

## Specifying for the future

ASBP, 15th September 2022

Phanos Hadjikyriakou

**Product X**

Company Y

Compare

0.7 kg CO2e
1.2 liters water
100% recycl. cont.
00 km (d)

DESIGNER / FIND PRODUCTS / FRAME

2 0 5 0

MATERIAL

- Concrete (32)
- Timber (14)
- Steel (44)

BUILDING TYPE +

APPLICATION +

COLOR +

FIRE PERFORMANCE +

**Earth finish**

CARBON	B+
WATER	C-
CIRCULARITY	B
COST	EEE

Compare

**Net-Zero Steel**

CARBON	C-
WATER	B-
CIRCULARITY	A+
COST	EE

Compare

**Wood Wool**

CARBON	B+
WATER	C-
CIRCULARITY	B
COST	EE

Compare

**Leather**

CARBON	D+
WATER	A-
CIRCULARITY	A+
COST	EEE

Compare

**What are the uses of ferrock, timbcrete, and hempcrete in interior design?**

[Answer](#) [Follow · 1](#) [Request](#)

[i](#) [c](#) [d](#) [s](#) [...](#)

**What are the most sustainable building materials?**

[Answer](#) [Follow · 12](#) [Request](#)

[i](#) [c](#) [d](#) [s](#) [...](#)



**What is sustainable concrete?**

[Answer](#) [Follow · 1](#) [Request](#)

[i](#) [c](#) [d](#) [s](#) [...](#)

Here's one for y'all: any thoughts on a less crude-oily version of this? Or approach to insulating external pipework generally?

8:40 am

**Is bamboo a sustainable building material?**

[Answer](#) [Follow · 1](#) [Request](#)

[i](#) [c](#) [d](#) [s](#) [...](#)

**What are the types of sustainable bricks?**

[Answer](#) [Follow · 11](#) [Request](#)

**What is the most sustainable house insulation suitable for a cold climate?**

[Answer](#) [Follow · 1](#) [Request](#)

[i](#) [c](#) [d](#) [s](#) [...](#)

**What are the benefits of sustainable building materials?**

[Answer](#) [Follow · 1](#) [Request](#)

[i](#) [c](#) [d](#) [s](#) [...](#)

**What type of sustainable floor covering would you have in a home, and how do you take care of it?**

[Request](#)



[i](#) [c](#) [d](#) [s](#) [...](#)





**Is it more important to use renewable resources or recycled content?**

[Answer](#) [Follow · 1](#) [Request](#)

[i](#) [c](#) [d](#) [s](#) [...](#)

**What are the uses of ferrock, timbcrete, and hempcrete in interior design?**

 Answer  Follow · 1  Request

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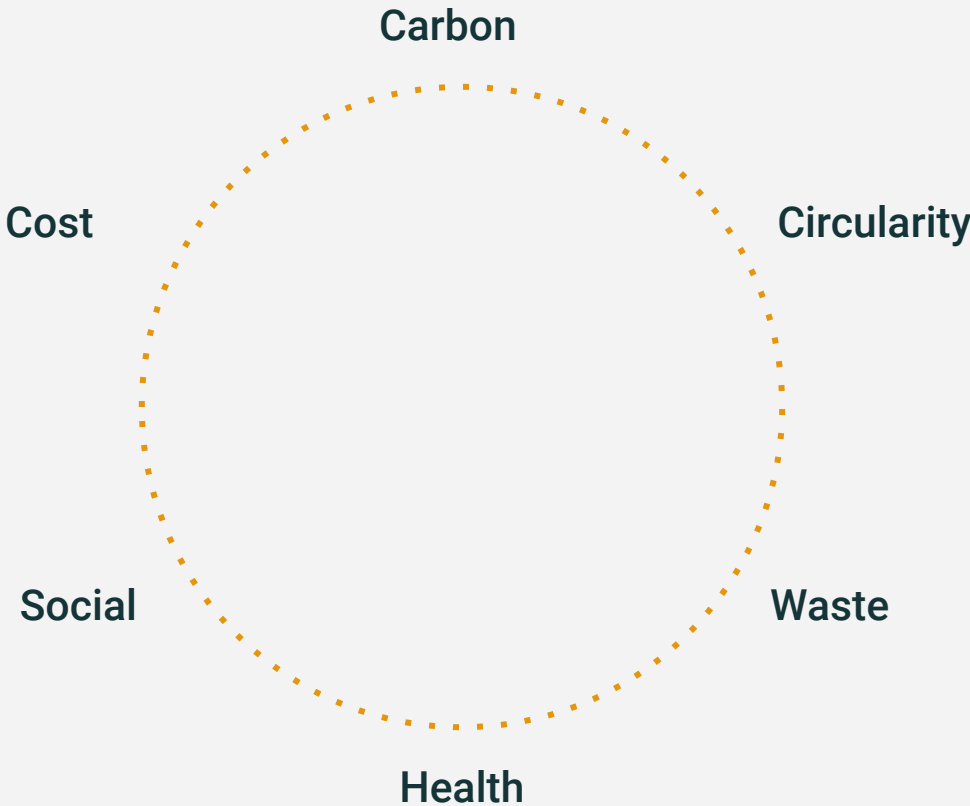
**Is it more important to use renewable resources or recycled content?**

