
Made
from stone.
Rockpanel®
Dedicated to
Sustainability.

Content


Rockpanel

At Rockpanel, sustainability is more than a beautiful facade.

We must start building in a more sustainable way. How do we do it? Who – and what - can we trust when the big greenwashing machine starts spinning our industry? For 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.

The ROCKWOOL Group is committed to eleven 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. Rockpanel is impacted by five of these goals:

CLEAN WATER AND SANITATION

Improving water efficiency in our factories.

Goal

To reduce water consumption by 20% by 2030.

AFFORDABLE AND CLEAN ENERGY

Improving energy efficiency in our own (non-renovated) office buildings.

Goal

A 75% reduction by 2030.

DECENT WORK AND ECONOMIC GROWTH

ROCKWOOL group focuses on safety and the work environment in our production facilities.

Goal

Zero fatalities and a 10% reduction in incidents with lost time every year.

RESPONSIBLE CONSUMPTION AND PRODUCTION

The ROCKWOOL group is reducing the amount of waste to landfill.

Goals

85% less waste to landfill from production by 2030.

To expand product r ecycling to 30 countries by 2030.

CLIMATE ACTION

Paramount for ROCKWOOL Group is to reduce CO_2 emissions from our factories.

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.

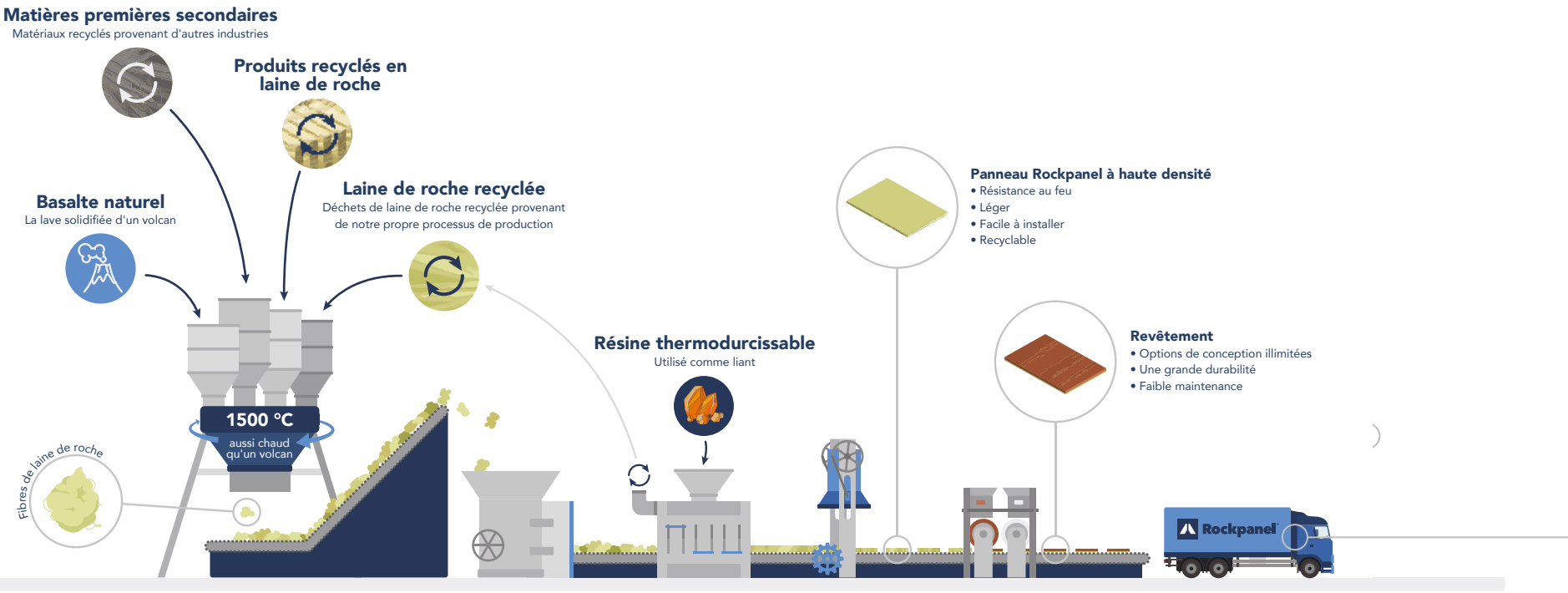
Download the latest annual ROCKWOOL Group Sustainability Report
www.rockwool.com/group/about-us/sustainability/sustainability-report-2023/

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 in landfill. 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 either 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 m^2 Rockpanel boards from only 1 m^3 of basalt.

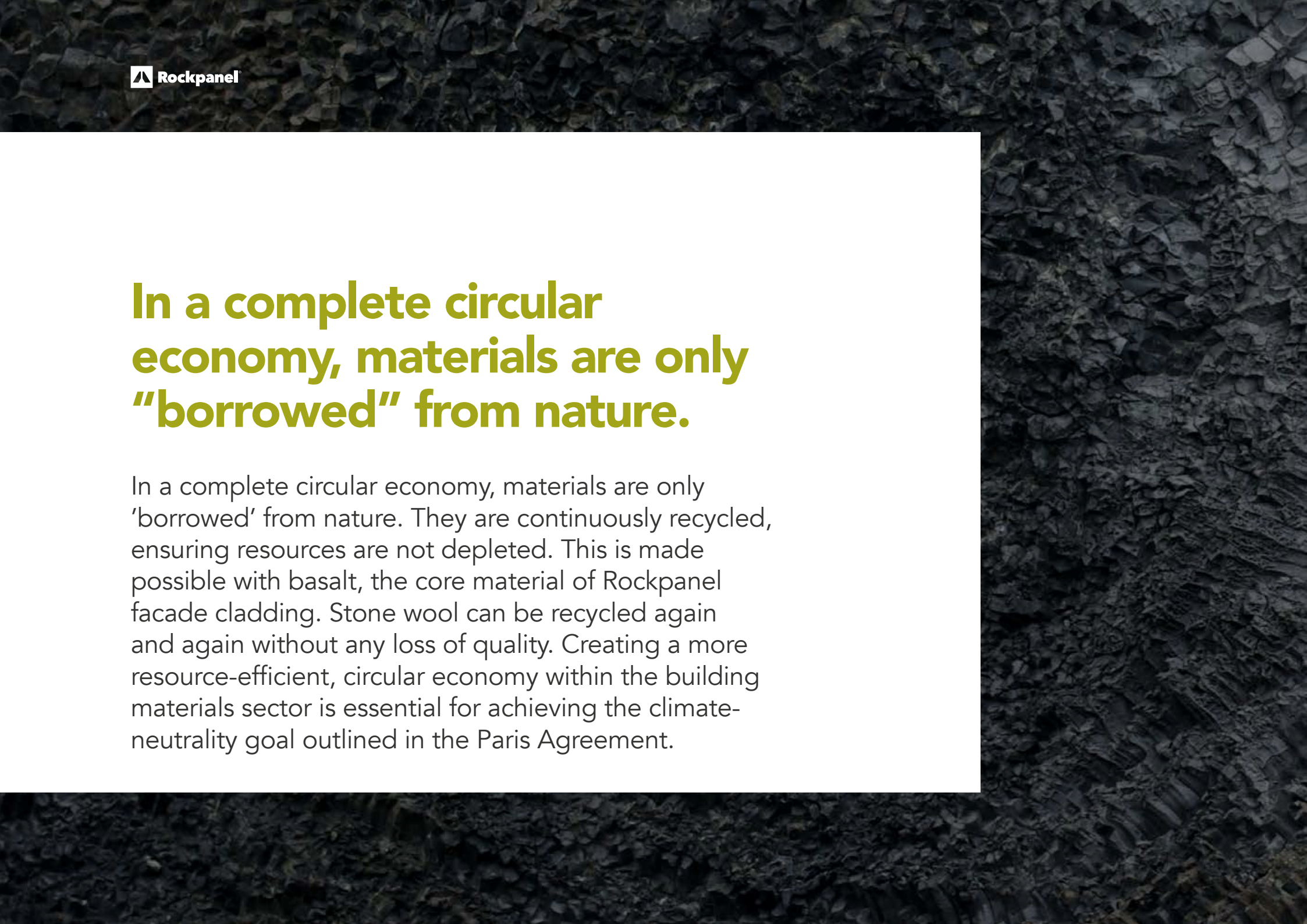
Step 3 Coating the boards

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 m^3 (in 2021 exact use was 2,804 m^3). 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 three stars. The program requires constant monitoring and improvement of the CO2 emissions from the transportation vehicles.

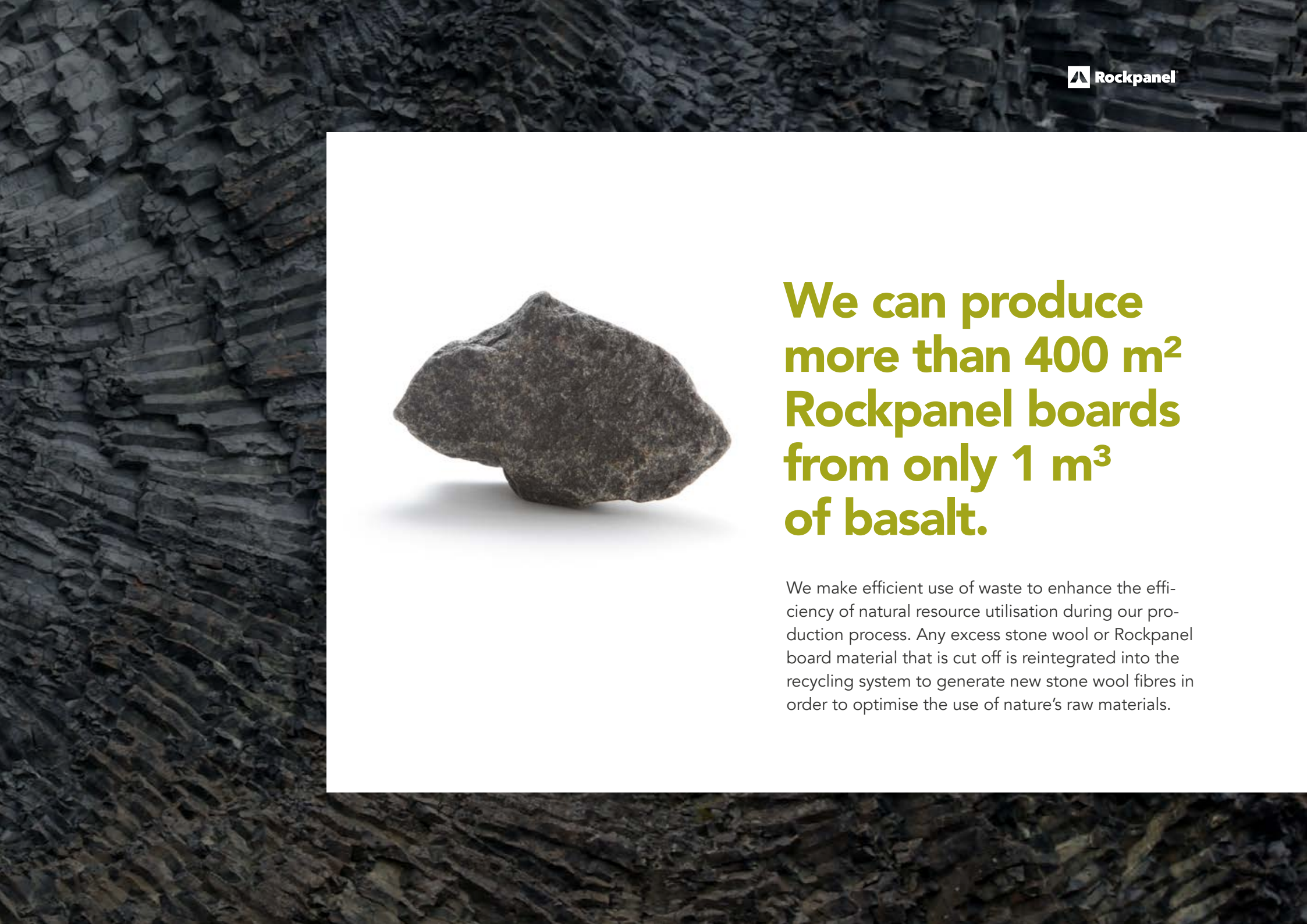
... and all over again

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.



