



Composta Block

Listing of properties version 9.1

Typical Properties:

PHYSICAL PROPERTIES	TEST METHOD	UNITS	SPECIFICATION	
Colour and Form of feedstock			Off -White beads	
Bulk Density (in octabin)	ISO 1183	g/cm ³	0,80	
VOC Content		%	0%	
Moisture content		%	<2%	
Flame retardant properties	EN 11925-2:2002		Meets Euro class E for 30-40kg/m ³ Test report R0529 Effects (TNO) dd 22-4-2010	
Thermal insulation properties Comparison EPS & Composta Block	ISO 2796-1980	°C	Thermal Insulation W/mK*	Type
			0,034 at 17 gr/l	Composta Block-HR Composta Block EPS
			0,034 at 35 kg/m ³ 0,033 at 30kg/m ³	
Flame retardant properties	BS-5852		Meets Class crib 5 suitable as filling in bags for public areas Crib 5, comparable to the energy of a compressed burning paper	

Mechanical properties:

property	Composta Block molded		Composta Block C-continuously formed drainage board		Composta Block HR loose bead cavity wall with glue	
	Kg/m ³ value		Kg/m ³ value		Kg/m ³ value	
white/green mW/mk	31	34	35	37,5	13	38
grey mW/mk		na	35	na	17	32
bending strength, kPa	35	300	40	170		na na
tensile strength, kPa	40	200		160		na na
compressive modulus MPa	40	4		na na		na na
shear strength kPa	35	140		2,6		pass
shear modulus, Mpa	35	3,1	35	no		
C-value for cushioning	35	2,6		pass		
halogens present		no				
Fire: Euro class E		pass				

na = not applicable

HR means High R value and is common abbreviation for grey insulating foam with an improved low thermal conductivity.

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Granulometry control

Representative samples are taken from every octabin. One in five bins is controlled for conformity to the granulometry spec by sieving. If a deviation would be found the bin in question is disqualified and all sequential bins and previous bins are and quarantined and measured.

Beads size of unexpanded raw material can be either 0,7-1,0 (BF710) and 1,0-1,6 mm (BF1016).

Propertjes

Composta Block has been specially developed to serve as a feedstock for shape moldings. Minimal Achievable density 30 kg/m³, in one pass, typical range 25-50kg/m³ : loose beads are used in densities between 13 -19 kg/m³

Cradle to Cradle certification

Composta Block was recertified July 2015 by EPEA to meet the stringent C2C requirements

In addition, a material health certificate was given by EPEA and

100% carbon Neutral

As off July^{1st} 2015 Composta Block was declared by EPEA to be 100% Carbon neutral.

Termite proof



Photo of termites.

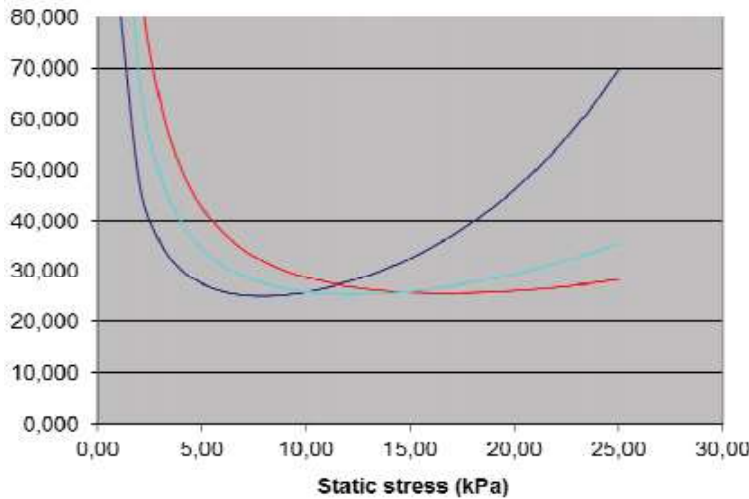
Termite test All Termites died after a formal 6 weeks test, there are minor traces of attack but all termites died probably due to lack of nutrients. Conclusion was that Composta Block is not sensitive to attack by termites conform the standard EN 117/118

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Cushioning

Dynamic Shock Cushioning Characteristics of Packaging Materials mentioned in ASTM norm 1596.
Sample 60x60x2,5 height 76 cm, 10kg Drop, First drop 25G
More drop testing graphs are available on request.

1st drop

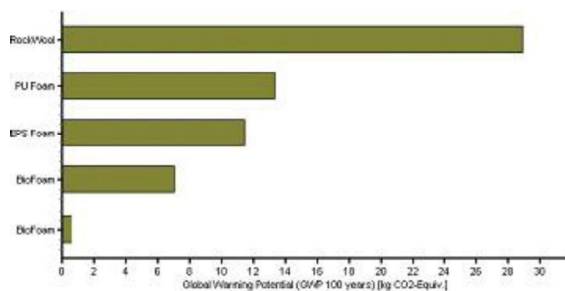


ROHS listing

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

CO2 footprint

Composta Block has a very low CO2 footprint compared to other materials and is even better than the already very good insulant EPS. The emissions of CO2 to produce a functional unit for a flat roof which is walkable and has an Rc of 3,5 are shown below. A formal LCA has been completed by Akzo Nobel sustainable systems and was peer reviewed. Composta Block molded in 2015 is officially carbon neutral.



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Composting

Composta Block at 35 g/l does **not** disintegrate after 26 weeks of composting at room temperature at 20oC. Composta Block is therefore not home compostable as proven by tests carried out by Organic waste Systems (OWS) Gent finished March 2010. Test was terminated according to the norm without visible alteration.



At room temperature (no degradation) at 70oC

Composta Block disintegrates **only** during **Industrial composting** at elevated temperature under the influence of moisture, bacteria and constant agitation. At room temperature it does not disintegrate

An industrial composting trail with plant roots intergrown in Composta Block-C was carried out by Attero in Venlo, the Netherlands



*FBR Report 1561
- Final - April
2015 -
Composting
trial.pdf*



All tested Composta Block materials were completely disintegrated after a second industrial composting cycle. As source separated municipal solid biowaste ('GFT') generally takes several composting cycles to disintegrate sufficiently to pass the 15 mm sieve, it is concluded that Composta Block disintegrates at least as fast.



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