



**COMPOSTA®**

**BLOCK**

# Technical Data Sheets

1. Environmental Footprint
2. Cushioning
3. Flame retardant properties
4. Mechanical
5. Chemical
6. Thermal Properties
7. Disposal

## 1. Environmental Footprint (Life Cycle Assessment)

- Cradle to Cradle certified - silver award
- EPEA material health award
- EPEA 100% Carbon Neutral Award

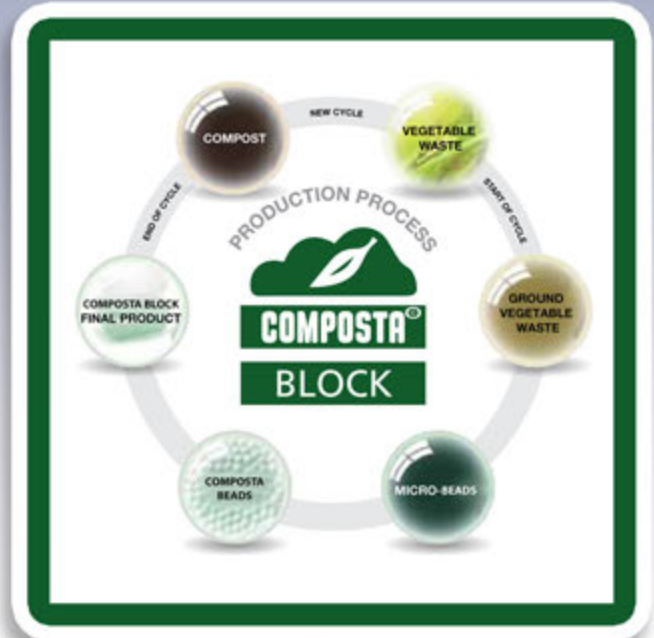
### Green house Gas Emissions profile

**Composta Block is made from annually renewing biomass feedstock such as corn starch and sugarcane**

### Fossil Resource EPS is made from

*fossil mass feedstock that take 1 million + years to renew.*

*Composta Block is a balanced Green House Gas Emission production process and certified Carbon Neutral material. It is made from annually renewing plant feedstock.*

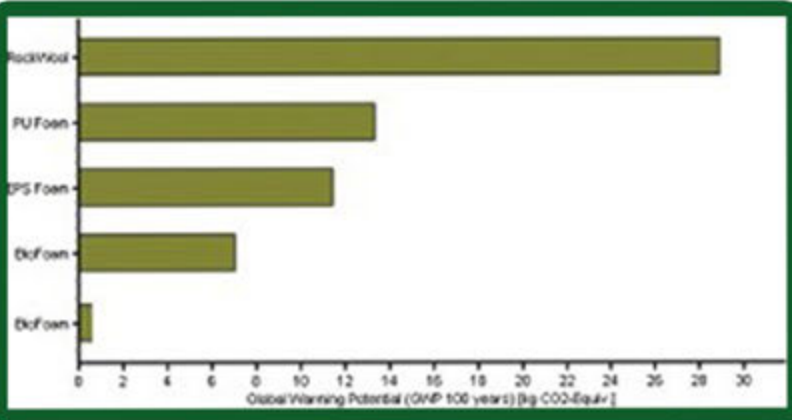


### Energy Consumption profile

*Composta Block has an energy footprint of between 50% and 75% of its equivalent fossil fuel EPS foam plastics.*

### Waste Footprint for Composta Block

*Composta Block and other Corn Starch based polymers have a significantly smaller impact on the environment during end of life waste disposal as can be clearly seen in the table below.*



Plastic type	Cradle to gate non-renewable energy use MJ/KG	Waste treatment for emission calculations	GHG emissions [kg CO2 eq/ functional unit]	Ozone precursors [g ethylene eq]	Acidification [g SO 2 eq]	Eutrophication [g PO 4 eq]
HDPE	80	Incineration	4.84	n/a	n/a	n/a
LDPE	91.7	80% Incineration 20% landfill	5.20	13.0	17.4	1.1
EPS	90	Recycle Incineration landfill	n/a n/a n/a	n/a	n/a	n/a
"Composta" Starch pellets	25	Incineration	1.14	n/a	n/a	n/a
"Composta" Starch pellets	25	100% composting	1.14	5.0	10.6	4.7

