



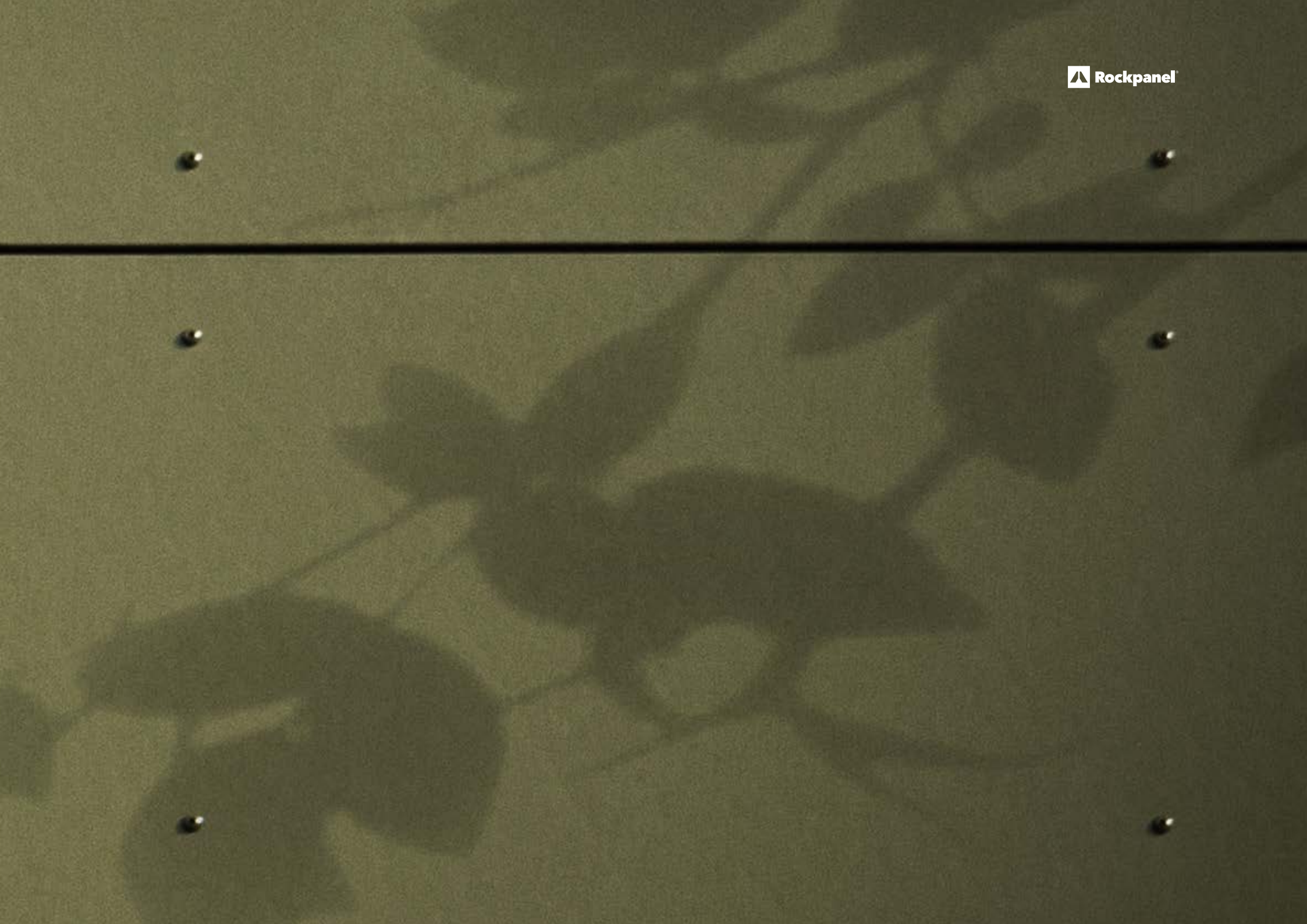
DEDICATED TO SUSTAINABILITY



MADE
FROM STONE.™

CONTENT

More than a beautiful facade	4
Made from stone	6
Nature is circular	10
A durable façade	16
Humidity resistance	18
Fire-resilient buildings are more sustainable	19
Safer materials with Rockpanel	20
Cradle to Cradle certified®	22
Environmental Product Declaration (EPD)	25



SUSTAINABILITY IS MORE THAN A BEAUTIFUL FACADE.

On one hand, it is frighteningly simple:
We must start building in a more sustainable way.
On the other hand, the complexity of the issue
is just as frightening. How do we do it? Who – and
what – can we trust when the big greenwashing
machine starts spinning our industry?

To us at Rockpanel, the best answer is accountability and transparency.
As part of the ROCKWOOL Group's yearly sustainability report, we are
constantly accounting for our impact on Earth. In addition, in our externally
validated EPD, we declare the environmental impact of all our products in
each stage of the product life cycle.