In a complete circular economy, materials are only “borrowed” from nature.

In a complete circular economy, materials are only ’borrowed’ from nature. They are continuously recycled, ensuring resources are not depleted. This is made possible with basalt, the core material of Rockpanel facade cladding. Stone wool can be recycled again and again without any loss of quality. Creating a more resource-efficient, circular economy within the building materials sector is essential for achieving the climate-neutrality goal outlined in 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.

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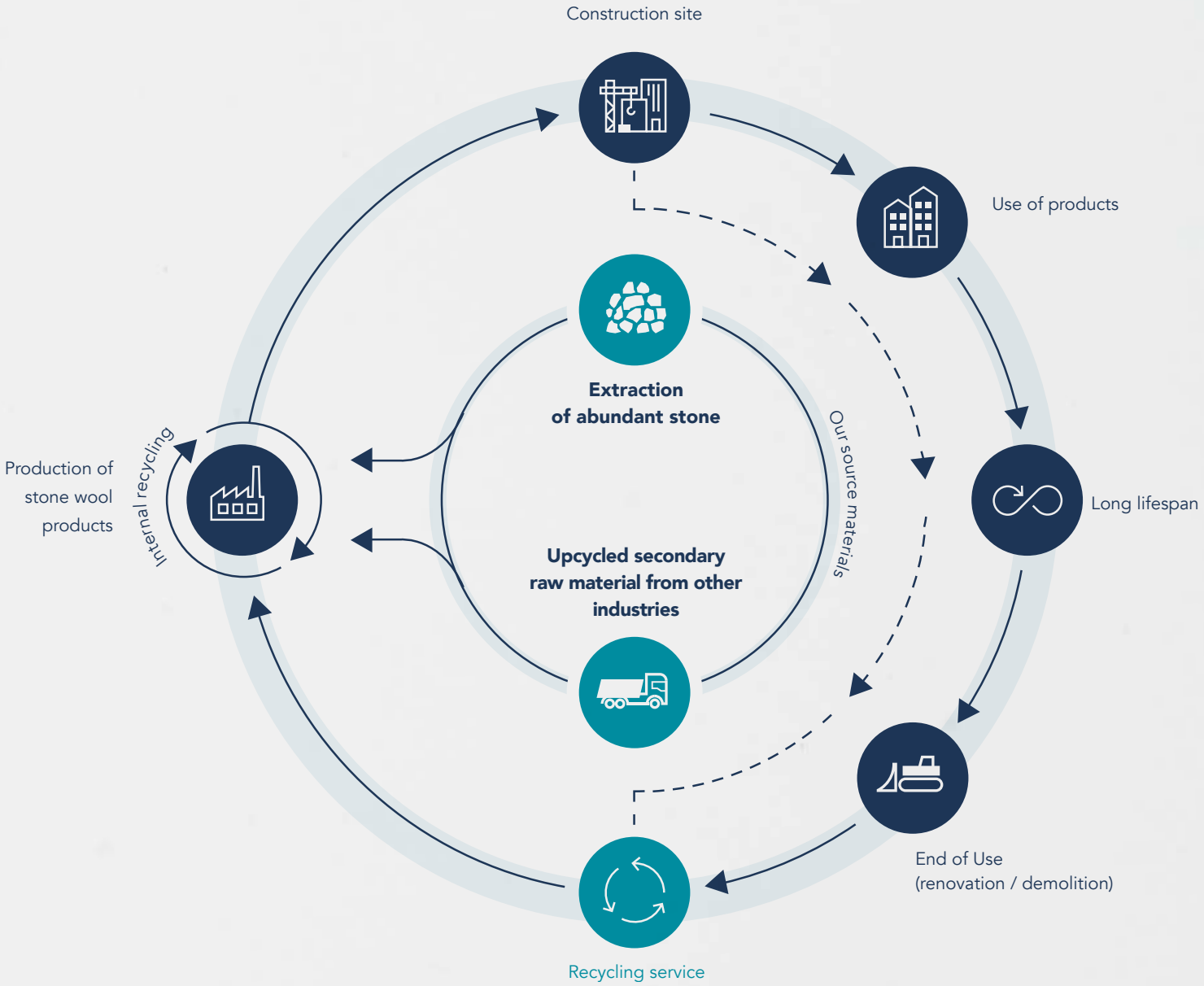
No waste from production goes to landfill.

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. On the contrary, 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 cleaned and re-used. When aiming for a fully circular economy, it all adds up.

Rockpanel


Construction site
Use of products
Long lifespan
End of Use
(renovation / demolition)
Recycling service
Production of
stone wool
products
Internal recycling
Extraction
of abundant stone
Upcycled secondary
raw material from other
industries
Our source materials

Rockpanel

Even the electricity comes from renewable energy.

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


Rockpanel

Rockpanel

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. And these qualities are guaranteed for a minimum of 50 years.

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.

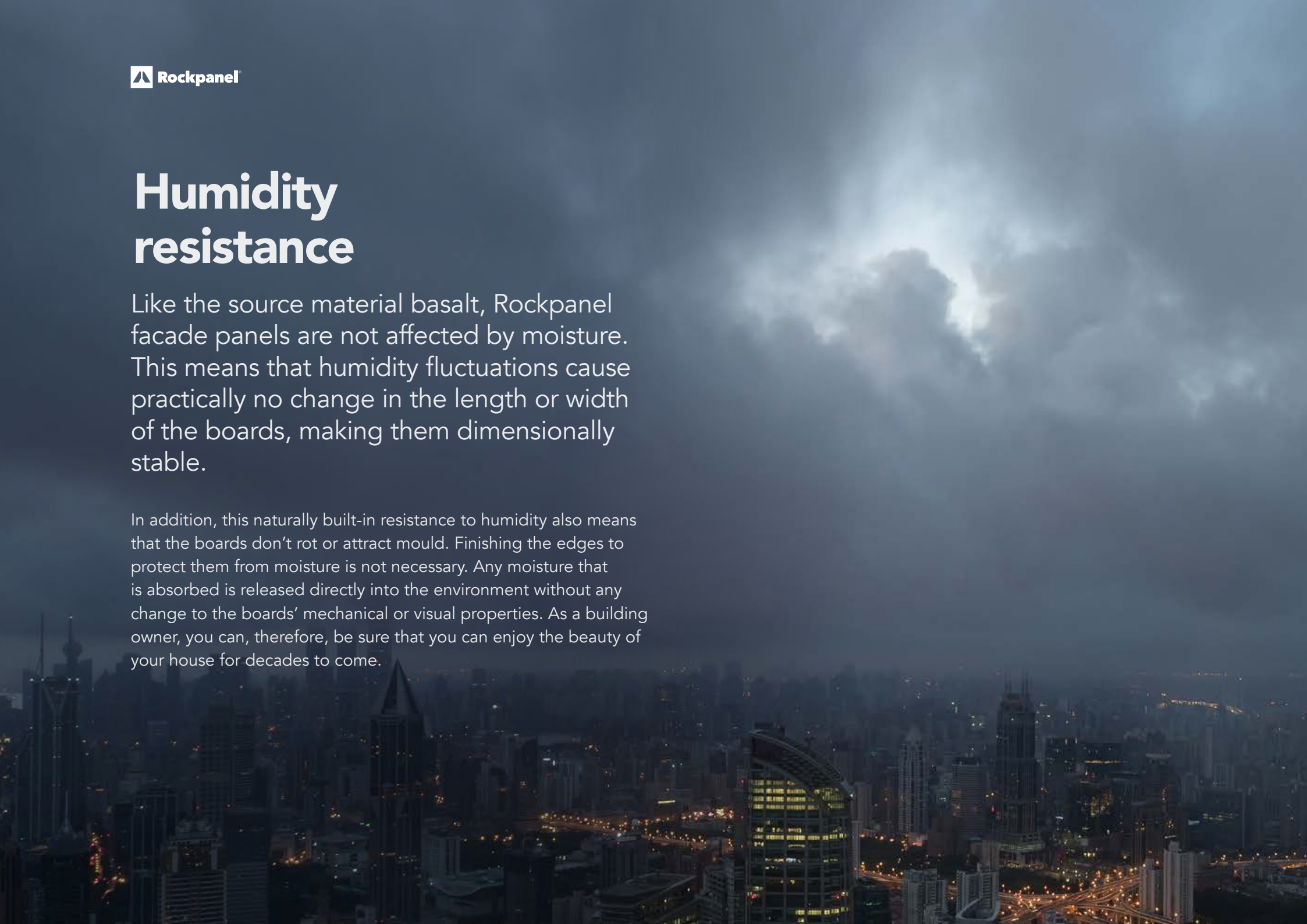
Loss of colour, dimensional instability, weathering, rot, and mould. The aesthetic and functional durability of facade cladding is crucial to its longevity. Rockpanel facade boards have an officially confirmed lifetime of 50 years by an independent body (ETA).