 Answer  Follow · 1  Request

# Sustainability is multidimensional

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## ...and takes work!

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1

environmental certifications for XXX



XXX website



# ...and takes work!

1

environmental certifications for XXX

2



XXX website

Leave us a message

Full Name

Email

Message

Country

I need a price or quotation

Accept terms and conditions\*

Send

# ...and takes work!

1 environmental certifications for XXX

XXX website



3

Product	Material	Weight	CO2e	CO2e/kg	CO2e/m3	CO2e/m2	CO2e/ton	CO2e/ha	CO2e/ha/yr	CO2e/ha/decade	CO2e/ha/century
Concrete	Concrete	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Steel	Steel	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Wood	Wood	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Brick	Brick	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Insulation	Insulation	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Roofing	Roofing	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Windows	Windows	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Doors	Doors	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Paint	Paint	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Glazing	Glazing	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lighting	Lighting	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Plumbing	Plumbing	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Electrical	Electrical	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
MEP	MEP	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Interior	Interior	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Exterior	Exterior	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Roofing	Roofing	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Windows	Windows	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
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Electrical	Electrical	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
MEP	MEP	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Interior	Interior	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Exterior	Exterior	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

4 Carbon      Circularity      Waste      Health      Social      Cost

# 2050 Materials centralises data around the sustainability of construction products

The screenshot displays the 2050 Materials website interface. At the top, there's a search bar with 'Masonry' entered. Below the search bar, navigation tabs include 'Materials', 'Products', 'Brands', and 'Certifications'. A sidebar on the left contains 'Filters' for Product Type, Material, Application, Company, Building Type, Fire Performance, Manufacturing Country, and Product Certificates. The main content area shows 'Search / Product Types / Masonry: 81 products'. A 'Sort by' dropdown is set to 'Highest recycled content'. The product grid includes:

- Sand-lime brick**: Bundverband der Gipindustrie (Industry association), 0.14 kg CO<sub>2</sub>e/kg, 0.1 L water/kg, 100 % Rec. cont., Germany.
- Generic Autoclaved Aerated Concrete Block**: British Precast Ltd. (Industry association), 188 kg CO<sub>2</sub>e/m<sup>3</sup>, 528 L water/m<sup>3</sup>, 65.8 % Rec. cont., UK.
- UK Manufactured Precast Concrete Blocks**: British Precast Ltd. (Industry association), 0.53 kg CO<sub>2</sub>e/m<sup>2</sup>, 26.8 L water/m<sup>2</sup>, 27.4 % Rec. cont., United Kingdom.
- Yellow and sand coloured bricks - Helligse Teglværk - Bionaturgas-baserede**: Eggesund, 0.02 kg CO<sub>2</sub>e/kg, 1.8 L water/kg, 6.5 % Rec. cont.
- Yellow and sand coloured bricks - Helligse Teglværk - Naturgas-baserede**: Eggesund, 0.02 kg CO<sub>2</sub>e/kg, 0.5 L water/kg, 6.5 % Rec. cont.
- Rose and gray / brown bricks - Helligse Teglværk - Bionaturgas-baserede**: Eggesund, 0.02 kg CO<sub>2</sub>e/kg, 2.1 L water/kg, 8.4 % Rec. cont.