Rockpanel is fully transparent and accountable – all the way from production
to building and recycling.



98% of the Rockpanel portfolio is Cradle to Cradle
certified level silver in accordance with the rigid
product standard version 4.0 which is the most
ambitious and actionable global standard yet for
developing products that are safe, circular and
responsibly made.

The ROCKWOOL Group has prioritized ten of the 17 SUSTAINABILITY DEVELOPMENT GOALS defined by the United Nations.

Every year ROCKWOOL Group measures and reports progress against these goals and communicates the results in the annual ROCKWOOL Sustainability report. Below some examples of how Rockpanel is impacted by these goals:

6 CLEAN WATER AND SANITATION 	7 AFFORDABLE AND CLEAN ENERGY 	8 DECENT WORK AND ECONOMIC GROWTH 	12 RESPONSIBLE CONSUMPTION AND PRODUCTION 	13 CLIMATE ACTION 
CLEAN WATER AND SANITATION Improving water efficiency in our factories.	AFFORDABLE AND CLEAN ENERGY Improving energy efficiency in our own (non-renovated) office buildings.	DECENT WORK AND ECONOMIC GROWTH ROCKWOOL group focuses on safety and the work environment in our production facilities.	RESPONSIBLE CONSUMPTION AND PRODUCTION The ROCKWOOL group is reducing the amount of waste to landfill.	CLIMATE ACTION Paramount for ROCKWOOL Group is to reduce CO ₂ emissions from our factories.
Goal To reduce water consumption by 20% by 2030.	Goal A 75% reduction by 2030.	Goal Zero fatalities and serious incidents.	Goals 85% less waste to landfill from production by 2030. To expand product recycling to 30 countries by 2030.	Goal To reduce CO ₂ emissions from our factories by 38% by 2034. For an energy-intensive production company, this is a very high target.

For the full picture, download the latest ROCKWOOL Annual report at www.rockwool.com/group.

MADE FROM STONE.

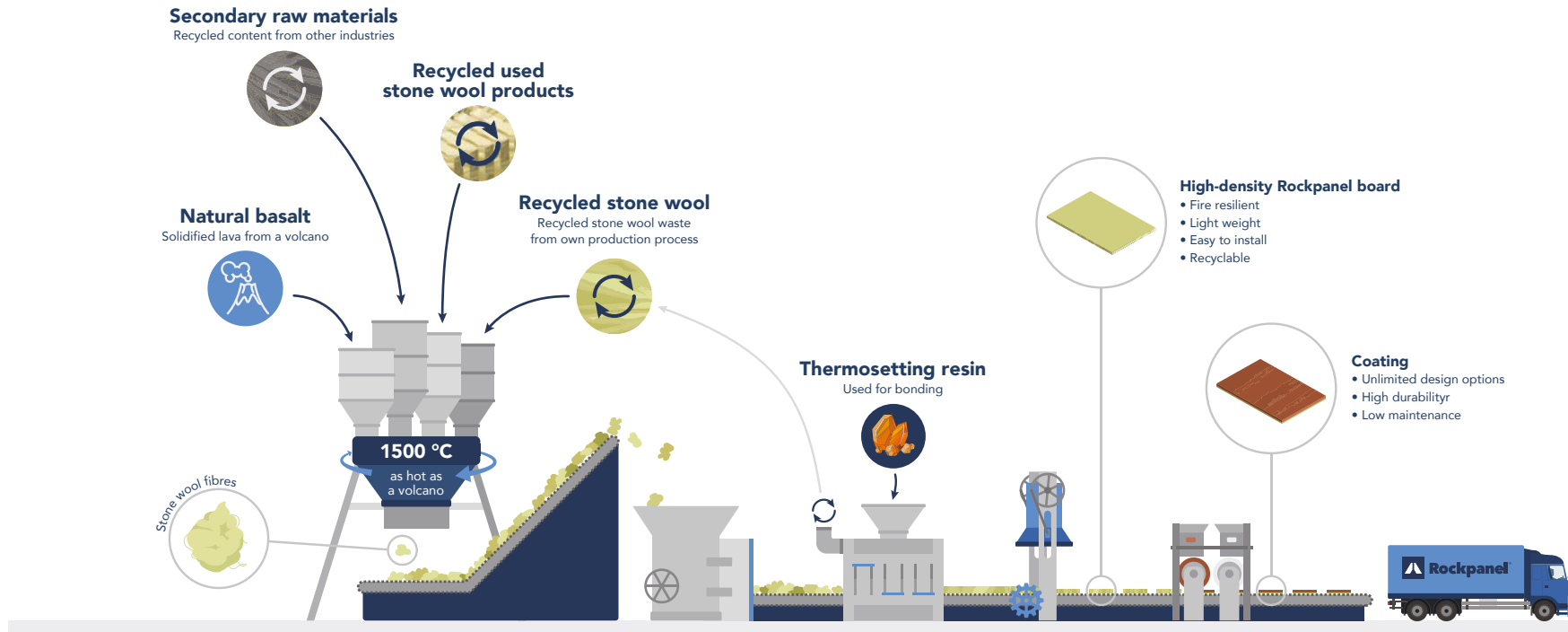
Rockpanel facade cladding is made from the volcanic rock basalt and up to 50% recycled materials. Stone is an abundant natural resource that can be used again and again. We also use materials from other industries that would otherwise end up as waste. The basalt stone is sourced close to our factory with a clear code of conduct for supply and mining.