For further details, please call **01793 781 243**  
or email [sales@bioviron.com](mailto:sales@bioviron.com)





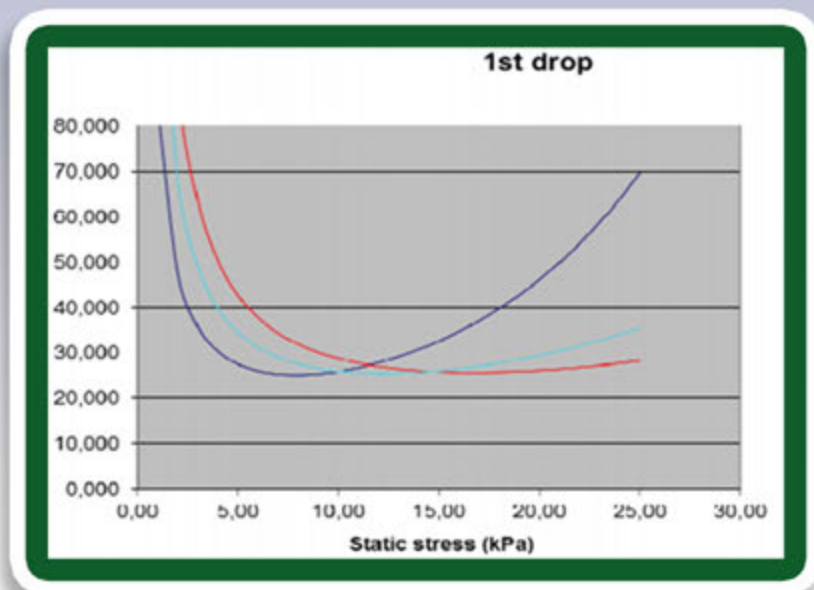
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## 2. Cushioning

**Dynamic Shock Cushioning Characteristics of Packaging Materials mentioned in ASTM norm 1596. Sample 60x60x2.5 height 76 cm, 10kg Drop, First drop 25G.**

**Composta Block demonstrates equivalent levels of shock cushioning to EPS equivalent packaging.**



## 3. Flame Retardant properties

**EN 11925- 2:2002**

**Meets Euroclass E for 30-40kg/m<sup>3</sup>  
Test report R0529 Effects (TNO)  
dd 22-4-2010**

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## 4. Mechanical

**Composta Block** has been specially developed to serve as a feedstock for shape molding of packaging materials to replace EPS in the packaging sector and so reduce the carbon footprint of packaging. Minimal Achievable density 30 kg/m<sup>3</sup>, in one pass, typical range 25-50kg/m<sup>3</sup>.

Property	Composta Block Moulded		Composta Block Board	
	Kg/m <sup>3</sup>	value	Kg/m <sup>3</sup>	value
Bending strength (kPa)	35	300	35	170
Tensile strength (kPa)	40	200	40	160
Compressive modulus (mPa)	40	4	n/a	n/a
Shear strength (kPa)	35	140	n/a	n/a
Shear modulus (mPa)	35	3.1	n/a	n/a
C-value for cushioning	35	2.6	35	2.6
Halogen's present		no		no
Fire: Euroclass E		pass		pass



## 5. Chemical

### ROHS listing

All ingredients in Composta Block comply with European Directive EC1994/45/EC with regard to absence of heavy metals and mutagenic and carcinogenic substances, and therefore also complies with European Directives 2002/95/EC and 2000/53/EC

### Termite test

All Termites died after a formal 6 weeks test, there are minor traces of attack but all termites died probably due to lack of nutrients. Conclusion was that Composta Block is not sensitive to attack by termites conform the standard EN 117/118.