An inset window shows a detailed view of a red brick with iron oxide, featuring a 'See specs' button and the following data:

- Red brick with iron oxide - Gandrup** (Bionaturgas-based)
- 0.1 kg CO<sub>2</sub>e/kg
- 1.8 L water/kg
- 0 % Rec. cont.
- Denmark



...and provides simple product pages with transparent metrics to answer these questions

**RMG600 Access Floor system**

Kingspan Data and Flooring

Manufactured in Hull, UK

**Materials Facts**

Declared unit 1 x RMG600 Access Floor Panel (600mm x 600mm)

**Materials**

Chipboard	73%
Steel, Zn-coated	23%

**Carbon**

Manufacturing (A1-A3)	8.33 kg CO <sub>2</sub> e
End of Life (C1-C4)	12.7 kg CO <sub>2</sub> e
Biogenic carbon (A1-A3)	-8.25 kg CO <sub>2</sub> e

**Circularity**

Recycled Content	80%
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++ Free Kingspan Take-Back Service

**Water**

Freshwater use (A1-A3)	188 Liters
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**Health**

Total VOC	8.6 µg/m <sup>3</sup>
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Free from REACH restricted substances list

**Certifications**

- Cradle to Cradle Certified® & Material Health Bronze
- Health Product Declaration
- Indoor Air Comfort Gold
- Environmental Product Declaration (ISO 14025 and EN 15804)

Generated by 2050 Materials, June 2023

**RMG600 Access Floor system**

Company name Kingspan Data and Flooring

Address Kingspan Data and Flooring, Barro Street, Hull, UK

Telephone No. +44 (0)1482 761 761

Website <https://www.kingspan.com/uk/en/business-kingspan-in-research/kingspan-data-and-flooring/>

Contact

**Description**

The RMG600 panel is based on a 600mm-square module made of a high-performance high-density 30mm particle chipboard core in a galvanneal steel envelope. The galvanneal-steel shell comprises a top sheet that is wrapped around and laminated to the core, then mechanically-attached to the bottom steel sheet for greater strength and to provide full electrical continuity and static dispersion of the system where required. The RMG panel is engineered to fine dimensional tolerances for module control and independently-tested in accordance with the PSA MCB P12 P2/SP1 Specification to Medium Grade.

**Characteristics**

- Modular Access Floor (Chipboard)
- Floor Inlay
- Commercial

EN13501:1  
Bfl-s1  
/EN13502:2  
REI30r

Fire Performance

**Material Facts**

Data Source: EPD International (ISO 14025 and EN 15804)

**Declared unit 1 piece**

Biogenic CO <sub>2</sub> e	-8.25 kg
Total CO <sub>2</sub> e	8.33 kg
Manufacturing (A1-A3)	8.33 kg
Transport to Site (A4)	kg
On-site installation (A5)	kg
Use & Maintenance (B1-B5)	kg
End of Life (C1, C3, C4)	kg

**Circularity / Recyclability**

Recycled Content	80%
Recyclable Content	95%
Re-use Potential	0%
Energy Recovery Potential	0.08%
Water Use	188 l
Odour Degradation Potential	0.0000056 mg ClO <sub>2</sub> -Req

**Certifications and Datasheets**

- EPD
- hpd
- ISO 14025
- ISO 15804
- ISO 14001
- ISO 9001
- ISO 14001

**Transparency Questionnaire**

✓

# Finding out the “most sustainable” brick becomes a 5 minute job

The laptop screen displays the 'Finder' application with the following data:

Product	WasteBasedBrick® (Caramel)	Red or brown LESS bricks	Sand-lime brick	Yellow bricks	Pillar block 23.5x23.5x20
Company	StoneCycling B.V.	Eggesund Wienerberger A/S	Bundesverband der Gipsindustrie (Industry association)	Randers Tegl A/S	Aalvold Betong AS
Manufacturing Location	Amsterdam, Netherlands	Denmark	Germany	Denmark	Skien, Norway
Product Type	Masonry	Masonry	Masonry	Masonry	Masonry
Material Type	Brick	Clay	Brick	Clay	Concrete
	0.2 kg CO <sub>2</sub> e/kg	0.1 kg CO <sub>2</sub> e/kg	0.1 kg CO <sub>2</sub> e/kg	0.1 kg CO <sub>2</sub> e/kg	0.1 kg CO <sub>2</sub> e/kg
	l/kg	12 l/kg	0.3 l/kg	14 l/kg	14 l/kg
	-	0.1 %	100 %	3.8 %	3.8 %
					<a href="#">export</a>