Sustainability at the core

An important aspect of sustainability is how we deal with the valuable resources the Earth provides us. Basalt, the raw material we use to produce our facade boards, is quite abundant, as the Earth creates thousands of times more every year than we can use. The basalt that we use to produce Rockpanel is mined in Europe close to our production site, thus limiting our CO2 footprint. Our production is ISO 14001 certified and to ensure ethically and environmentally sound principles, all our suppliers must accept the ROCKWOOL Supplier Code of Conduct. It is, of course, a requirement that all necessary permissions are in place for the supplier to mine the basalt.







Step 1 Producing Stone wool

To create stone wool fibres, a combination of basalt, recycled stone wool, and secondary raw materials is heated to a temperature of about 1500 °C – as hot as a volcano. The production process for stone wool fibres is actually a technological replica of the inside of a volcano. A spinning machine whips the melted basalt and recycled materials into thin strands of stone wool. You could compare the process of making stone wool to how candy floss is made.

Step 2 Pressing the boards

On the press line, the stone wool is being pressed into high-density boards. For the binding of the stone wool fibres, a small amount of thermosetting resin is used. This creates a panel with low calorific content and a greater reaction to fire classification. Production waste is fully utilised in this process: every piece of stone wool and Rockpanel board that's cut off goes back into the recycling process to create new stone wool fibres. Thanks to the use of recycled materials, we can produce more than 400 m² Rockpanel boards from only 1 m³ of basalt.

Step 3 Coating the boards

The next step is to finish the boards with a coloured waterborne coating system with high durability. Afterwards, an extra protective layer, ProtectPlus, can be applied, creating a self-cleaning anti-graffiti surface with improved weathering and UV resistance for an even more durable result. During this stage, the paint lines are cleaned with water – the only time water is used at the Rockpanel production facility. The total amount of water used during this process is less than 3,000 m³ (in 2022 exact use was 2,942 m³). Afterwards, all water is sent to the recycling plant of ROCKWOOL, helping to reduce the amount of fresh water needed.



We also have a focus on lowering our footprint when it comes to transportation. Van der Wal, the company that handles almost all transportation of Rockpanel products, is among the front runners in the Lean & Green program, holding four stars. The program requires constant monitoring and improvement of the CO₂ emissions from the transportation vehicles.

...AND ALL OVER AGAIN

The beauty of this process is that it can be repeated again and again. After use, the boards can be recycled into new boards or other stone wool products without any loss of quality.

NATURE IS CIRCULAR. OUR INDUSTRY SHOULD BE THE SAME.

In a complete circular economy, material is only “borrowed” from nature. Material is recycled continuously, and resources are not depleted. That’s possible with basalt, the core material of Rockpanel facade cladding. Stone wool can be recycled again and again, without a loss of quality.

Creating a more resource-efficient, circular economy for the building materials sector is essential for achieving the climate-neutrality goal of the Paris Agreement.