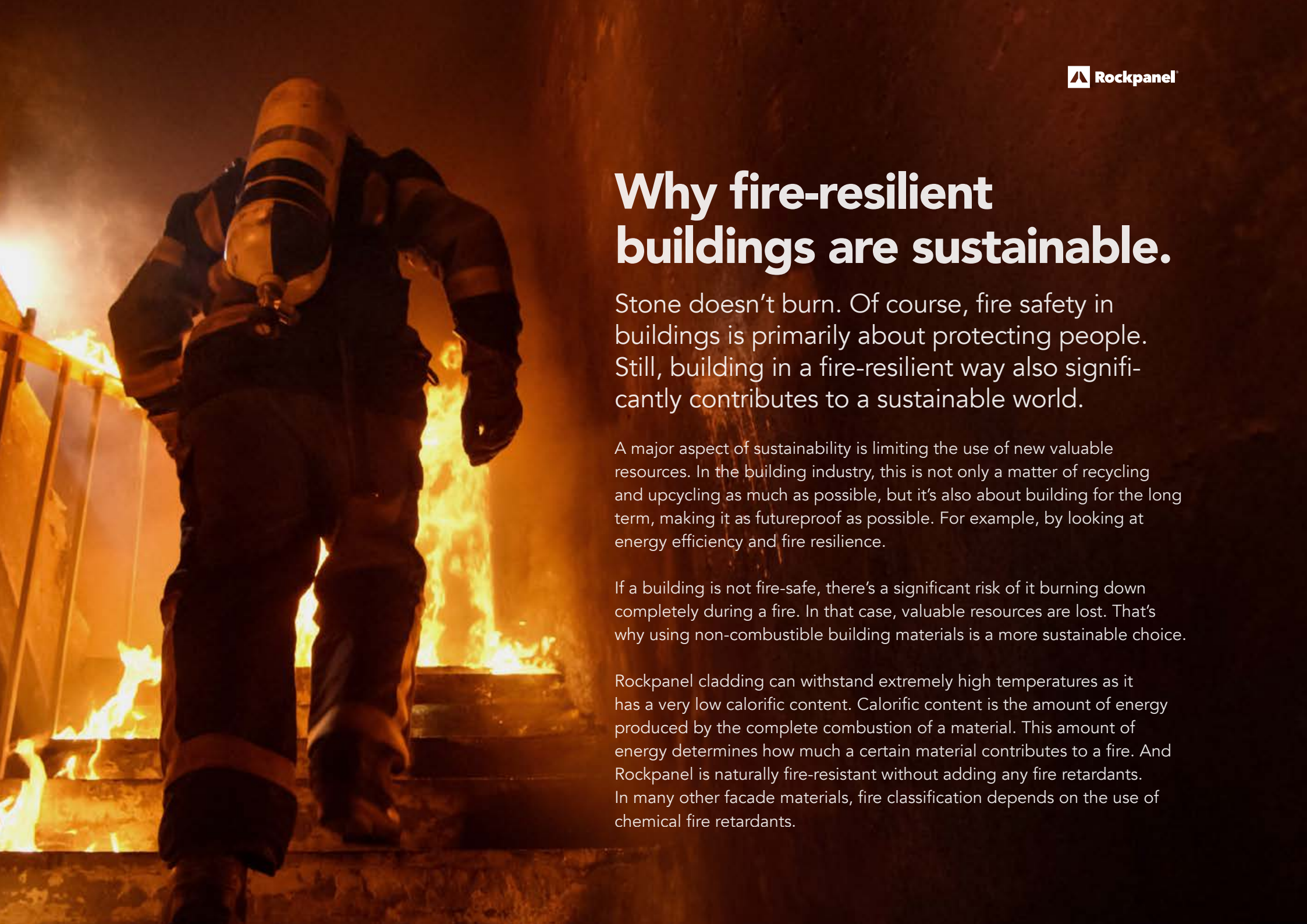
Rockpanel

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.





Why fire-resilient buildings are sustainable.

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-resistant without adding any fire retardants. In many other facade materials, fire classification depends on the use of chemical fire retardants.

Ensuring safer materials with Rockpanel

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

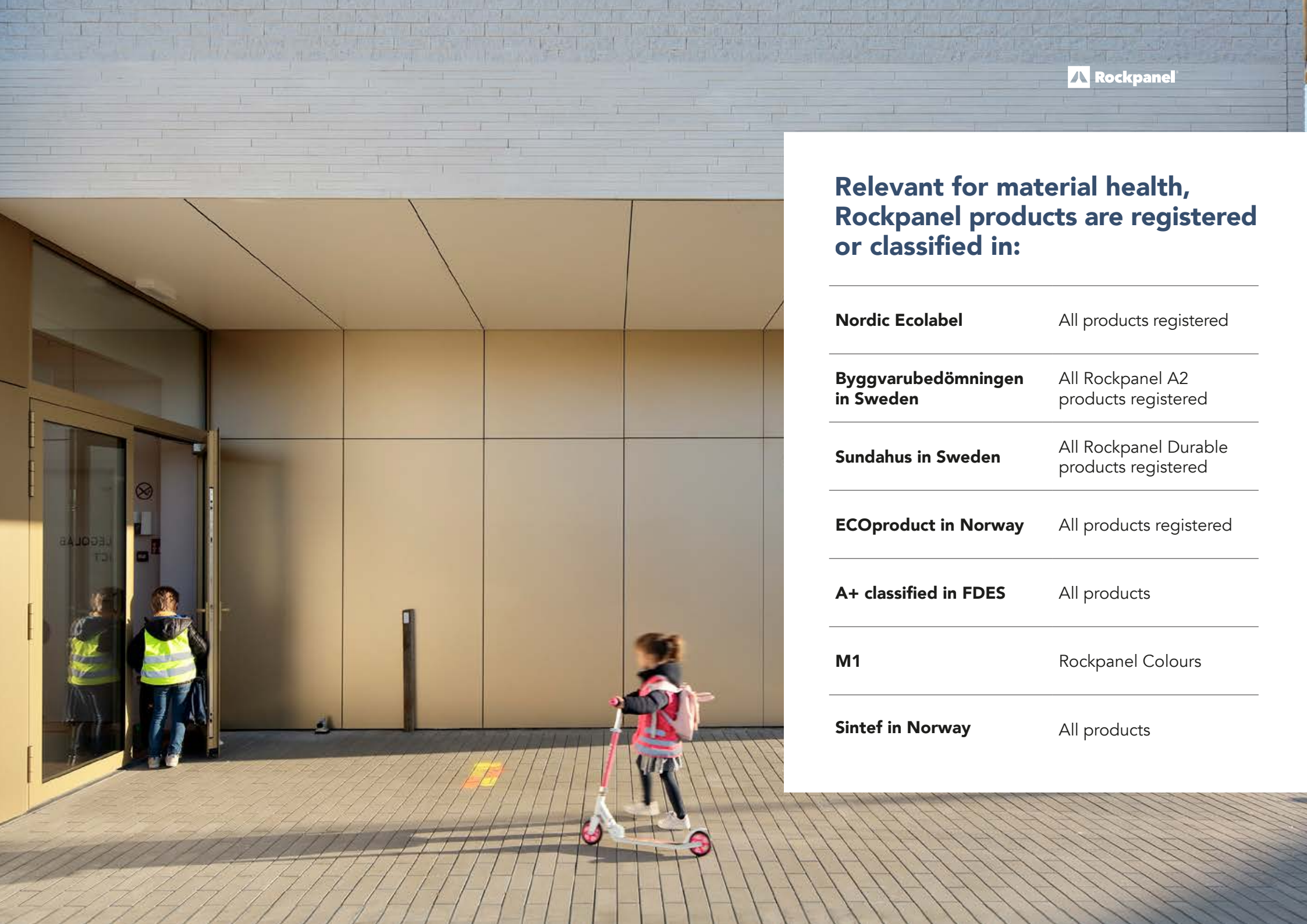
Rockpanel boards do not contain fire retardants, ensuring they meet safety standards without compromising material health.

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.



Relevant for material health, Rockpanel products are registered or classified in:

Nordic Ecolabel	All products registered
Byggvarubedömningen in Sweden	All Rockpanel A2 products registered
Sundahus in Sweden	All Rockpanel Durable products registered
ECOproduct in Norway	All products registered
A+ classified in FDES	All products
M1	Rockpanel Colours
Sintef in Norway	All products

Contributing to circular economy with Cradle to Cradle Certified® products.

Rockpanel is Cradle to Cradle certified® at silver level on Rockpanel Colours and Rockpanel Natural, our base board, 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.

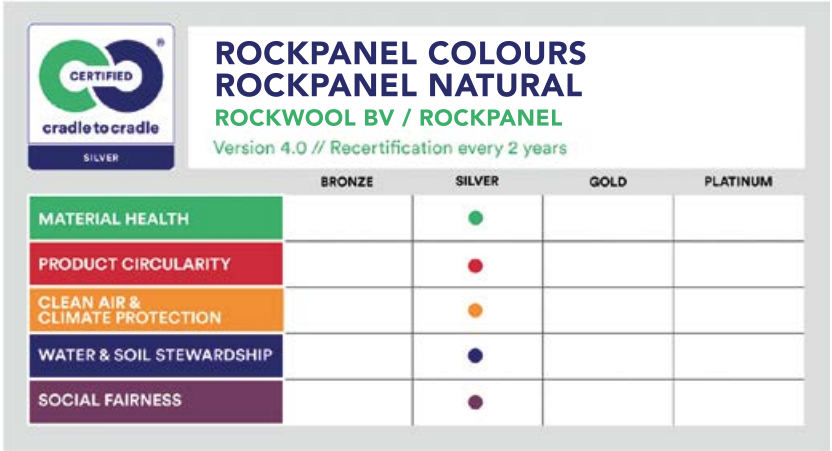
Being Cradle to Cradle Certified is also recognised by several major building rating schemes such as e.g. LEED, and DGNB. Therefore, when using a Cradle to Cradle Certified product, you can earn more points in these building rating schemes.

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**


Rockpanel

Supporting conscious 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 a full EPD for all our products can help obtain sustainability certification according to the most-used schemes.

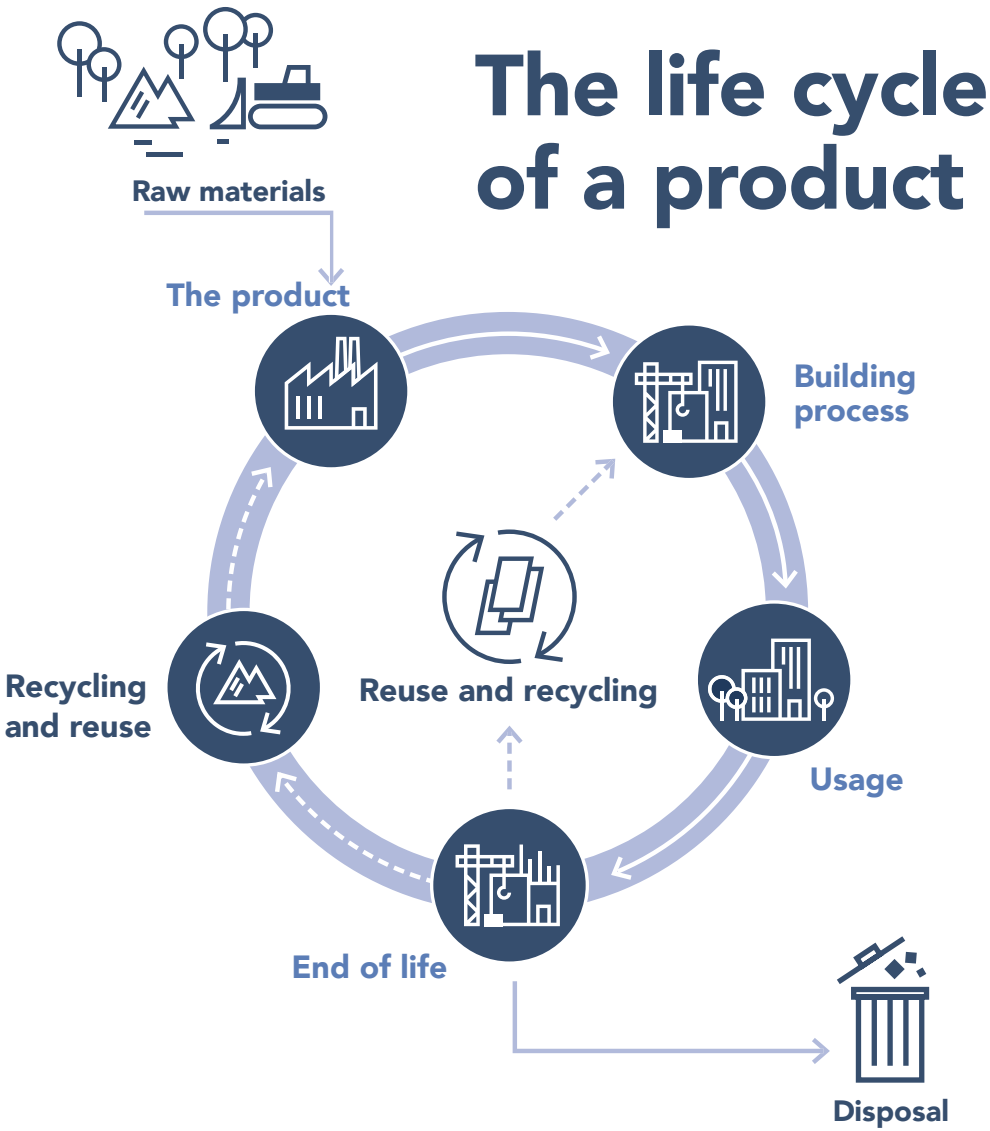
Working with Rockpanel is more than working with the inherent natural qualities of stone. It is also working with all the documentary tools that provide ease of mind by ensuring sustainability.