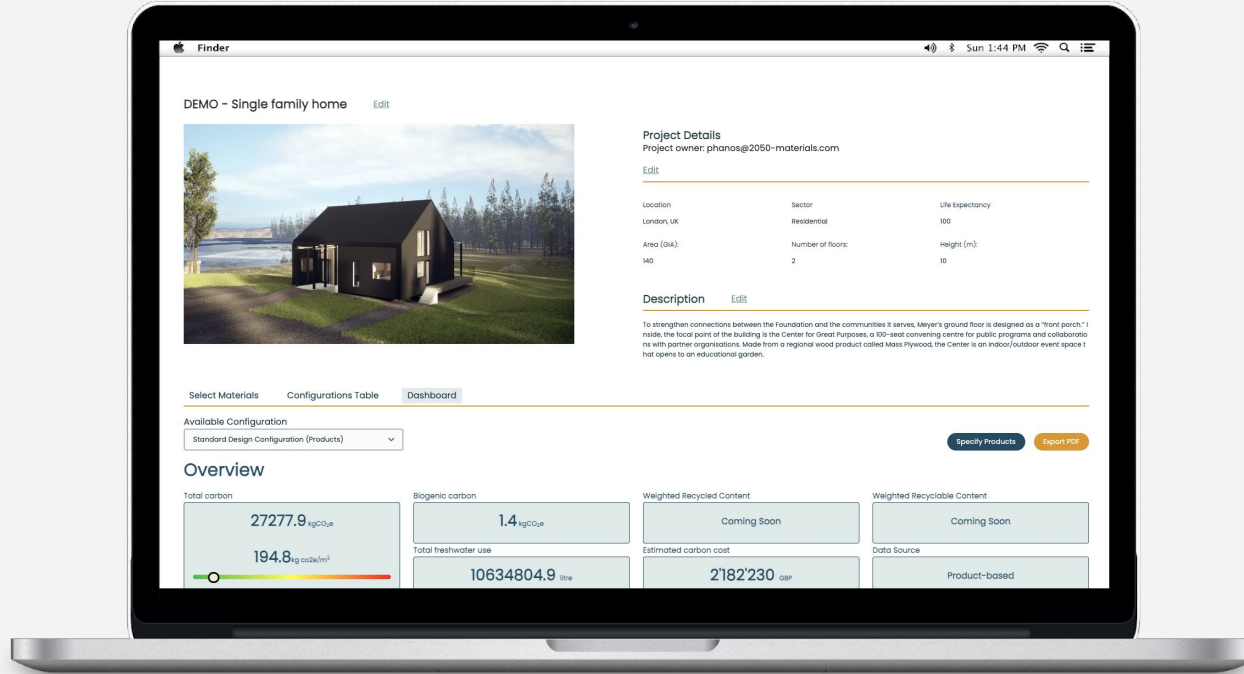
**WasteBasedBrick® (Salami)** (highlighted with a green checkmark)

**See specs**

**WasteBasedBrick® (Salami)** ⓘ

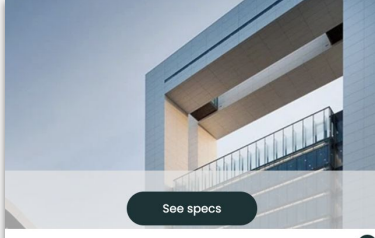
StoneCycling	0.2 kg CO <sub>2</sub> e/kg
B.V.	-
	-
	Amsterdam, Netherlands

# In Beta - Project specific tools



# For manufacturers - Come see how to extract real value from your EPDs & Certifications






See specs

**Pictura, Natura Pro**

Equitone

16.3 kgCO <sub>2</sub> e/m <sup>2</sup>
614.7 L water/m <sup>2</sup>
0 % Rec. cont.


Neubeckum, Beckum,  
Germany



**Silicate board**

19.79 kgCO <sub>2</sub> e/m <sup>2</sup>
137.2 L water/m <sup>2</sup>
0 % Rec. cont.

United Kingdom



**Board**

20.7 kgCO <sub>2</sub> e/m <sup>2</sup>
84.9 L water/m <sup>2</sup>
13.1 % Rec. cont.


Belgium



**Board**

19.79 kgCO <sub>2</sub> e/m <sup>2</sup>
137.2 L water/m <sup>2</sup>
0 % Rec. cont.

United Kingdom

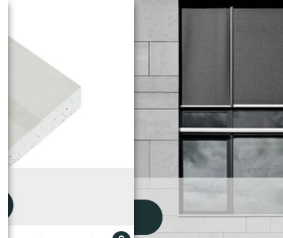


**Weather Defence™ Sheathing board**

Siniat

2.72 kgCO <sub>2</sub> e/m <sup>2</sup>
44.8 L water/m <sup>2</sup>
-


Bristol, UK



**breboard**

3 kgCO <sub>2</sub> e/m <sup>2</sup>
13.1 L water/m <sup>2</sup>
38 % Rec. cont.

Bristol, UK



**Board**

8.06 kgCO <sub>2</sub> e/m <sup>2</sup>
106 L water/m <sup>2</sup>
0 % Rec. cont.