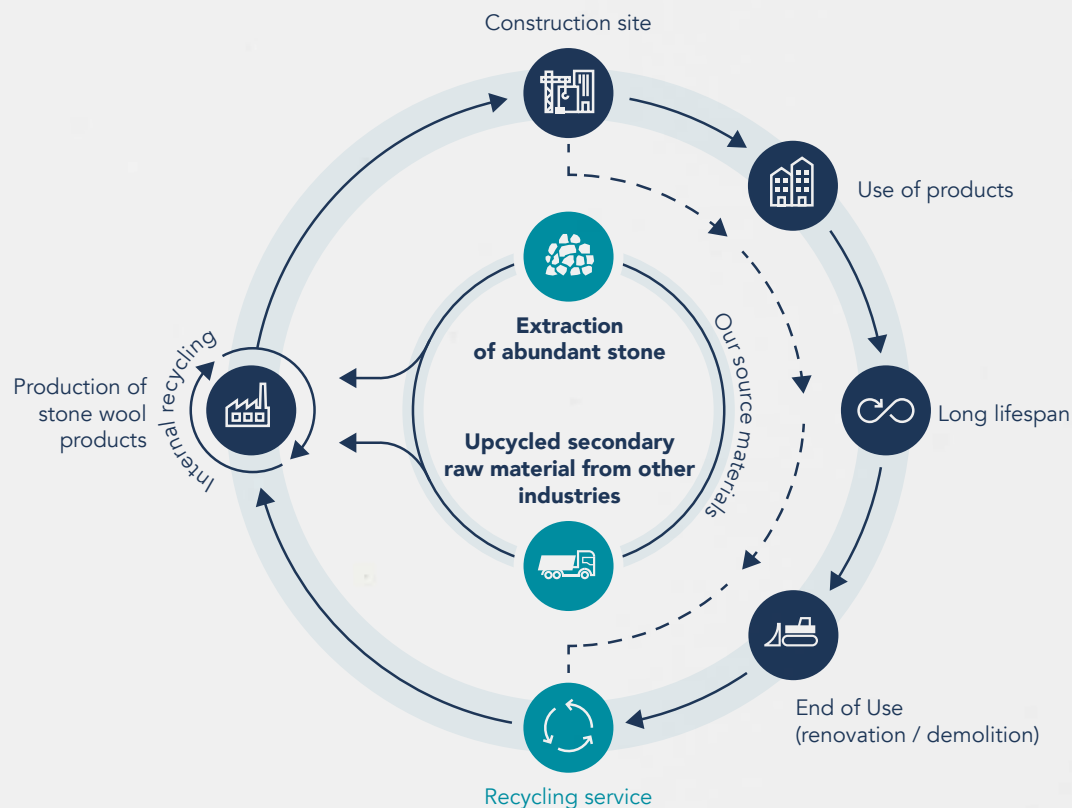


"We can produce more than 400 m² Rockpanel boards from only 1 m³ of basalt."

We make efficient use of waste to enhance the efficiency of natural resource utilisation during our production process. Any excess stone wool or Rockpanel board material that is cut off is reintegrated into the recycling system to generate new stone wool fibres in order to optimise the use of nature's raw materials.

RECYCLABLE WITHOUT A LOSS OF QUALITY.

Rockpanel facade cladding is recyclable. When a building is demolished or refurbished, our products are designed to easily dismantle and separate to produce new products. This is possible because stone wool won't lose its many natural strengths over the years. The recycled materials can re-enter the production process again and again to become part of new stone wool products, while we're still able to guarantee the same level of quality.



NO WASTE FROM PRODUCTION GOES TO LANDFILL.

Our production technology allows us to use certain waste from other industries. The construction sector produces a third of all waste, much of which ends up in a landfill today. The Rockpanel factory does not send any stone wool to landfill.

Upcycling secondary materials from other industries allows us to reduce the amount of waste going to landfill, as well as the use of virgin raw materials. Just as all surplus material goes back into production and water from our paint lines are re-used. When aiming for a fully circular economy, it all adds up.

DESIGNED FOR DISASSEMBLY.

Recycling in the most tangible way is building materials that are modular and easy to dismantle, making it possible to recycle them, rather than having to throw them away. For example, a ventilated facade with Rockpanel exterior cladding, an aluminum sub-construction, and ROCKWOOL insulation can be easily deconstructed and completely split into three clean and fully recyclable parts at the end of life of a building.

EVEN THE ELECTRICITY COMES FROM RENEWABLE ENERGY.

All electricity used in
the Rockpanel factory
comes from renewable
energy sources.



BEAUTIFUL – AND BUILT TO STAY THAT WAY.

The beauty of stone – the economy and flexibility of man-made materials. But beneath these rather obvious advantages, there are even more substantial inherent qualities in Rockpanel facade cladding.



Durability

An often-overlooked aspect of sustainability is durability. Rockpanel facade cladding is dimensionally extremely stable and will not be impacted by changes in temperature and humidity.



Colour fastness

High UV-resistance and a very high level of colour fastness is another part of the product's durability.



Fire resilience

Stone offers a natural inherent fire resilience without fire retardants.



Humidity resistance

Stone is not impacted by humidity, allowing us to produce without any need for mould treatment or other chemical impregnation.

HOW DURABLE AESTHETICS CONTRIBUTE TO SUSTAINABILITY.