We offer an EPD (Environmental Product Declaration) 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.

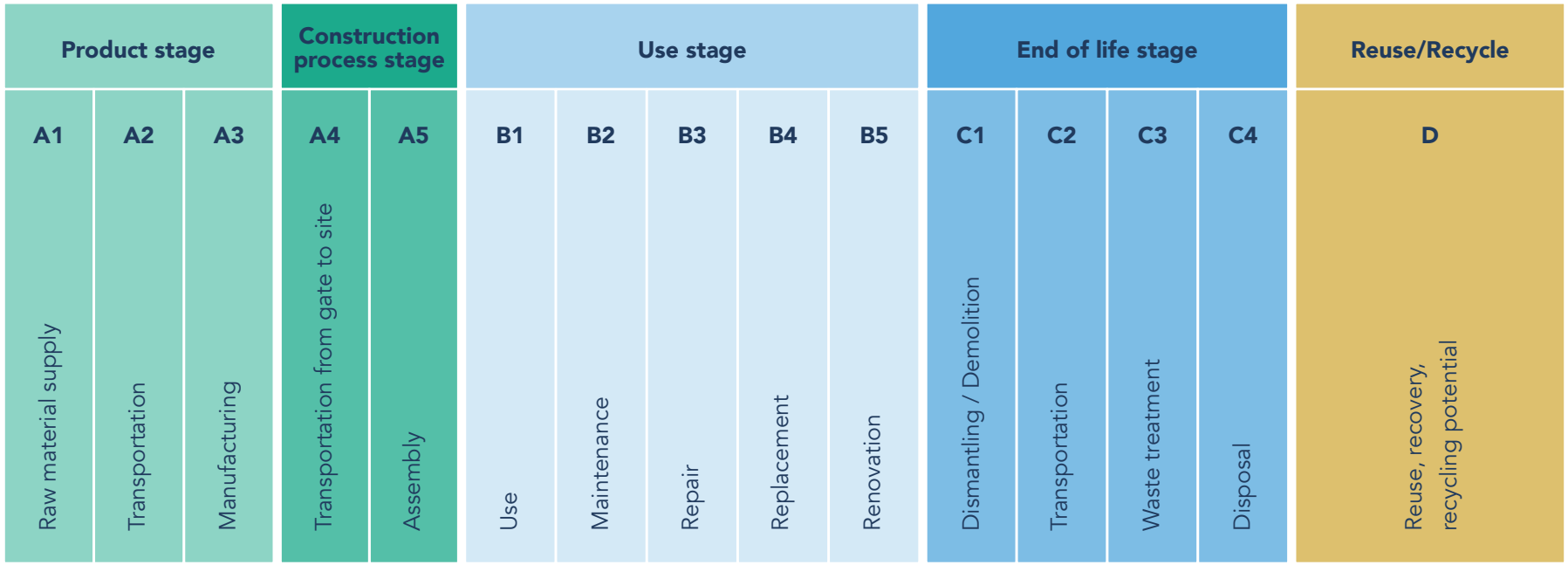
What is an EPD?

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.



Data in an EPD is structured as follows:



Our contribution to certification.

Our dedication to sustainability relies on facts. In the following, you will find a list of relevant building certifications, and how Rockpanel can contribute to them, thereby supporting more sustainable buildings.

BREEAM International Certification

BREEAM International for new constructions standards provide a framework to deliver high performance, and sustainable, newly built assets that support commercial success, whilst also creating positive environmental and social impact. The BREEAM International process facilitates this in a cost-effective, independent, and scientific manner. The certification scheme is an adaptable sustainable standard, recognised and adopted in 89 countries, including the UK, Poland, Germany, Spain, and Sweden. Rockpanel is a durable cladding solution made from stone and has a high-quality cured (waterborne) coating surface. Rockpanel is known for its fire-resilient properties, which make the products attractive according to the purpose of BREEAM International.

Relevant documentation

To support your documentation requirements, Rockpanel has collected all available sustainability documentation with a link for direct download as a full package or a single file.

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Documentation for download	BREEAM International sections and issues	
Rockcycle system – Construction Waste	Wst 01	Construction waste management
Rockcycle system – Demolition waste	Mat 06	Material efficiency and reuse
Supplier declaration	Man 03	Responsible construction practices
Environmental Product Declaration (EPD)	Mat 01	Life Cycle Impacts
	Ene 04	Low carbon design
Emission classification	Mat 02	Environmental impacts from construction products - Product requirement
	Hea 02	Indoor air quality
Safety sheet	Mat 02	Environmental impacts from construction products - Product requirement
Declaration of Performance (DoP)	Man 01	Project brief and design
	Hea 04	Thermal comfort
	Hea 05	Acoustic performance (density)
	Ene 01	Building energy performance
	Ene 04	Low carbon design
	Mat 02	Environmental impacts from construction products - Product requirement
	Mat 05	Designing for durability and climate adaption
ISO 14001-certification	Mat 03	Responsible sourcing of construction products
Supplier declaration: Recycled content (See page 54)	Mat 06	Material efficiency and reuse

If you are missing any information, please reach out to Rockpanel Technical Service (info@rockpanel.com), who will seek to guide you to the required information.

How Rockpanel can contribute to BREEAM International across themes and criteria

BREEAM Categories

MANAGEMENT	
Man 01	**Project brief and design** Rockpanel can support with a broad range of sustainability objectives, e.g.: - Closed loop recycling - No addition of flame retardants or biocides - Full life cycle EPDs - ISO 14001 certified production
Man 02	**Life cycle cost and service life planning** Rockpanel is a durable product that will continue to maintain low energy consumption throughout the lifespan of the building. The natural use of resources such as stone and waterborne coatings makes the product robust and durable for a long time. Rockpanel is not sensitive to moisture and is UV-resistant, which prevents both thermal expansion and fading of colours. The panels are low maintenance. With the ProtectPlus layer the panels have an extra protection (anti-graffiti) and self-cleaning properties. Rockpanel boards have an officially confirmed lifetime (ETA) of 50 years.
Man 03	**Responsible construction practices** The unique circular, Rockcycle return scheme, secures that all surplus stone wool material can be returned to the nearest ROCKWOOL facility, where it will be recycled into new stone wool material. The panels are light weight, easy to install and can be adjusted on site. This reduces construction waste. For larger projects customized dimensions can be produced resulting in less waste on the building site. Rockpanel is certified with: - European Technical Assessment (ETA) - Nordic Ecolabel (can be used for Svan certified buildings) - BRE Environmental Profiles A+ - BvB registration - SundaHus registration - M1 classification on Rockpanel Natural and Colours - Air à l'intérieur des bâtiments (FDES): A+
HEALTH AND WELLBEING	
Hea 02	**Indoor air quality** Rockpanel Natural and Colours is certified low emission according to M1 and Air à l'intérieur des bâtiments (FDES): A+.
Hea 05	**Acoustic performance** The acoustic performance of Rockpanel facades is excellent as the ventilated facade acts as a sound barrier. The sound insulation values may vary depending on the insulation used behind the Rockpanel facade in each project, but generally, it provides effective noise reduction and sound insulation.
ENERGY	
Ene 01	**The energy performance of the building** With a Rockpanel ventilated facade optimal thermal comfort can be achieved with limited thickness compared to alternative facades. The cladding protects the building, and the natural ventilation creates a healthy indoor climate.
Ene 04	**Low carbon design** Rockpanel boards have an officially confirmed lifetime (ETA) of 50 years. They are made of highly compressed stone wool fibres from the natural material basalt, a volcanic rock that can withstand extremely high temperatures by nature. As a result, no fire retardants are incorporated into the products and the products will maintain their mechanical properties over the whole lifetime.
MATERIALS	
Mat 01	**Life cycle impacts** Rockpanel 3rd party verified product specific EPD is available on the Rockpanel web site. The current EPD is made according to European standard EN 15804:2012-04+A1 2013 and covers the full lifecycle from cradle to grave (A1-A5, C1-C4 and D). The new EPD according to standard EN 15804+A2:2019 will be released in 2024. The environmental impact of Rockpanel cladding is significantly lower, with a minimum of 15% reduction when compared to natural stone slab facades (sourced outside Europe). It's important to note that LCA results may differ based on the unique requirements of each project. Rockpanel boards have an officially confirmed lifetime (ETA) of 50 years.

Mat 03	**Responsible sourcing of construction production** The production of Rockpanel is certified under ISO 14001. The supplier of basalt is also ISO 14001 certified. Additionally, all suppliers for Rockpanel must sign up for the Code of Conduct for suppliers for ROCKWOOL Group. Rockpanel exclusively uses green electricity in all its factories and office buildings. Production waste is fully recycled and up to 50% of the raw materials used in the facade panels are recycled materials.
Mat 05	**Designing for durability and resilience** Rockpanel boards have an officially confirmed lifetime (ETA) of 50 years. Rockpanel boards have a four-layer water-based coating that protects against UV radiation, preserves colours, and requires very little effort on cleaning and maintenance. The ProtectPlus layer adds even more UV resistance and anti-graffiti properties. Rockpanel boards are made of highly compressed stone wool fibres from the natural material basalt, a volcanic rock that can withstand extremely high temperatures by nature. As a result, no fire retardants are incorporated into the products. Rockpanel facade panels are not affected by temperature, fluctuations, moisture or rain. The panels keep the dimensions under all circumstances.
Mat 06	**Material efficiency** Rockpanel facade cladding is a fully recyclable product. Rockpanel can take back their products when the building is demolished or refurbished and uses the recycled materials in the production of new Rockpanel and other stone wool products. Rockpanel facade systems can be easily and completely dismantled. The boards can be reused directly on site or can be split into clean and fully recyclable parts for reuse offsite. Rockpanel also uses secondary materials from other industries and reduces therefore the amount of waste going to landfills as well as the use of virgin raw materials. The average recycled content in 2022 was 35 percent.

WASTE	
Wst 01	**Construction waste management** Rockpanel can take back their products when the building is demolished or refurbished and uses the recycled materials in the production of new Rockpanel or other stone wool products. Rockpanel facade systems can be easily and completely dismantled and split into clean and fully recyclable parts.
Wst 05	**Adaption to climate change** Rockpanel boards are made of highly compressed stone wool fibres from the natural material basalt, a volcanic rock that can withstand extremely high temperatures by nature. As a result, no fire retardants are incorporated into the products. Rockpanel facade panels are not affected by temperature, fluctuations, moisture or rain. The panels keep the dimensions under all circumstances.

BREEAM NL certification

BREEAM-NL for new construction standard provides a framework to deliver high performance, and sustainable, newly built assets that support commercial success, whilst also creating positive environmental and social impact. The BREEAM-NL process facilitates this in a cost-effective, independent, and scientific manner. The certification scheme is based on the BREEAM international guidelines. BREEAM-NL is adapted and recognised for the Dutch market. The BREEAM-NL New Construction 2020 v1.0 guideline is applicable for office, retail, education, care, sport, public and light industry real estate (non-residential) and can be applied on the complete building, shell and installations or just the building shell.

Rockpanel is a sustainable and durable cladding solution made of stone wool and has a high-quality acrylic or resin coating surface. Rockpanel is known for its fire-resistant properties and sound insulation ability, which makes the product attractive according to the purpose of BREEAM-NL.

