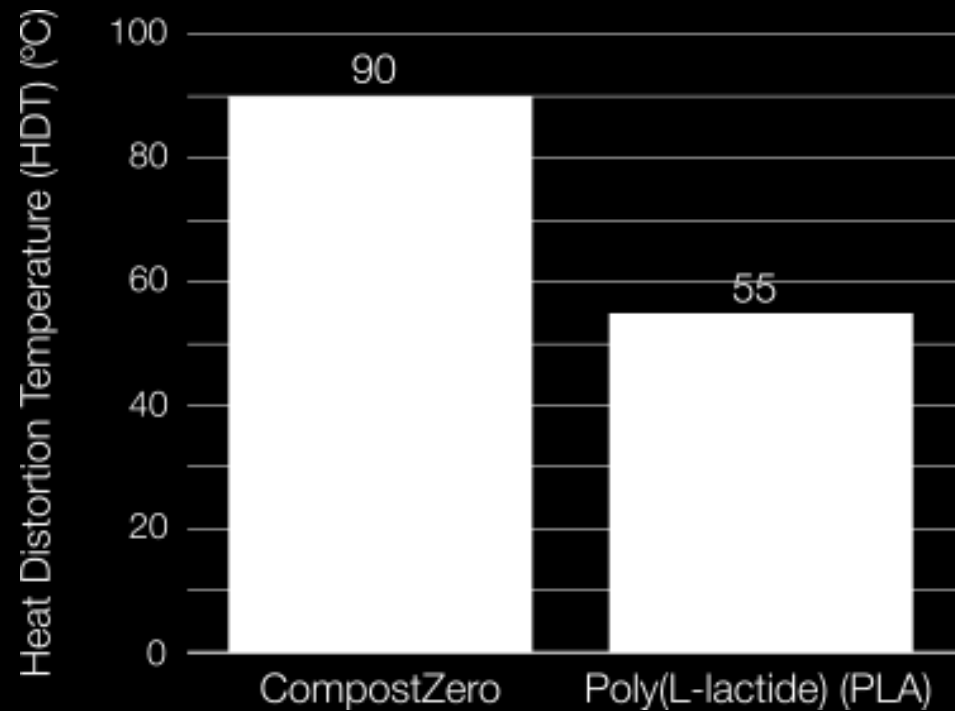
Not visually obvious in compost

CompostZero vs. PLA

Higher impact strength of Injection-Molded CompostZero than PLA

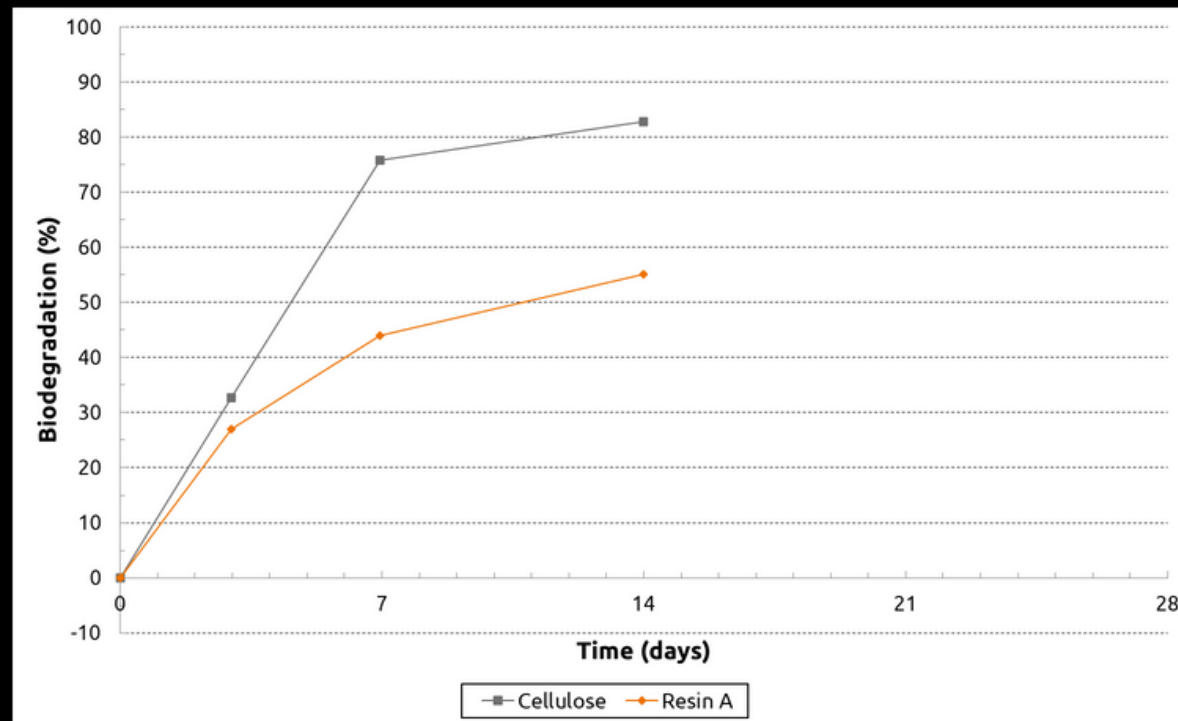


Higher bending resistance at temperatures with CompostZero than PLA



Marine Biodegradation Testing

Biodegradation in seawater, in accordance with the ASTM D6691 standard, is 90% carbon to CO₂ conversion to be reached within six months.



CompostZero reached 55% biodegradation in seawater in just 14 days

Heavy Metals and Fluorine

All values lay well below the maximum levels as prescribed by the standards –EN 13432 (2000), NF T51-800 (2-15), ASTM D 6400 (2023) and CAN/BNQ 0017-088 (2010)

Table 2. Heavy metals and fluorine content (ppm on total solids)