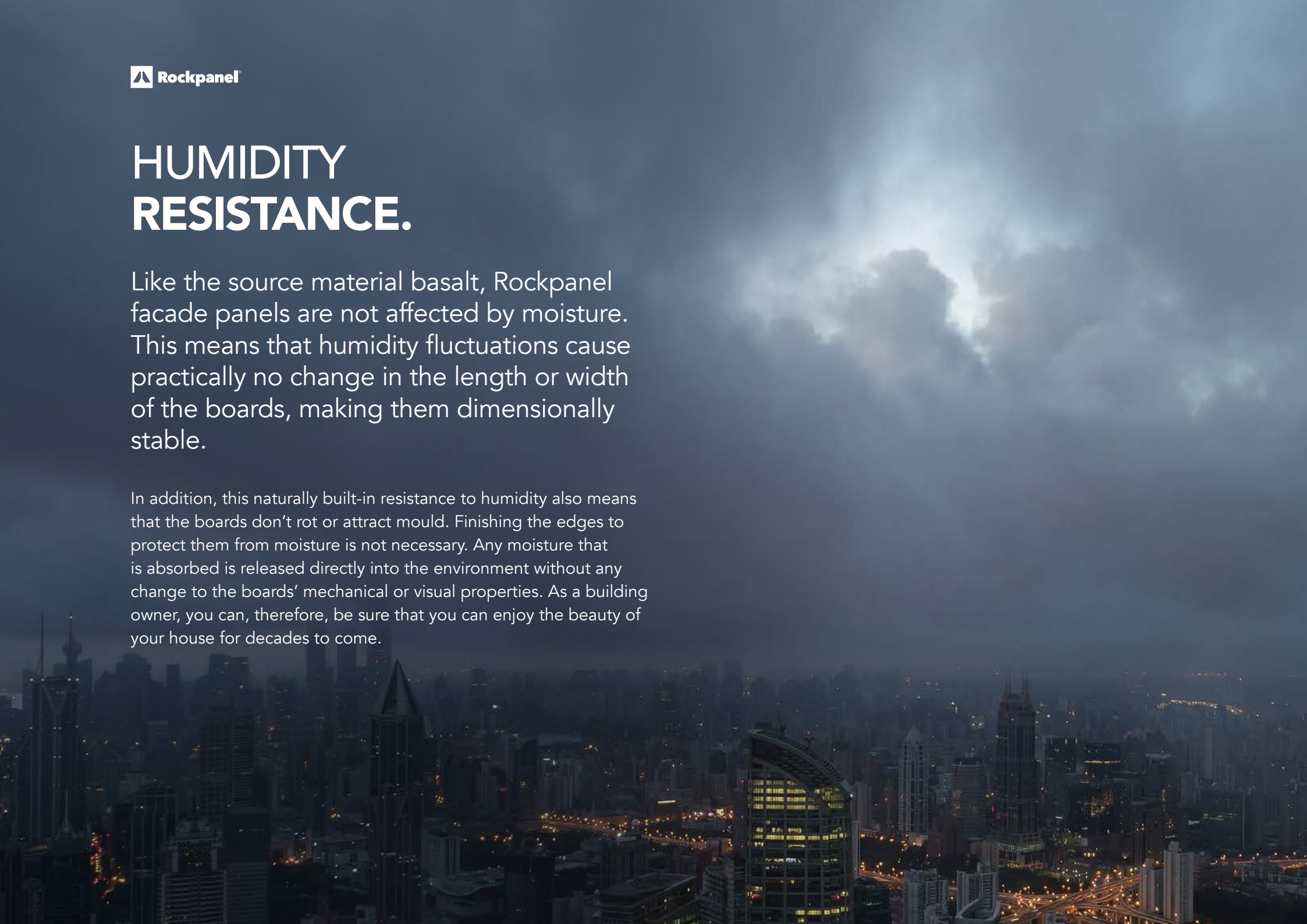
Loss of colour, dimensional instability, weathering, rot, and mould. The aesthetic and functional durability of facade cladding is crucial to its longevity. Rockpanel has an intended working life of 50 years as documented in our ETA.



HUMIDITY RESISTANCE.

Like the source material basalt, Rockpanel facade panels are not affected by moisture. This means that humidity fluctuations cause practically no change in the length or width of the boards, making them dimensionally stable.

In addition, this naturally built-in resistance to humidity also means that the boards don't rot or attract mould. Finishing the edges to protect them from moisture is not necessary. Any moisture that is absorbed is released directly into the environment without any change to the boards' mechanical or visual properties. As a building owner, you can, therefore, be sure that you can enjoy the beauty of your house for decades to come.



FIRE-RESILIENT BUILDINGS.

Stone doesn't burn. Of course, fire safety in buildings is primarily about protecting people. Still, building in a fire-resilient way also significantly contributes to a sustainable world.

A major aspect of sustainability is limiting the use of new valuable resources. In the building industry, this is not only a matter of recycling and upcycling as much as possible, but it's also about building for the long term, making it as futureproof as possible. For example, by looking at energy efficiency and fire resilience.

If a building is not fire-safe, there's a significant risk of it burning down completely during a fire. In that case, valuable resources are lost. That's why using non-combustible building materials is a more sustainable choice.