Relevant documentation
To support your documentation requirements, Rockpanel has collected all available sustainability documentation with a link for direct download as a full package or a single file.

Documentation for download	**BREEAM NL sections and issues**	
Rockcycle system – Construction Waste	Wst 01	Construction waste management
Rockcycle system – Demolition waste	Mat 06	Material efficiency and reuse
EPD (Environmental product declaration)	Mat 01	Environmental impacts from construction products
Declaration of performance (DoP)	Hea 04	Thermal Comfort
	Hea 05	Acoustic performance
	Ene 01	Building energy performance
	Mat 05	Robustness of building materials
	Pol 05	Reduction of noise pollution (density)
ISO 14001-certification	Mat 03	Responsible sourcing of construction products
Supplier declaration: Recycled content (See page 54)	Mat 06	Material efficiency and reuse

If you are missing any information, please reach out to Rockpanel technical service (info@rockpanel.nl), who will seek to guide you to the required information.

How Rockpanel can contribute to BREEAM NL across themes and criteria

BREEAM Categories		Achievable Points (to which Rockpanel can contribute)
MANAGEMENT		
Man 02	**Life cycle cost** Rockpanel boards have an officially confirmed lifetime (ETA) of 50 years. Rockpanel boards have a four-layer water-based coating that protects against UV radiation, preserves colours, and requires very little effort on cleaning and maintenance. The ProtectPlus layer adds even more UV resistance and anti-graffiti properties.	3
HEALTH AND WELLBEING		
Hea 02	**Indoor air quality** Rockpanel products come with a NEN-EN 717 declaration (see DoP table 3).	1
Hea 05	**Acoustic performance** The acoustic performance of Rockpanel facades is excellent, as the ventilated facade acts as a sound barrier. The sound insulation values may vary depending on the insulation used behind the Rockpanel facade in each project, but generally, it provides effective noise reduction and sound insulation.	1
Hea 10	**Biophilic design** The freedom of design in shapes of Rockpanel can contribute to create biomorphic shapes and patterns in facades.	1
ENERGY		
Ene 01	**The energy performance of the building** With a Rockpanel ventilated facade optimal thermal comfort can be achieved with limited thickness compared to alternative facades. The cladding protects the building, and the natural ventilation creates a healthy indoor climate.	≤15
MATERIALS		
Mat 01	**Environmental impacts from construction products** Rockpanel 3rd party verified product specific EPD is available for download at the Rockpanel website. For the Dutch NMD (Nationale Milieudatabase) ROCKWOOL has registered the values against the EN 15804+A2:2019. This can be used for the MPG calculations. In addition to this, the Cat 1 data profile of Rockpanel also contributes to the percentage of product specific full life cycle EPDs.	5
Mat 03	**Responsible sourcing of construction products** Rockpanel exclusively uses green electricity in all its factories and office buildings. Production waste is fully recycled, and up to 50% of the raw materials used in the facade panels are recycled materials. The production of Rockpanel is certified under ISO 14001. The supplier of basalt is also ISO 14001 certified. Additionally, all suppliers for Rockpanel must sign up for the Code of Conduct for suppliers for ROCKWOOL Group.	3
Mat 05	**Robustness of building materials** Rockpanel boards have an officially confirmed lifetime (ETA) of 50 years. Rockpanel boards have a four-layer water-based coating that protects against UV radiation, preserves colours, and requires very little effort on cleaning and maintenance. The ProtectPlus layer adds even more UV resistance and anti-graffiti properties.	1
Mat 06	**Material efficiency** Rockpanel facade panels can contribute to the maintenance, reusability and replacement of the facade construction. Rockpanel facade systems can be easily and completely dismantled if the panels are assembled with rivets, nails or screws and split into clean and fully recyclable parts. Rockpanel facade cladding is a fully recyclable product. Rockpanel takes back their products when the building is demolished or refurbished and uses the recycled materials in the production of new Rockpanel products. Rockpanel facade cladding is a fully recyclable product. Rockpanel also uses secondary materials from other industries and reduces therefore the amount of waste going to landfills as well as the use of virgin raw materials. The average recycled content in 2022 was 35 percent. All waste handlers are eligible to return Rockpanel waste to a Rockcycle partner.	1
Mat 07	**Design for disassembly and adaptability** Rockpanel facades can contribute to the disassembly of the construction. Rockpanel facade systems can be easily and completely dismantled and split into clean and fully recyclable parts if the panels are mounted with rivets, screws or nails.	1

WASTE		
Wst 01	**Construction waste management** Rockpanel facade cladding is a fully recyclable product. Rockpanel takes back their products when the building is demolished, refurbished or leftover/remnants of new construction projects, and uses the recycled materials in the production of new Rockpanel products. Rockpanel facade systems can be easily and completely dismantled and split into clean and fully recyclable parts if the panels are assembled with rivets, screws or nails. Rockpanel facade cladding is a fully recyclable product. All waste handlers are eligible to return Rockpanel waste to a Rockcycle partner.	1
POLLUTION		
Pol 05	**Reduction of noise pollution** The acoustic performance of Rockpanel facades is excellent as the ventilated facade acts as a sound barrier. The sound insulation values may vary depending on the insulation used behind the Rockpanel facade in each project, but generally, it provides effective noise reduction and sound insulation.	1

BREEAM NOR certification

The purpose of BREEAM-NOR for new constructions is to reduce negative environmental impact from new buildings and improve the building's positive impact on society and economy throughout its lifespan. The BREEAM-NOR process facilitates this in a cost-effective, independent, and scientific manner.

Rockpanel boasts sustainability and durability, thanks to a variety of factors, including its low environmental impact, emphasis on circularity, and exceptional sound insulation capabilities. These qualities make the product highly appealing in line with the goals of BREEAM-NOR.

Relevant documentation
To support your documentation requirements, Rockpanel has collected all available sustainability documentation with a link for direct download as a full package or a single file.

Documentation for download	BREEAM-NOR v6 sections and issues	
Rockcycle system – Construction Waste	Wst 01	Construction waste management
Environmental Product Declaration (EPD)	Mat 01	Environmental impacts from construction products – LCA and GHG calculations
	Mat 02	Environmental impacts from construction products - Product requirement
Emission classification	Mat 02	Indoor air quality
	Hea 02	Environmental impacts from construction products – Product requirement
Safety sheet	Mat 02	Project brief and design
Declaration of Performance (DoP)	Man 01	Life cycle cost and service life planning
	Man 02	Thermal comfort
	Hea 03	Acoustic performance
	Hea 05	Building energy performance
	Ene 01	Designing for durability and climate adaption
	Mat 05	Responsible sourcing of construction products
ISO 14001-certification	Mat 03	Material efficiency and reuse
Supplier declaration: Recycled content (See page 54)	Mat 01	Environmental impacts from construction products – LCA and GHG calculations

If you are missing any information, please reach out to Rockpanel Technical Service (info@rockpanel.no), who will seek to guide you to the required information.

How Rockpanel can contribute to BREEAM-NOR across themes and criteria

BREEAM Categories

MANAGEMENT	
Man 01	**Project brief and design** Rockpanel can support a broad range of sustainability objectives, e.g.: - Closed loop recycling - No addition of flame retardants or biocides - Full life cycle EPDs - ISO 14001 certified production
Man 02	**Life cycle cost and service life planning** Rockpanel is a durable product that will continue to maintain low energy consumption throughout the lifespan of the building. The natural use of resources such as stone and waterborne coatings makes the product robust and durable for a long time. Rockpanel is not sensitive to moisture and is UV-resistant, which prevents both thermal expansion and fading of colours. The panels are low maintenance. With the ProtectPlus layer the panels have an extra protection (anti-graffiti) and self-cleaning properties. Rockpanel boards have an officially confirmed lifetime (ETA) of 50 years.
HEALTH AND WELLBEING	
Hea 02	**Indoor air quality** Rockpanel Natural and Colours is certified low emission according to M1.
Hea 05	**Acoustic performance** The acoustic performance of Rockpanel facades is excellent as the ventilated facade acts as a sound barrier. The sound values may vary depending on the insulation used behind the Rockpanel facade in each project, but generally, it provides effective noise reduction and sound insulation.
ENERGY	
Ene 01	**The energy performance of the building** With a Rockpanel ventilated facade optimal thermal comfort can be achieved with limited thickness compared to alternative facades. The cladding protects the building, and the natural ventilation creates a healthy indoor climate.

MATERIALS	
Mat 01	**Environmental impacts from construction products – LCA and greenhouse gas calculations** The environmental impact of Rockpanel cladding panels is significantly lower, with a minimum of 15% reduction when compared to natural stone slab facades (sourced outside Europe). It's important to note that LCA results may differ based on the unique requirements of each project. Rockpanel boards have an officially confirmed lifetime (ETA) of 50 years. Rockpanel exclusively uses green electricity in all its factories and office buildings. Production waste is fully recycled, and up to 50% of the material used in the facade panels is made of recycled material. Of which approximately 35% is reclaimed pre-consumer content and around 8% is post-consumer content including third-party material. EPDs: See Mat 02
Mat 02	**Environmental impacts from construction products – product requirements** Rockpanel's 3rd party verified product specific EPD is available via Link. The current EPD is made according to European standard EN 15804:2012-04+A1 2013 and covers the full life cycle from cradle to grave (A1-A5, C1-C4 and D). A new EPD according to standard EN 15804+A2:2019 will be released in 2024. Rockpanel boards are listed as ECOProduct and are free of any environmental toxins.
Mat 03	**Responsible sourcing of construction products** The production of Rockpanel is certified according to ISO 14001. The supplier of basalt is also ISO 14001 certified. Additionally, all suppliers for Rockpanel must sign up for the Code of Conduct for suppliers for ROCKWOOL Group.
Mat 05	**Designing for durability and climate adaption** Rockpanel boards have an officially confirmed lifetime (ETA) of 50 years. Rockpanel boards have a four-layer water-based coating that protects against UV radiation, preserves colours, and requires very little effort on cleaning and maintenance. The ProtectPlus layer adds even more UV resistance and anti-graffiti properties. Rockpanel boards are made of highly compressed stone wool fibres from the natural material basalt, a volcanic rock that can withstand extremely high temperatures by nature. As a result, no fire retardants are incorporated into the products. Rockpanel facade panels are not affected by temperature, fluctuations, moisture or rain. The panels keep the dimensions under all circumstances.

Mat 06	**Material efficiency and reuse** Rockpanel facade cladding is a fully recyclable product. Rockpanel can takeback their products when the building is demolished or refurbished and uses the recycled materials for the production of new Rockpanel and other stone wool products. Rockpanel facade systems can be easily and completely dismantled. The boards can be reused directly on site or can be split into clean and fully recyclable parts for reuse offsite. Rockpanel also uses secondary materials from other industries and reduces therefore the amount of waste going to landfills as well as the use of virgin raw materials. The average recycled content in 2022 was 35 percent.
Mat 07	**Design for disassembly and adaptability** Rockpanel facade cladding can be easily adjusted and cut on site according to specific measurements, saving both time and installation costs. The panels can be processed using common tools like hand saws and circular saws. Rockpanel boards are easy to dismantle and can be moved or reused directly.
WASTE	
Wst 01	**Construction waste management** Rockpanel can take back their products from of waste/rest materials during the construction phase or when the building is demolished or refurbished. Rockpanel uses the recycled materials for the production of new Rockpanel or other stone wool products. Rockpanel facade systems can be easily and completely dismantled and split into clean and fully recyclable parts.