### Chemical resistance against solvents

Composta Block is hardly attacked by styrene solvent present in curing formulations and has been used successfully as a sustainable filler. It thus enabled a contribution to a reduction of styrene emission during the subsequent curing process and assists in mitigating styrene emission.

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## Industrial Composting

### 6. Thermal Property

**Composta Block** has a thermal insulation property similar to that of EPS. At a foam block density of 35 kg/m<sup>3</sup> it achieves 0.034 W/mK



### 7. Disposal

#### RECYCLING

**Composta Block** is suitable for recycling using modern methods of grinding, cleaning and re-granulation.

#### COMPOSTING

**Composta Block** disintegrates only during Industrial composting at elevated temperature (60 degrees centigrade +) under the influence of moisture, bacteria and constant agitation.

At room temperature it does not disintegrate.

**Composta Block is not suitable for home composting**

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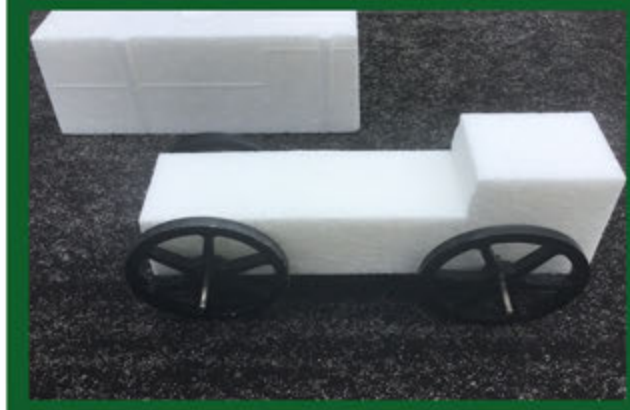




**COMPOSTA®**

**BLOCK**

**Reusable, Recyclable, Compostable**  
**100% Carbon Neutral**  
**Termite Proof & Toxins free**  
**High Resistance to Thermal Fluctuation**  
**Multiple Impact Protection**  
**Lightweight, High Density, Compression**  
 **moldable, cuttable.**



### **A future free from plastic.....**

#### **Composta Block is**

- expanded Poly-Lactid Acid (PLA) polymer, which is derived from renewable sources such as starch or sugar.
- 100% biocompostable
- multi-impact resistant
- Thermally efficient
- Carbon Neutral

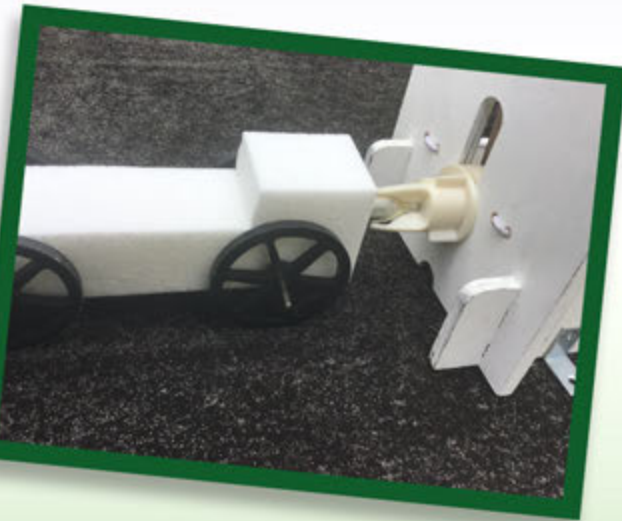
#### **Composta Block Original Formula is a**

- bead and resin compression molded high density foam product
- material that can be designed to protect any product

#### **Composta Block Meets Standards for**

**industrial composting and recycling** so the material will withstand exposure to normal atmospheric conditions, but when placed in an industrial composting unit at 60 degrees centigrade will bio-degrade into a compost over a 90 day period.

**Composta Block is officially a carbon neutral product** as tested by Akzo Nobel sustainable systems in 2015 and peer reviewed.



### **Planet Friendly Disposal**

Industrial Composting - 12 weeks to breakdown and fertilize your plants.

#### **Domestic disposal**

In a home Hot Bin composting unit.  
Recycle in the normal manner

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**BioViron™**