Rockpanel cladding can withstand extremely high temperatures as it has a very low calorific content. Calorific content is the amount of energy produced by the complete combustion of a material. This amount of energy determines how much a certain material contributes to a fire. And Rockpanel is naturally fire-resilient without adding any fire retardants. In many other facade materials, fire classification depends on the use of chemical fire retardants.

ENSURING SAFER MATERIALS.

Rockpanel boards are engineered to be the essence of safety and sustainability. Our commitment to material health is unwavering.

What sets our products apart is that they do not contain these additives:

No Biocides

Our boards are free from biocides, ensuring that they do not contain harmful substances that could compromise safety or the environment.

No Cadmium

No cadmium is added to the boards, promoting safer and more responsible construction practices.

No Fire Retardants

Rockpanel boards do not contain fire retardants, ensuring they meet safety standards without compromising material health.

No Fungus Treatment

We avoid the use of fungus treatment chemicals, contributing to a safer and more sustainable construction process.

Low Emission of Formaldehyde

Our cladding boards maintain low formaldehyde emissions, well within the requirements even for indoor use.



CONTRIBUTING TO CIRCULAR ECONOMY WITH **CRADLE TO CRADLE CERTIFIED® PRODUCTS.**

98% of the Rockpanel product portfolio is Cradle to Cradle certified® at silver level, verifying that the products are safe, more sustainable, and are supporting a circular product life cycle, contributing to a more sustainable future.

Cradle to Cradle Certified® is a globally recognised standard which credits solutions that support the circular economy and make a positive impact on both people and the planet. This certification further represents yet another initiative consolidating our position as a responsible manufacturer.

Being Cradle to Cradle Certified is also recognised by several major building rating schemes such as e.g. LEED, and DGNB. Therefore, when using a Cradle to Cradle Certified product, you can earn more points in these building rating schemes.



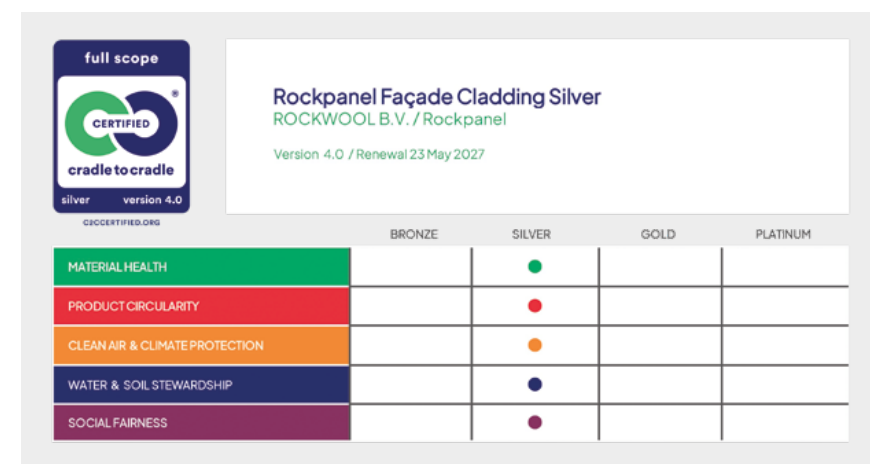
C2CCERTIFIED.ORG

WHAT IS CRADLE TO CRADLE CERTIFIED?

Cradle to Cradle Certified® is the world's most advanced, science-based standard for designing and making products today that enable a healthy, equitable, and sustainable tomorrow. It is a holistic standard that verifies a product's performance across five critical areas of sustainability including: Material Health, Product Circularity, Clean Air and Climate Protection, Water and Soil Stewardship, and Social Fairness.

When a product is Cradle to Cradle Certified® it is internationally recognised as a safer, more sustainable product that supports the circular economy.

To learn more about our detailed score for each category, please see below:



Certificate can be downloaded from www.rockpanel.co.uk



SUPPORTING CONCIOUS ARCHITECTURE. **ALL THE WAY.**

The sustainability expertise of Rockpanel is at the service of everyone wanting to create more sustainable architecture. We offer an extensive range of tools, certificates, and support for the whole building process.

Starting by offering EPDs for all our products can help obtain sustainability certification according to the most-used schemes.

Working with Rockpanel is more than working with the inherent natural qualities of stone. It is also working with all the documentary tools that provide ease of mind by ensuring sustainability.