Belgium



**Board**

19.79 kgCO <sub>2</sub> e/m <sup>2</sup>
137.2 L water/m <sup>2</sup>
0 % Rec. cont.

United Kingdom

## ...and join others paving the way to a transparent, sustainable future

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"We are one of the first manufacturing companies to support the 2050 Materials platform and their vision, which is very much aligned with our own. Their concept of structuring, simplifying and standardising sustainability data for non-expert specifiers has allowed us to expand the knowledge around our products to a wider audience striving for positive impact in the construction sector. We look forward to joining forces for years to come."



Clayworks

"Graphenstone Paints are delighted to be involved and listed with 2050 Materials. We believe their disciplined, thorough and holistic approach to the products listed, is key to providing relevant, accessible and accurate data for all Specifiers using the platform. It's never been more important to participate in services like 2050 Materials, at this time of urgent ecological need. This is especially valid for the Built Environment, which is so materials hungry and often both toxic and wasteful. Keep up the great work all at 2050 Materials!"



Graphenstone Paints

"Being present on 2050 Materials is one way for us to show our products to key specifiers and be completely transparent with them by sharing our technical and environmental data of our ranges and as a company, 2050 Materials democratizes the access to sustainable specifications materials and we, at Dickson, wanted to be part of this great opportunity to help architects and designers for their designs and specifications to be in line with the climate emergency."

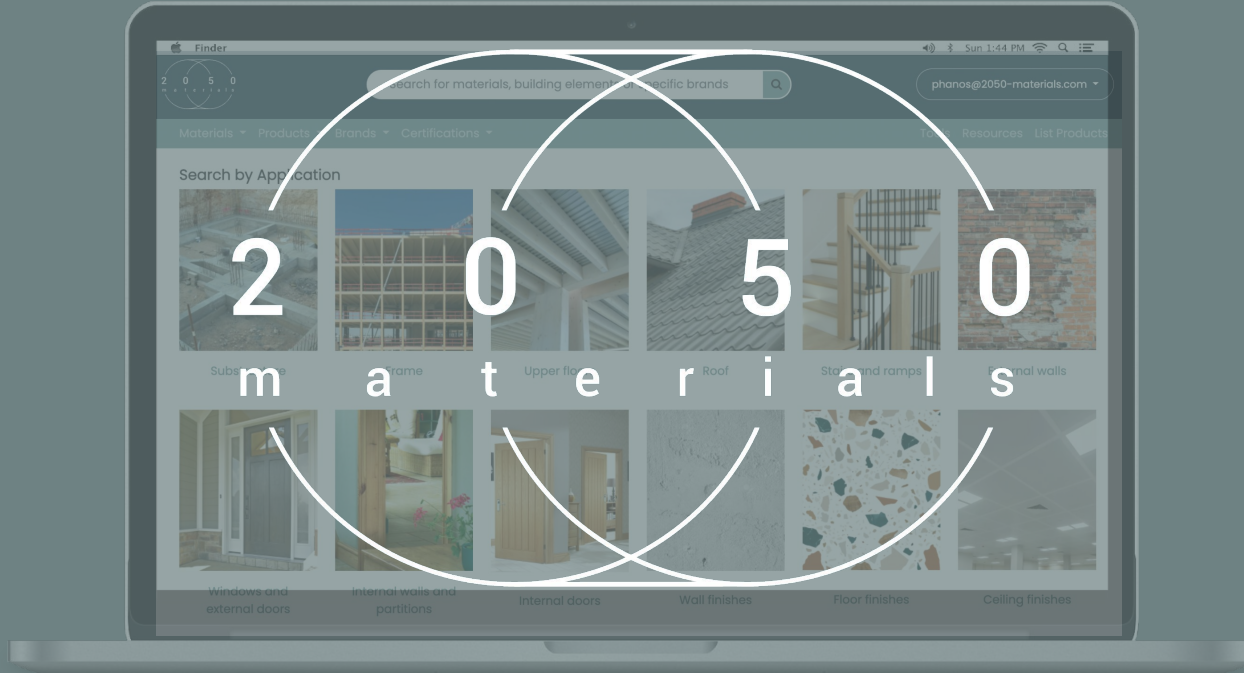


Dickson Constant

"Muratto is delighted to have been a part of this project from the start, because 2050 Materials shares Muratto's aim of working for a more sustainable future. Furthermore, it has provided a significant boost to our brand."



**Muratto**



Join free at [app.2050-materials.com](https://app.2050-materials.com)