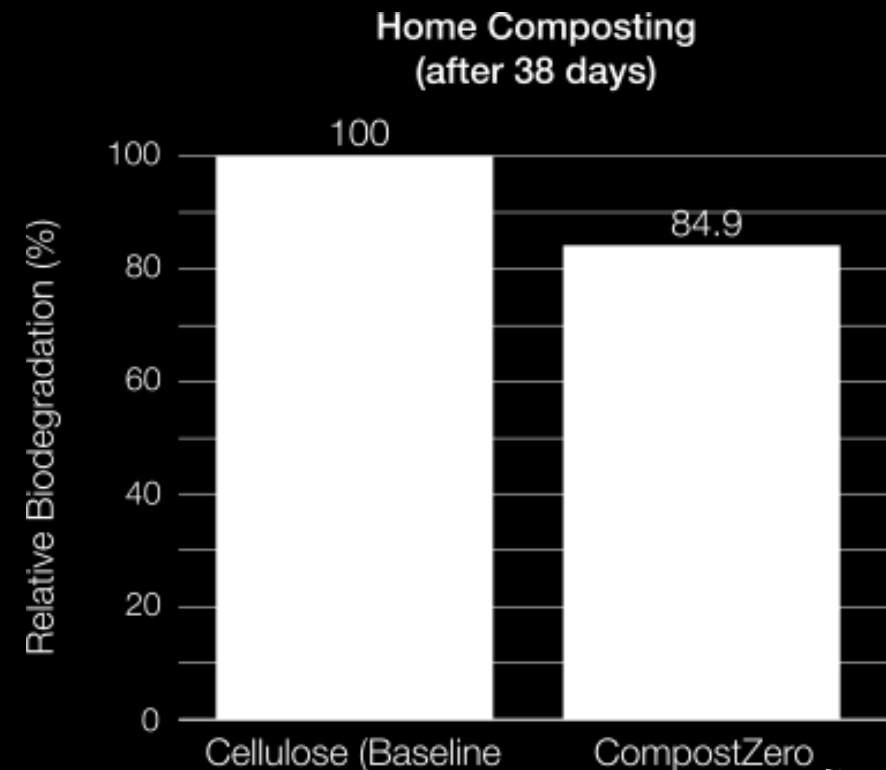
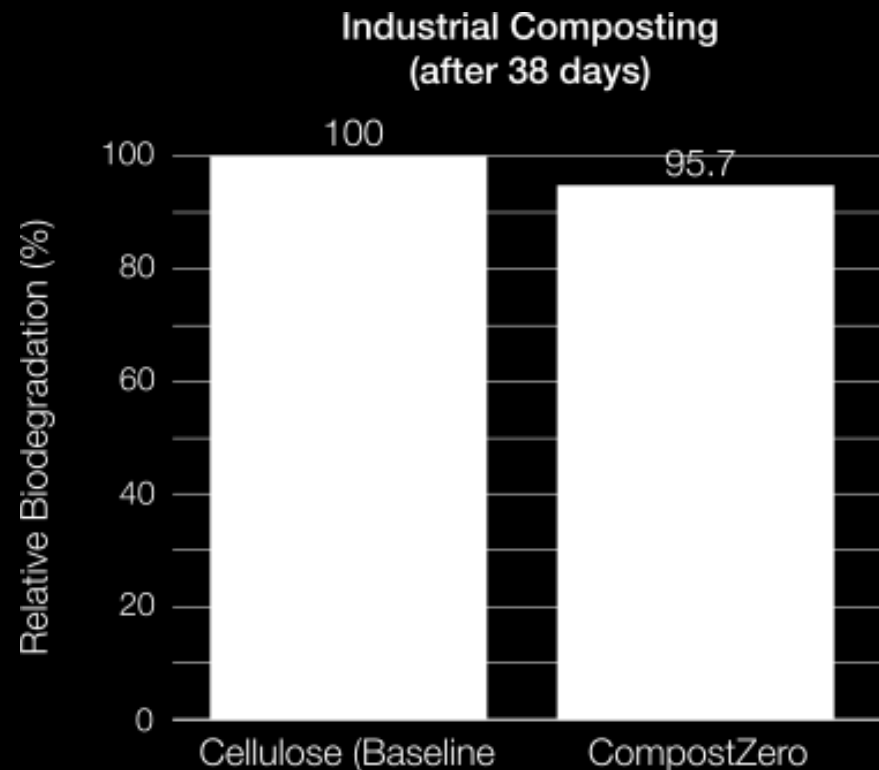
Analysis	Resin A	Resin B	Limit values				Test procedure
			Europe EN 13432 (2000)	France NF T51-800 (2015)	USA** ASTM D6400 (2023)	Canada CAN/BNQ 0017-088 (2010)	
Heavy metals*							
As	< 1.00	< 1.00	≤ 5	≤ 5	< 20.5	< 9.5	NBN EN ISO 11885
Cd	< 0.40	< 0.40	≤ 0.5	≤ 0.5	< 19.5	< 2.5	NBN EN ISO 11885
Co	< 2.00	< 2.00	-	≤ 38	-	< 19	NBN EN ISO 11885
Cr	< 5.00	< 5.00	≤ 50	≤ 50	-	< 132.5	NBN EN ISO 11885
Cu	< 5.00	< 5.00	≤ 50	≤ 50	< 750	< 94.5	NBN EN ISO 11885
Hg	< 0.10	< 0.10	≤ 0.5	≤ 0.5	< 8.5	< 0.5	NBN EN ISO 11885
Mo	< 0.50	< 0.50	≤ 1	≤ 1	-	< 2.5	NBN EN ISO 11885
Ni	< 5.00	< 5.00	≤ 25	≤ 25	< 210	< 22.5	NBN EN ISO 11885
Pb	< 25.0	< 25.0	≤ 50	≤ 50	< 150	< 62.5	NBN EN ISO 11885
Se	< 0.75	< 0.75	≤ 0.75	≤ 0.75	< 50	< 2	NBN EN ISO 11885
Zn	< 20.0	< 20.0	≤ 150	≤ 150	< 1400	< 231.5	NBN EN ISO 11885
Fluorine							
F	< 10	< 10	≤ 100	≤ 100	-	-	DIN 51723 mod.

* Microwave digestion was executed on the sample according to DIN EN 13656 Mod. for all heavy metals

** Maximum levels for USA (according to ASTM D6400 (2023) heavy metals content must be less than 50% of those prescribed for sludges or composts in the country where the product is sold; specifically in the United States, the regulated metal concentrations are found in Table 3 of 40 CFR Part 503.13)

Compostability of CompostZero (Relative Biodegradation from CO₂ evolution)

*As per Biodegradable Products Institute (BPI) standard – Aerobic
biodegradation test under controlled composting conditions – 58°C
(Industrial) and 28°C (Home)*



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Sources and References

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