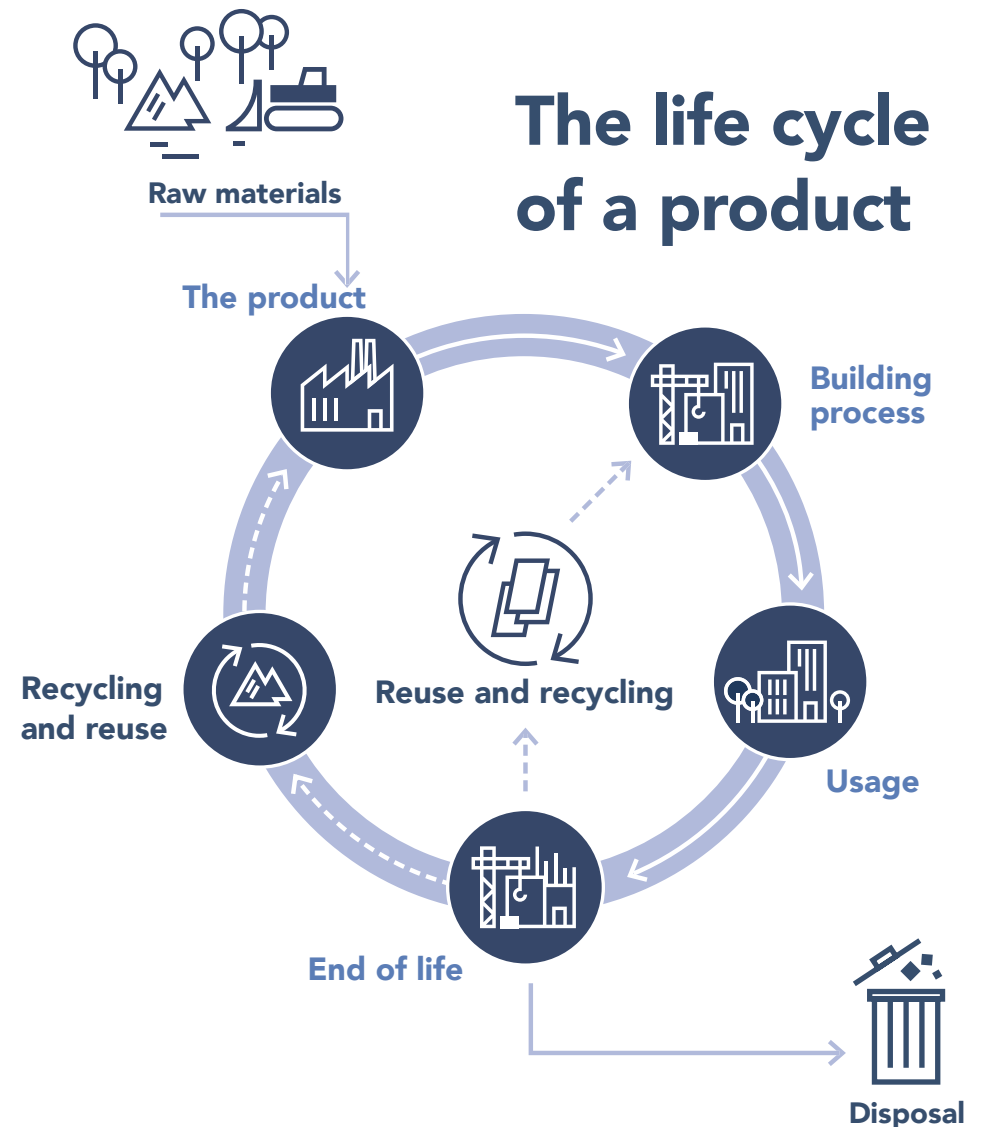


We offer EPDs (Environmental Product Declarations) for all our products, providing you with data and insights about the environmental impact of each stage of the product life cycle: from production, construction and end of life.

WHAT IS AN EPD?

EPD stands for Environmental Product Declaration. An EPD is a document where you can find information about the environmental impact of a specific building material. This information is presented in a standardized way, which makes it much easier to compare different building materials.

To assess how sustainable a given product is, it is important to look at all the different stages the product goes through in its life cycle. A product may be manufactured in a very sustainable way, but if it only lasts for a short period of time or if it is impossible to reuse or recycle afterwards, it is ultimately not very sustainable. Therefore, an EPD contains information about each of the product's life cycle phases: production, construction process, use phase and end-of-life phase, including the potential for reuse, recycling or recovery.



DECLARED VALUES IN OUR EPDS.

When comparing EPDs, it is important to ensure that they are made with the same scope (i.e. that values are declared for the same phases and a phase is not skipped). If the same scope is not declared, you risk “comparing apples to bananas”.

Also, it is important that the EPDs are issued by an independent and certified party – and that the EPDs are compliant with EN 15804 and ISO 14025.

Our EPDs are issued by Institut Bauen und Umwelt e.V. (IBU), www.ibu-epd.com.