DGNB DK certification

The DGNB certification system takes a comprehensive approach to sustainability, encompassing the three key pillars of social, economic, and environmental sustainability, as outlined by the United Nations. These are supplemented with assessments of technical and process qualities as well as area qualities. Initially developed in Germany, the system has been tailored to meet the specific needs of the Danish market. It has gained significant traction in Denmark and is now the most widely used certification scheme.

DGNB is characterized by a holistic view of sustainability, where economic parameters are weighed equally with environmental and social parameters, making sustainability meaningful in daily practice in the construction industry.

Relevant documentation
To support your documentation requirements, Rockpanel has collected all available sustainability documentation with a link for direct download as a full package or a single file.

Documentation for download	DGNB categories	
Rockcycle system – Construction Waste	PRO1.4	Sustainability aspects in tender phase
	PRO2.1	Construction site / construction process
	ENV1.1	Building life cycle assessment
Rockcycle system – Demolition waste	TEC1.6	Ease of recovery and recycling
EPD (Environmental product declaration)	ENV1.1	Building life cycle assessment
	TEC1.8	Documentation with EPD
Emission classification	ENV1.2	Local environmental impact
	SOC1.2	Indoor air quality
Safety sheet	ENV1.2	Local environmental impact
Declaration of Performance (DoP)	SOC1.1	Thermal comfort
	SOC1.3	Acoustic comfort
	TEC1.1	Fire safety
	TEC1.3	Quality of the building envelope
Supplier declaration: Recycled content (See page 54)	TEC1.6	Ease of recovery and recycling
Cradle to Cradle certified	TEC1.6	Ease of recovery and recycling

If you are missing any information, please reach out to Rockpanel Technical Service (info@rockpanel.dk), who will seek to guide you to the required information.

How Rockpanel can contribute to DGNB DK across criteria

DGNB Categories

PROCESS QUALITY	
PRO1.4	**Sustainability aspects in tender phase** Set sustainability requirements to building materials and suppliers e.g.: - Closed loop recycling - No addition of flame retardants or biocides - Full life cycle EPDs - ISO 14001 certified production
PRO1.5	**Documentation for sustainable management** Rockpanel products come with a surface coating that makes them easy to maintain. The manufacturer recommends cleaning once a year with cleaning agents without solvents.
PRO2.1	**Construction site / construction process** Rockpanel takes back their products from waste/rest during the construction phase. Rockpanel uses the recycled materials for the production of new Rockpanel or stone wool products.
ENVIRONMENTAL QUALITY	
ENV1.1	**Building life cycle assessment (LCA)** The environmental impact of Rockpanel cladding panels is significantly lower, with a minimum of 15% reduction when compared to natural stone slab facades (sourced outside Europe). It's important to note that LCA results may differ based on the unique requirements of each project. Rockpanel boards have an officially confirmed lifetime (ETA) of 50 years. Rockpanel 3rd party verified product specific EPD is available for download at the Rockpanel web site. The current EPD is made according to European standard EN 15804:2012-04+A1 2013 and covers the full life cycle from cradle to grave (A1-A5, C1-C4 and D). A new EPD according to standard EN 15804+A2:2019 will be released in 2024.
ENV1.2	**Local environmental impact** If Rockpanel products are used as outdoor facade cladding, they are not included in any indicators. Rockpanel is certified with: - European Technical Assessment (ETA) - Nordic Ecolabel (can be used for Svan certified buildings) - BRE Environmental Profiles A+ - BvB registration - SundaHus registration - M1 classification on Rockpanel Natural and Colours - Air à l'intérieur des bâtiments (FDES): A+
ECONOMIC QUALITY	
ECO1.1	**Life cycle cost** Rockpanel boards have an officially confirmed lifetime (ETA) of 50 years. The products will maintain their mechanical and thermal properties and thus fire resistance over the whole lifetime. Cleaning and maintaining requires minimal effort and anti-graffiti properties can be added.
ECO2.2	**Robustness** Rockpanel boards have an officially confirmed lifetime (ETA) of 50 years. Rockpanel boards have a four-layer water-based coating that protects against UV radiation, preserves colours, and requires very little effort on cleaning and maintenance. The ProtectPlus layer adds even more UV resistance and anti-graffiti properties.
SOCIAL QUALITY	
SOC1.2	**Indoor air quality** Rockpanel Natural and Colours is certified low emission according to M1.
SOC1.3	**Acoustic quality** The acoustic performance of Rockpanel facades is excellent as the ventilated facade acts as a sound barrier. The sound values may vary depending on the insulation used behind the Rockpanel facade in each project, but generally, it provides effective noise reduction and sound insulation.

TECHNICAL QUALITY	
TEC1.1	**Fire safety** Rockpanel boards are made of highly compressed stone wool fibres from the natural material basalt, a volcanic rock that can withstand extremely high temperatures by nature. As a result, no fire retardants are incorporated into the products. Rockpanel A2 boards, combined with stone wool insulation, meet the requirements for the European fire class A2-s1, d0, and can be classified as non-combustible according to national building regulations.
TEC1.3	**Quality of the building envelope** With a Rockpanel ventilated facade optimal thermal comfort can be achieved with limited thickness compared to alternative facades. The cladding protects the building, and the natural ventilation creates a healthy indoor climate.
TEC1.5	**Ease of cleaning components** Rockpanel boards require minimal cleaning and maintenance. The ProtectPlus layer adds anti-graffiti properties.
TEC1.6	**Ease of recovery and recycling** Rockpanel facade cladding is a fully recyclable product. Rockpanel can take back their products when the building is demolished or refurbished and uses the recycled materials in the production of new Rockpanel and other stone wool products. Rockpanel facade systems can be easily and completely dismantled and reused directly or split into clean and fully recyclable parts. Rockpanel also uses secondary materials from other industries and therefore reduces the amount of waste going to landfills as well as the use of virgin raw materials. The average recycled content in 2022 was 35 percent.
TEC1.8	**Environmental product declaration (EPD)** Rockpanel 3rd party verified product specific EPD is available for download at the Rockpanel web site.. The current EPD is made according to European standard EN 15804:2012-04+A1 2013 and covers the full life cycle from cradle to grave (A1-A5, C1-C4 and D). A new EPD according to standard EN 15804+A2:2019 will be released in 2024.

DGNB INTERNATIONAL certification

The DGNB certification system takes a comprehensive approach to sustainability, encompassing the three key pillars of social, economic, and environmental sustainability, as outlined by the United Nations. These are supplemented with assessments of technical and process qualities as well as area qualities. Initially developed in Germany, the system has been translated to English and can be used internationally. DGNB is represented in over 40 countries.

DGNB is characterized by a holistic view of sustainability, where economic parameters are weighed equally with environmental and social parameters, making sustainability meaningful in daily practice in the construction industry.

Relevant documentation

To support your documentation requirements, Rockpanel has collected all available sustainability documentation with a link for direct download as a full package or a single file.

Documentation for download	DGNB categories	
Rockcycle system – Construction Waste	PRO1.4	Sustainability aspects in tender phase
	PRO2.1	Construction site / construction process
	ENV1.1	Building life cycle assessment
Rockcycle system – Demolition waste	TEC1.6	Ease of recovery and recycling
EPD (Environmental product declaration)	ENV1.1	Building life cycle assessment (LCA)
	TEC1.8	Documentation with EPD
Emission classification	ENV1.2	Local environmental impact
	SOC1.2	Indoor air quality
Safety sheet	ENV1.2	Local environmental impact
Declaration of Performance (DoP)	SOC1.1	Thermal comfort
	SOC1.3	Acoustic comfort
	TEC1.1	Fire safety
	TEC1.3	Quality of the building envelope
Supplier declaration: Recycled content (See page 54)	TEC1.6	Ease of recovery and recycling
Cradle to Cradle certified	TEC1.6	Ease of recovery and recycling

If you are missing any information, please reach out to Rockpanel Technical Service (info@rockpanel.com), who will seek to guide you to the required information.

How Rockpanel can contribute to DGNB International across criteria

DGNB Categories

PROCESS QUALITY	
PRO1.4	**Sustainability aspects in tender phase** Set sustainability requirements to building materials and suppliers e.g.: - Closed loop recycling, - No addition of flame retardants or biocides - Full life cycle EPDs - ISO 14001 certified production
PRO1.5	**Documentation for sustainable management** Rockpanel products come with a surface coating that makes them easy to maintain. The manufacturer recommends cleaning once a year with cleaning agents without solvents.
PRO2.1	**Construction site / construction process** Rockpanel takes back their products from waste/rest materials during the construction phase. Rockpanel uses the recycled materials in the production of new Rockpanel or stone wool products.
ENVIRONMENTAL QUALITY	
ENV1.1	**Building life cycle assessment (LCA)** The environmental impact of Rockpanel cladding panels is significantly lower, with for example a minimum of 15% reduction when compared to natural stone slab facades (sourced outside Europe). It's important to note that LCA results may differ based on the unique requirements of each project. Rockpanel boards have an officially confirmed lifetime (ETA) of 50 years. Rockpanel 3rd party verified product specific EPD is available via Link. The current EPD is made according to European standard EN 15804:2012-04+A1 2013 and covers the full life cycle from cradle to grave (A1-A5, C1-C4 and D). A new EPD according to standard EN 15804+A2:2019 will be released in 2024.
ENV1.2	**Local environmental impact** If Rockpanel products are used as outdoor facade cladding, they are not included in any indicators. Rockpanel is certified with: - European Technical Assessment (ETA) - Nordic Ecolabel (can be used for Svan certified buildings) - BRE Environmental Profiles A+ - BvB registration - SundaHus registration - M1 classification on Rockpanel Natural and Colours - Air à l'intérieur des bâtiments (FDES): A+
ECONOMIC QUALITY	
ECO1.1	**Life cycle cost** Rockpanel boards have an officially confirmed lifetime (ETA) of 50 years. The products will maintain their mechanical and thermal properties and thus fire resistance over the whole lifetime. Cleaning and maintaining requires minimal effort and anti-graffiti properties can be added.
ECO2.2	**Commercial viability** Rockpanel boards have an officially confirmed lifetime (ETA) of 50 years. Rockpanel boards have a four-layer water-based coating that protects against UV radiation, preserves colours, and requires very little effort on cleaning and maintenance. The ProtectPlus layer adds even more UV resistance and anti-graffiti properties.
SOCIAL QUALITY	
SOC1.2	**Indoor air quality** Rockpanel Natural and Colours is certified low emission according to M1 and Air à l'intérieur des bâtiments (FDES): A+.
SOC1.3	**Acoustic quality** The acoustic performance of Rockpanel facades is excellent as the ventilated facade acts as a sound barrier. The sound values may vary depending on the insulation used behind the Rockpanel facade in each project, but generally, it provides effective noise reduction and sound insulation.

TECHNICAL QUALITY	
TEC1.1	**Fire safety** Rockpanel boards are made of highly compressed stone wool fibres from the natural material basalt, a volcanic rock that can withstand extremely high temperatures by nature. As a result, no fire retardants are incorporated into the products. Rockpanel A2 boards, combined with stone wool insulation, meet the requirements for the European fire class A2-s1, d0, and can be classified as non-combustible according to national building regulations.
TEC1.3	**Quality of the building envelope** With a Rockpanel ventilated facade optimal thermal comfort can be achieved with limited thickness compared to alternative facades. The cladding protects the building, and the natural ventilation creates a healthy indoor climate.
TEC1.5	**Ease of cleaning building components** Rockpanel boards require minimal cleaning and maintenance. The ProtectPlus layer adds anti-graffiti properties.
TEC1.6	**Ease of recovery and recycling** Rockpanel facade cladding is a fully recyclable product. Rockpanel can take back their products when the building is demolished or refurbished and uses the recycled materials in the production of new Rockpanel and other stone wool products. Rockpanel facade systems can be easily and completely dismantled and split into clean and fully recyclable parts. Rockpanel also uses secondary materials from other industries and reduces therefore the amount of waste going to landfills as well as the use of virgin raw materials. The average recycled content in 2022 was 35 percent.

