

GROWN
bio

Mushroom[®] Packaging

100% home and marine compostable

We're here to replace fossil fuel based plastic foam and leave
the world better for generations to come



MycoComposite™

Ingredients | Hemp hurd + mycelium

Home-Compost | 45 days

Marine -Compost | 180 days

100% home-compostable. No industrial composting required. Simply break into small pieces and place them outside in the soil, allowing nutrients to return to the Earth.



Why MycoComposite™?

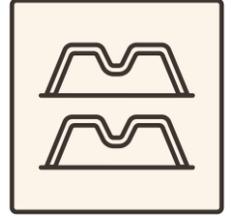
- + | Replacing plastic foam with a 100% natural and home-compostable alternative
- + | Zero waste
- + | Protective
- + | Insulating - Sound & temperature
- + | Water-resistant
- + | Fire-retardant
- + | Light
- + | Scalable - in any size, shape
- + | Carbon capturing
- + | Upcycling agricultural waste
- + | With a unique feel and velvet touch
- + | Future-proofing your brand

How do we grow?



We design your dream into a render reflecting the Mushroom® Packaging design considerations.

We make a negative of the design - a.k.a. mother mould - and thermoform as many as needed standard size multi-cavity growth trays from that.



Each product grows in one cavity in one week. We manufacture as little as possible moulds and reuse them as long as your delivery time allows us.

The growing process is stopped in our drying chambers. Et voila, here is your home-compostable packaging



Pricing

Our product pricing is based on many variables, such as the design, size of the packaging, quantity, delivery time. We work with you to ensure the lowest cost solution possible.

And if you decide to work with us, below are the set-up costs to keep in mind:

Prototyping €400-900/ each unique design

Set-up Cost for Production starting from €600 per each unique design

Transport of the order (depending on location)

We do our utmost to keep our prices competitive every day. However, as for our company principle, “use as little as possible packaging to minimize CO2 footprint”

For more info, get in touch!

How do we work together?



Preliminary Price Offer | 1 week

Tell us your

- product dimensions
- type of packaging
- estimated volume

We will come back to you as soon as possible



Design & Prototype | 3 - 4 weeks

We build your idea into a design, 3D print the mould, grow your first prototype in it, and send it to you for review.



Actual Order

Using standard size multi-cavity growth trays with as many cavities as we can fit. We re-fill the moulds on a weekly basis.

No MOQ

Duration: 1 packaging grows in 1 week, the more packaging needed in 1 week, the more moulds we would buy.

Packaging types to consider

Pack type

a

2-part, top & bottom - fully covered



b

1 part, fully sink in



c

2-part, sink-in - top & bottom - half closure



Considerations for your design while working with Mushroom® Packaging



Draft Angles

There should be at least a 3-degree draft angle on all vertical walls so that the part will more easily pop out of the mould.



Wall Thickness

The walls should have a minimum thickness of 15mm to ensure they are structurally sound.



Edges

Every edge should have a fillet with a minimum radius of 4mm to achieve a smooth surface with the substrate.



Flat side

Each part should have one side completely flat which is the filling side of the mould

Material properties

ATTRIBUTE	STANDARD	Performance
Compressive strength [kPa,10% Compression]	ASTM D695	2,1 – 46
Compressive strength [x105 Pa,50% Compression]	ASTM D695	4,9-17,9
Flexural strength [x105 Pa]	ASTM D3575	1,4-1,9
Elastic modulus [x106 Pa]	ASTM D3575	1,4-1,7
Density [kg/m ³]	AVANS*	115,5
Thermal conductivity [W/m*K]	ASTM C155	0,05760
Water absorption [Class Vapor Retarder]	ASTM E96	Class 1
Water vapor transmission rate [metric perm]	ASTM E96	0,013 – 0,02
Fire resistance [Class]	ASTM E84	Class A
Flame spread [-]	ASTM E84	20
Smoke developed [-]	ASTM E84	50
Aldehyde & VOC emissions [ppm]	ASTM E1333	<0,01-0,03
Peak deceleration [g]	75cm drop-5cm cushion 6,8kPa, avg of 2-4th drops	61

Mycelium products (aka Mushroom Packaging) is a biomaterial developed and patented by Ecovative Design, LLC. Cushioning, structural and thermal conductivity tests performed by Ecovative Design Labs. Testing for fire properties conducted by the Packaging Science Department at Rochester Institute of Technology.

* Density tests performed by AVANS University of Applied Sciences