Below, please find a brief summary of our GWP equivalent to kg. CO₂ pr. phase*. For all details, please refer to the full EPDs, that can be downloaded at www.rockpanel.co.uk

Kg CO ₂ eq/m ²	A1	A2	A3	A4	A5	B1	B2 ¹	B3 ²	B4 ²	B5 ²	B6 ¹	B7 ¹	C1	C2	C3	C4	D	GWP A1-A3 (kg CO ₂ eq.)	GWP A1-C4 (kg CO ₂ eq.)
Rockpanel A2 8 mm		11.80		0.334	1.220	0	–	–	–	–	–	–	0	0.0431	0	0.156	-0.634	11.80	13.55
Rockpanel A2 8 mm with Protect Plus		12.30		0.334	1.240	0	–	–	–	–	–	–	0	0.0432	0	0.148	-0.642	12.30	14.07
Rockpanel A2 9 mm		14.10		0.332	1.450	0	–	–	–	–	–	–	0	0.0501	0	0.352	-0.757	14.10	16.28
Rockpanel A2 9 mm with Protect Plus		14.60		0.336	1.480	0	–	–	–	–	–	–	0	0.0519	0	0.356	-0.765	14.60	16.82
Rockpanel A2 11 mm		17.60		0.334	1.800	0	–	–	–	–	–	–	0	0.0629	0	0.229	-0.929	17.60	20.03

¹ Values are not declared for phases B2, B6 and B7. Rockpanel boards do not require maintenance, water or energy use in the use phase.

² Phases B3, B4 and B5 are not relevant for Rockpanel as repair, replacement and refurbishment are normally not needed during the life of the Rockpanel board.

THE PRODUCT LIFE CYCLE STAGES ASSESSED IN AN EPD.

Product stage 			Construction process stage 		Use stage			
This stage shows the impacts of the raw material supply, transport to the production facilities and the manufacturing stage.			This stage shows the impact of transport from production facility to the site and construction on site.		This stage covers the environmental impact for period the product is in use.			
A1	A2	A3	A4	A5	B1	B2	B3	B4
Raw material supply	Transportation	Manufacturing	Transportation from gate to site	Assembly	Use	Maintenance	Repair	Replacement

Examples on how Rockpanels score is impacted:

<p>The product stage score is mainly impacted by e.g.:</p> <ul style="list-style-type: none"> • Energy that goes into the production of the boards. • Raw materials, e.g. stone, binder and recycled materials • Transport of materials. This is low since we only source in Europe close to our production. 			<p>The construction process is mainly impacted by e.g.:</p> <ul style="list-style-type: none"> • Transport from production to construction site. This is small as we produce and sell mostly in Europe. • Equipment needed to install the boards • Waste from installation • Disposal of packaging 		<p>The use phase is mainly impacted by e.g.:</p> <ul style="list-style-type: none"> • maintenance, repair, replacement or refurbishment. • Need for energy or water to operate the façade <p>Rockpanel score is very low in this stage as no energy and water is needed to operate the façade, and the façade does not need maintenance under normal use conditions.</p>			
---	--	--	--	--	--	--	--	--

In an EPD, the environmental impact is assessed across the entire product life cycle. Specifically, this assessment covers each of the following stages: production, construction, use, end of life and the potential for reuse, recovery or recycling. These five stages are referred to with letters A to D. The five stages are then divided into several sub factors.



Download our product specific EPDs at:
www.rockpanel.co.uk/epd

			End of life stage 				Reuse/Recycle 
			This stage includes the impact of de-construction or demolition, transport to waste processing and any recovery or disposal processes.				This stage provide information about the potential for reuse, recovery or recycling.
B5	B6	B7	C1	C2	C3	C4	D
Renovation	Operational energy use	Operational water use	Dismantling / Demolition	Transportation	Waste treatment	Disposal	Reuse, recovery, recycling potential
			The end-of-life stage is mainly impacted by e.g.: <ul style="list-style-type: none"> • Deconstruction • Demolition • Transport to waste processing • Processing for recycling • Disposal 		In this phase as pr. Standard scenario is landfill and the option to recycle Rockpanel is not calculated into the numbers. It is possible to recycle the boards to new stone wool products, read more on www.rockpanel.co.uk		Reuse/recycle stage is mainly impacted by: In this EPD, this phase as a standard is calculated as landfill. Still it is important to stress that Rockpanel can be recycled.

Disclaimer

This document has been compiled for use as supporting documentation for an application for a building certification scheme. Rockpanel cannot guarantee that the presented document will be accepted by the certification owner.



MADE **FROM STONE.**

www.rockpanel.co.uk

Learn more about us, ask for product samples
and be inspired by attractive reference projects.



www.facebook.com/rockpanel

Be the first to discover our latest international projects.



www.x.com/rockpanel

Follow us for the latest news and updates.



Engage and interact.



www.instagram.com/rockpanel

Get inspired.