HQE (Haute Qualité Environnemental) certification

HQE (Haute Qualité Environnemental), developed in 1996 by Alliance HQE-GBC, represents a French sustainability framework that evaluates all types of buildings and covers their entire life cycle. Although HQE is mainly applied in France, where it has a market leading position, the framework is also applied in other countries, such as Belgium, Germany, Turkey, Morocco, etc. The frameworks' goal is to improve knowledge, disseminate good practices, innovate & anticipate and represent & promote sustainable living.

The certification includes 21 main categories divided under four themes: Economic performance, responsible management, environmental respect, and quality of life. These 21 categories cover a wide range of sustainability aspects, such as waste, adaptability, water, energy, wellbeing, and governance, etc.

Relevant documentation

To support your documentation requirements, Rockpanel has collected all available sustainability documentation with a link for direct download as a full package or a single file.

Documentation for download	HQE sections and issues	
Rockcycle system – Construction Waste	CHAN 2.1.1	Reduction of construction site waste at source
	CHAN 2.2.1	Optimization of the collection, sorting and grouping of construction waste
	DECH 3.1.1	Overall % of construction site waste that will be recovered (excluding soil)
	DECH 3.1.2	% of construction site waste recovered as material (Reuse without guarantee of site and use, recycling, regeneration, excluding soil)
Rockcycle system – Demolition waste	ADAP 2.2.6	Arrangements made on the envelope
	ADAP 2.2.9	Independence of the 4 layers (structure, envelope, systems, interior fittings)
	ADAP 2.2.10	Dismantability of the building at the end of its life and more resource-efficient design
Environmental Product Declaration (EPD)	ACV 1.2.1	Analysis and processing of one or more environmental indicators
Emission classification	QAIR 1.2.1	Indoor air quality performance
Safety sheet	QAIR 1.2.1	Indoor air quality performance
Declaration of Performance (DoP)	CARB 1.1.1	CO2 emissions during the building use phase
	ENER 1.1.1	Primary energy consumption - unit: kWhPE/m² year
	HYGR 1.1.3	Performance in hygrothermal comfort
	HYGR 2.1.6	Thermal comfort
	ACOU 2.1.1	Acoustic insulation from external airborne noise (DnT,A,tr)
	ACOU 2.1.4	Noise from technical equipment (LnAT)
	ACCL 1.1.1	Measures and arrangements taken to manage natural risks due to climate change
ISO 14001-certification	SMR 4.2.3	Establishment of contracts consistent with the applicant's responsible purchasing policy
Supplier declaration: Recycled content (See page 54)	DEVT 2.2.1	Feasibility study for reuse
	DEVT 2.2.2	Reuse

If you are missing any information, please reach out to Rockpanel Technical Service (info@rockpanel.fr), who will seek to guide you to the required information.

How Rockpanel can contribute to HQE across themes and criteria

HQE Categories

RESPONSIBLE MANAGEMENT	
Governance	
SMR 4.2.3	**Establishment of contracts consistent with the applicant's responsible purchasing policy** The production of Rockpanel is certified under ISO 14001. The supplier of basalt is also ISO 14001 certified. Additionally, all suppliers for Rockpanel must sign up for the Code of Conduct for suppliers for ROCKWOOL Group. Rockpanel exclusively uses green electricity in all its factories and office buildings. Production waste is fully recycled, and up to 50% of the raw materials used in the facade panels are recycled materials. Rockpanel also uses secondary materials from other industries and reduces therefore the amount of waste going to landfills as well as the use of virgin raw materials. The average recycled content in 2022 was 35 percent.
Construction site	
CHAN 2.1.1	**Reduction of construction site waste at source** The unique circular, Rockcycle return scheme, secures that all surplus stone wool material can be returned to the nearest ROCKWOOL facility, where it will be recycled into new stone wool material. The panels are light weight, easy to install and the panels can be adjusted on site. This reduces construction waste. For larger projects customized dimensions can be produced resulting in less waste on the job site.
CHAN 2.2.1	**Optimization of the collection, sorting and grouping of construction waste** Rockpanel can take back their products when the building is demolished or refurbished and uses the recycled materials in the production of new Rockpanel or other stone wool products. Rockpanel facade systems can be easily and completely dismantled and split into clean and fully recyclable parts.
CHAN 3.2.1	**Limitations of noise and vibration pollution** For larger projects customized Rockpanel dimensions can be produced resulting in less adjustments, and thus noise, on site.

Adaptability	
ADAP 2.2.6	**Arrangements made on the envelope** Rockpanel facade systems can be easily and completely dismantled. The boards can be reused directly on site or can be split into clean and fully recyclable parts for reuse offsite. Rockpanel facade cladding is a fully recyclable product. Rockpanel can take back their products when the building is demolished or refurbished and uses the recycled materials in the production of new Rockpanel and other stone wool products. Rockpanel facade systems can be easily and completely dismantled. The boards can be reused directly on site or can be split into clean and fully recyclable parts for reuse offsite.
ADAP 2.2.9	**Independence of the 4 layers (structure, envelope, systems, interior fittings)** Rockpanel facade systems can be easily and completely dismantled. The boards can be reused directly on site or can be split into clean and fully recyclable parts for reuse offsite. Rockpanel facade cladding is a fully recyclable product. Rockpanel can take back their products when the building is demolished or refurbished and uses the recycled materials in the production of new Rockpanel and other stone wool products. Rockpanel facade systems can be easily and completely dismantled. The boards can be reused directly on site or can be split into clean and fully recyclable parts for reuse offsite.
ADAP 2.2.10	**Dismantlability of the building at the end of its life and more resource-efficient design** Rockpanel facade systems can be easily and completely dismantled. The boards can be reused directly on site or can be split into clean and fully recyclable parts for reuse offsite. Rockpanel facade cladding is a fully recyclable product. Rockpanel can take back their products when the building is demolished or refurbished and uses the recycled materials in the production of new Rockpanel and other stone wool products. Rockpanel facade systems can be easily and completely dismantled. The boards can be reused directly on site or can be split into clean and fully recyclable parts for reuse offsite.

QUALITY OF LIFE	
Indoor air quality	
QAIR 1.2.1	**Indoor air quality performance** Rockpanel products contain no substances found on the Authorization List – Annex XIV, the Restriction list – Annex XVII and the SVHC candidate list (reference to SDS). Rockpanel products are certified low emission according to Air à l'intérieur des bâtiments (FDES): A+. Rockpanel products are compliant with the requirements on emissions and are certified with: - European Technical Assessment (ETA) - Nordic Ecolabel (can be used for Svan certified buildings) - BRE Environmental Profiles A+ - BvB registration - SundaHus registration - M1 classification on Rockpanel Natural and Colours - Air à l'intérieur des bâtiments (FDES): A+
Hygrothermal comfort	
HYGR 1.1.3	**Performance in hygrothermal comfort** With a Rockpanel ventilated facade optimal thermal comfort can be achieved with limited thickness compared to alternative facades. The cladding protects the building, and the natural ventilation creates a healthy indoor climate.
HYGR 2.1.6	**Thermal comfort** With a Rockpanel ventilated facade optimal thermal comfort can be achieved with limited thickness compared to alternative facades. The cladding protects the building, and the natural ventilation creates a healthy indoor climate.
Acoustics	
ACOU 2.1.1	**Acoustic insulation from external airborne noise (DnT,A,tr)** The acoustic performance of Rockpanel facades is excellent as the ventilated facade acts as a sound barrier. The sound insulation values may vary depending on the insulation used behind the Rockpanel facade in each project, but generally, it provides effective noise reduction and sound insulation.
ACOU 2.1.4	**Noise from technical equipment (LnAT)** The acoustic performance of Rockpanel facades is excellent as the ventilated facade acts as a sound barrier. The sound insulation values may vary depending on the insulation used behind the Rockpanel facade in each project, but generally, it provides effective noise reduction and sound insulation.

ENVIRONMENTAL RESPECT	
Waste	
DECH 3.1.1	**Overall % of construction site waste that will be recovered (excluding soil)** Rockpanel can take back their products when the building is demolished or refurbished and uses the recycled materials in the production of new Rockpanel or other stone wool products. Rockpanel facade systems can be easily and completely dismantled and split into clean and fully recyclable parts.
DECH 3.1.2	**% of construction site waste recovered as material (Reuse without guarantee)** of site and use, recycling, regeneration, excluding soil) Rockpanel can take back their products when the building is demolished or refurbished and uses the recycled materials in the production of new Rockpanel or other stone wool products. Rockpanel facade systems can be easily and completely dismantled and split into clean and fully recyclable parts.
Adaptation to climate change	
ACCL1.1.1	**Measures and arrangements taken to manage natural risks due to climate change** Rockpanel boards have a four-layer water-based coating that protects against UV radiation, preserves colours, and requires mininmal cleaning and maintenance. The ProtectPlus layer adds even more UV resistance and anti-graffiti properties. Rockpanel facade panels are not affected by temperature, fluctuations, moisture or rain. The panels keep the dimensions under all circumstances. Rockpanel boards are made of highly compressed stone wool fibres from the natural material basalt, a volcanic rock that can withstand extremely high temperatures by nature.
Life Cycle Analysis	
ACV 1.2.1	**Analysis and processing of one or more environmental indicators** Rockpanel 3rd party verified product specific EPD is available via Link. The current EPD is made according to European standard EN 15804:2012-04+A1 2013 and cover the full life cycle from cradle to grave (A1-A5, C1-C4 and D). The new EPD according to standard EN 15804+A2:2019 will be released in 2024. The environmental impact of Rockpanel cladding panels is significantly lower, with a minimum of 15% reduction when compared to natural stone slab facades (sourced outside Europe). It's important to note that LCA results may differ based on the unique requirements of each project. Rockpanel boards have an officially confirmed lifetime (ETA) of 50 years.

ECONOMIC PERFORMANCE	
Life Cycle Costing	
COUT 2.2.2	**Surfaces of at least 4 families of the envelope easy to maintain** Rockpanel boards can contribute to a broad range of sustainability objectives. The Rockpanel facade system is highly durable and requires low maintenance throughout its long lifespan. Rockpanel products come with a surface coating that makes them easy to maintain. The manufacturer recommends cleaning once a year with cleaning agents without solvents.
COUT 4.1.2	**Basic overall cost analysis of the entire building or operating costs of the perimeter** Rockpanel is a durable product that will continue to maintain low energy consumption throughout the lifespan of the building. The natural use of resources such as stone and waterborne coatings makes the product robust and durable for a long time. Rockpanel is not sensitive to moisture and is UV-resistant, which prevents both thermal expansion and fading of colours. The panels are low maintenance. With the ProtectPlus layer the panels have an extra protection (anti-graffiti) and self-cleaning properties. Rockpanel boards have an officially confirmed lifetime (ETA) of 50 years.
Local economy	
DEVT 2.2.1	**Feasibility study for reuse** Rockpanel is part of the Rockcycle schemes in all countries except UK. The return service is both available for materials obtained through demolition and off-cuts for construction. The recycled materials are used in the production of new Rockpanel products. Rockpanel facade cladding is a fully recyclable product. Rockpanel can take back their products when the building is demolished or refurbished and uses the recycled materials in the production of new Rockpanel and other stone wool products. Rockpanel facade systems can be easily and completely dismantled. The boards can be reused directly on site or can be split into clean and fully recyclable parts for reuse offsite.

DEVT 2.2.2	**Reuse** Rockpanel is part of the Rockcycle schemes in all countries except the UK. The return service is both available for materials obtained through demolition and off-cuts during construction. The recycled materials are used for the production of new Rockpanel products. Rockpanel facade cladding is a fully recyclable product. Rockpanel can take back their products when the building is demolished or refurbished and uses the recycled materials in the production of new Rockpanel and other stone wool products. Rockpanel facade systems can be easily and completely dismantled. The boards can be reused directly on site or can be split into clean and fully recyclable parts for reuse offsite.

LEED v4.1 BUILDING DESIGN AND CONSTRUCTION certification

The Leadership in Energy and Environmental Design (LEED) system is the most adopted green building rating system worldwide. With applicability to almost all building categories, it provides a framework for constructing eco-friendly buildings that are healthy, energy-efficient, and cost-effective, resulting in environmental, social, and governance advantages.

LEED, which was created by USGBC in 1998, has expanded globally and counts for over 100.000 certified buildings today in nearly 190 countries. The system is holistic that doesn't simply focus on one building element, such as energy, water or health, rather it looks at the bigger picture: factoring in all critical elements that work together to create the best building possible. The goal of LEED is to create better buildings that reduce impacts to the environment and climate, protect water resources and ecosystems and enhance human health.

Relevant documentation

To support your documentation requirements, Rockpanel has collected all available sustainability documentation with a link for direct download as full packages or a single file.

Documentation for download	LEED v4.1 BD+C credits	
Recycling: Construction site returns	MR	Construction and Demolition Waste Management
	MR	Sourcing of Raw Materials
Recycling: Demolition and renovation returns	MR	Construction and Demolition Waste Management
	MR	Sourcing of Raw Materials
Environmental Product declaration (EPD)	EA	Optimize Energy Performance
	MR	Building Life-Cycle Impact Reduction
	MR	Environmental Product Declarations
Product health – Emissions certificates	MR	Low-Emitting Materials
Product health – Ingredients	MR	Material Ingredients
Safety Datasheets	MR	Material Ingredients
Declaration of Performance (DoP)	EA	Minimum Energy Performance
	EA	Optimize Energy Performance
	EQ	Thermal Comfort
	EQ	Acoustic Performance
ISO 14001 certification	MR	Sourcing of Raw Materials
Manuf. Declaration: Recycled content (See page 54)	MR	Sourcing of Raw Materials
Cradle to Cradle certified	MR	Material Ingredients

If you are missing any information, please reach out Rockpanel technical service (info@rockpanel.nl), who will seek to guide you to the required information.

How Rockpanel can contribute to LEED v4.1 BD+C credits

LEED BD+C covers new construction or major renovations within the following segments:

- New Construction and Major Renovation
- Core and Shell Development
- Schools
- Retail
- Data Centres
- Warehouses and Distribution Centres
- Hospitality
- Healthcare
- Applicability of credits and points will vary across segments.

LEED v4.1 credits and where Rockpanel products can support		**Available points**
INTEGRATIVE PROCESS		
Integrative Process	Rockpanel boards can contribute to a broad range of sustainability objectives. The Rockpanel facade system is highly durable and requires low maintenance throughout its long lifespan. Additionally, the environmental impact of Rockpanel is declared with 3rd party verified product-specific EPD according to the European standard EN 15804:2012-04+A1 2013, covering the full lifecycle from cradle to grave (A1-A5, C1-C4 and D). The new EPD according to standard EN 15804+A2:2019 will be released in 2024.	1
ENERGY AND ATMOSPHERE		
Optimize Energy Performance	Rockpanel panels applied in ventilated facade systems boast excellent lambda values, which make them an ideal choice for ensuring optimal thermal comfort in any building. This, in turn, leads to significantly reduced operational energy requirements.	1-20
MATERIALS AND RESOURCES		
Building Life-Cycle Impact Reduction	The environmental impact of Rockpanel cladding panels is significantly lower, with a minimum of 15% reduction when compared to natural stone slab facades (sourced outside Europe). It's important to note that LCA results may differ based on the unique requirements of each project. Rockpanel boards have an officially confirmed lifetime (ETA) of 50 years.	1-6
Environmental Product Declarations	The environmental impact of Rockpanel is declared with a 3rd party verified product-specific EPD according to the European standard EN 15804:2012-04+A1 2013, covering the full lifecycle from cradle to grave (A1-A5, C1-C4 and D). The new EPD according to standard EN 15804+A2:2019 will be released in 2024.	1-2
Sourcing Of Raw Materials	Rockpanel operates a circular extended manufacturer responsibility program whereby all returned material will be recycled into new Rockpanel and stone wool products. The average Rockpanel product contains up to 50% recycled content, of which approximately 35% is content is reclaimed pre-consumer and around 8% is post-consumer including third party material. Rockpanel products are produced in Roermond, Netherlands. The fibres are sourced from the ROCKWOOL plant in Roermond and all other raw materials are sourced from Europe as well. The production of Rockpanel is certified under ISO 14001. The supplier of basalt is also ISO 14001 certified. Additionally, all suppliers for Rockpanel must sign up for the Code of Conduct for suppliers for ROCKWOOL Group.	1-2
Material Ingredients	Rockpanel Colours and Natural contains no substances found on the Authorization List – Annex XIV, the Restriction list – Annex XVII and the SVHC candidate list (reference to SDS).	1-2

Construction and demolition waste management	Rockpanel is part of the Rockcycle schemes in all countries except the UK. The return service is both available for materials obtained through demolition and off-cuts for construction. The recycled materials are used in the production of new Rockpanel products and other stone wool products. Rockpanel facade systems can be easily and completely dismantled. The boards can be reused directly on site or can be split into clean and fully recyclable parts for reuse offsite.	1-2
DOOR ENVIRONMENTAL QUALITY		
Minimum Acoustic Performance	Rockpanel facade has very good sound characteristics as the ventilated facade works as sound protection. Specific sound values depend on the project specific insulation behind the cladding.	Prerequisite
Low-Emitting Materials	Rockpanel Colours and Natural products are compliant with the requirements on emissions and are certified with: - European Technical Assessment (ETA) - Nordic Ecolabel (can be used for Svan certified buildings) - BRE Environmental Profiles A+ - BvB registration - SundaHus registration - M1 classification on Rockpanel Natural and Colours - Air à l'intérieur des bâtiments (FDES): A+	1-3

MILJÖBYGGNAD certification

The Swedish environmental building certification investigates three categories to assess a building environmental profile: energy, indoor thermal comfort, and materials. The environmental characteristics of the building will determine the final grade of certification. A building achieves grades based on its performance in the subcategories: Energy, Health & Well-being, building materials, water use, pollution, waste, management, biodiversity and ecosystem services, circularity, and climate impact.

In Miljöbyggnad three grades can be achieved, Bronze, Silver, and Gold Bronze follows the Swedish building regulations standard, while the two other grades follow environmental practises beyond what the current building regulations demands. Gold can only be achieved if the building follows the best possible standard and practices. Miljöbyggnad 4.0 can help building owners to align with the EU-taxonomy and assures that the building follows the new demands set on the sustainable building in Europe.

Relevant documentation
To support your documentation requirements, Rockpanel has collected all available sustainability documentation with a link for direct download as full packages or a single file.

Documentation for download	**Miljöbyggnad sections and issues**	
Cradle to cradle certified	Indicator 13	Circular material streams
Cradle to cradle certified	Indicator 14	Waste handling
EPD (Environmental product declaration)	Indicator 4	Climate impact
Emission classification and Ecolabel	Indicator 9	Phasing out of hazardous substances
Declaration of Performance (DoP)	Indicator 1	Heat output requirements
	Indicator 3	Energy use
	Indicator 6	Noise
	Indicator 7	Thermal climate (Winter)
	Indicator 8	Thermal climate (Summer)
Supplier declaration: Recycled content (See page 58)	Indicator 13	Circular material flows
Sundahus validation	Indicator 15	Logbook with building materials

If you are missing any information, please reach out to Rockpanel Technical Service (info@rockpanel.se), who will seek to guide you to the required information.

How Rockpanel can contribute to Miljöbyggnad indicators

Miljöbyggnad indicators where Rockpanel can support achievement of credits

INDICAOR	
1	**Värmeeffektbehov (Heat effect requirements)** Rockpanel assures a low thermal conductivity (0.37-0.55 W/mK) depending on the product.
3	**Energianvändning (Energy use)** Rockpanel facade systems boast excellent lambda values, which make them an ideal choice for ensuring optimal thermal comfort in any building. This, in turn, leads to significantly reduced operational energy requirements.
4	**KLIMATPÅVERKAN (Climate impact)** Rockpanel 3rd party verified product specific EPD is available via Link. The current EPD is made according to European standard EN 15804:2012-04+A1 2013 and covers the full life cycle from cradle to grave (A1-A5, C1-C4 and D). A new EPD according to standard EN 15804+A2:2019 will be released in 2024. The environmental impact of Rockpanel cladding panels is significantly lower, with a minimum of 15% reduction when compared to natural stone slab facades (sourced outside Europe). It's important to note that LCA results may differ based on the unique requirements of each project. Rockpanel boards have an officially confirmed lifetime (ETA) of 50 years.
6	**LJUD (Noise)** The acoustic performance of Rockpanel facades is excellent as the ventilated facade acts as a sound barrier. The sound values may vary depending on the insulation used behind the Rockpanel facade in each project, but generally, it provides effective noise reduction and sound insulation. The density varies between 1050-1250 kg/m³.
7 & 8	**TERMISKT KLIMAT vinter & sommar (Thermal climate winter & summer)** With a Rockpanel ventilated facade optimal thermal comfort can be achieved with limited thickness compared to alternative facades. The cladding protects the building, and the natural ventilation creates a healthy indoor climate.
9	**UTFASNING AV FARLIGA ÄMNEN (Out-phasing hazardous substances)** Rockpanel is safe to work and live with and fulfils EU REACH regulation as well as the Swedish PRIO criteria and the ChemSecs SIN list for Hormone disturbing substances. The product emits 0.0105 mg/m³ formaldehyde.
13	**CIRKULÄRA MATERIALFLÖDEN (Circular material flows)** The average Rockpanel product contains up to 50% recycled content, app. 35% of which is reclaimed pre-consumer content and around 8% is post-consumer content including third-party material.
14	**AVFALLSHANTERING (Waste handling)** Rockpanel facade cladding is a fully recyclable product. Rockpanel can take back their products when the building is demolished or refurbished and uses the recycled materials in the production of new Rockpanel or other stone wool products. Rockpanel facade systems can be easily and completely dismantled and split into clean and fully recyclable parts. Rockpanel also uses secondary materials from other industries and reduces therefore the amount of waste going to landfills as well as the use of virgin raw materials. The average recycled content in 2022 was 35 percent.
15	**LOGGBOK MED BYGGVAROR (Construction materials logbook)** ROCKWOOL eBVDs are available via www.ebvd.org Rockpanel facade system is available in the Sundahus catalogue.

Recycled content
The average Rockpanel product contains up to 50% recycled content, of which approximately 35% is reclaimed pre-consumer content and around 8% is post-consumer content including third party material.

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.

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CERTIFIED cradle to cradle SILVER

Products:
Rockpanel Colours
Rockpanel Natural

RWSB UK 202405 / UK / version 1.0