



When your creativity breaks
through nature's barriers

ROCKPANEL® Stones

Rockpanel®
a ROCKWOOL company

CREATE AND PROTECT®

Rear-ventilated façades – unlimited options for advanced architectural design

Rear-ventilated façade systems are favored by many due to their superior physical characteristics and excellent sustainable credentials – and it reflects their commitment to sustainable, environmentally friendly construction. At the same time, choosing a curtained, rear-ventilated façade can also considerably expand your creative options.

Rear-ventilated façades are an ideal option for renovating older buildings. They provide a simple, economical solution for common issues such as uneven walls or loose layers of plaster. Thanks to the great variety of materials, there are virtually no limits to your creativity. You can choose between natural stone panels, bricks, wood, metal sheets, plastics, fibre-cement plates or mineral panel materials.

From the planning stage onwards, you can draw inspiration from a vast choice of materials, surface patterns and colours. In line with your ideas and expectations, various materials and colours may be combined to give your construction that special and individual look.

Opting for a curtained, rear-ventilated façade is a wise decision in every respect – providing you with virtually unlimited design options. In fact, even in the concept stage of a new construction project, this superior choice may well influence the principal architectural idea.



Challenges to the curtained, rear-ventilated façade: stone – a heavyweight natural substance

The strength, robustness and natural aesthetic of stone make it a popular façade cladding option. Whether it be marble, shale, quartzite, granite, limestone or sandstone, these intrinsic characteristics always shine through. However, the weight of stone façades can pose considerable construction challenges, leading to significant cost increases and, in the case of high buildings, even expanding static limits.

Natural stone must be carefully processed to enable it to be mounted and secured onto a supporting structure with methods such as grout fixing, anchor pins, slot mounting and undercut anchors. The shear loads on the horizontal anchoring in the sub construction are enormous, and any failure in the mounting process will have far-reaching consequences – e.g. falling reveal panels, breaking anchor pins and concrete cone failures, to name but a few.

The fact that – at the planning stage – there is usually no data available on the bending strength and load capacity of the mounting structure, is detrimental for façades made of these natural resources. The same is true for concrete blocks, making it more complicated to optimise the construction. During the pre-implementation planning phase, the bending strength, bending stiffness and bearing capacity of the chosen mounting device must be determined by means of trials which entail considerable expense. Frequently, it can only be ascertained at a later stage whether the plate thickness will be sufficient. At first the strength class of the concrete should be defined for planning purposes. However, a specific type of attachment has to be included in the individual evaluation of the respective panel size and thickness. As beautiful as natural stone may look, the inherent design challenges it poses can make it difficult and costly to specify.

A new, convenient solution: when stone suddenly becomes light and bendable

The ROCKPANEL Stones design range offers a truly innovative solution. With three surface designs ("Mineral", "Basalt" and "Concrete") and eleven colour variations, the panels embody the natural beauty of stone. Meanwhile, their pressed rock wool structure helps to resolve issues of statics, building physics, sustainability, processing and economic efficiency.

On the visible side, the surface of ROCKPANEL Stones is coated with a four-layered, water-based polymer emulsion. To preserve the stunningly authentic mineral, basalt or concrete impression of these surfaces, they also receive a standard "ProtectPlus" protective coating.



Mineral Designs



Mineral Chalk



Mineral Silver



Mineral Graphite



Mineral Clay

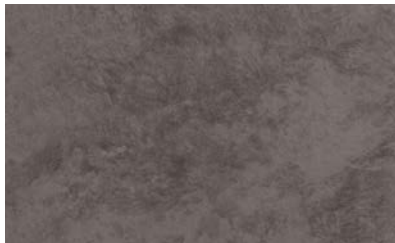


Mineral Rust

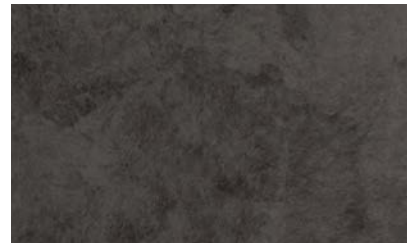
Basalt Designs



Basalt Zinc

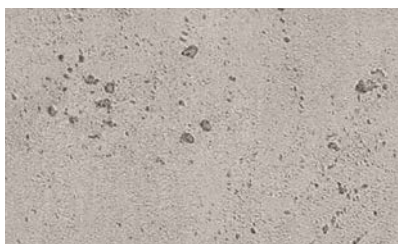


Basalt Iron



Basalt Anthracite

Concrete Designs



Concrete Ash



Concrete Platinum



Concrete Sand

Optimum material advantages for greater architectural freedom

Lightweight – easy to mount

ROCKPANEL Stones façade panels fall into the category of lightweight façade panels (such as fibre cement panels, aluminium composite panels, HPL panels, ceramic panels, sheet metal, composite elements etc.). Especially with regards to static criteria, they are ideally suited for cladding façades of high structures. The weight of ROCKPANEL Stones façade panels with a thickness of 8 mm is only 8.4 kg/m².

In contrast to the complex sub-constructions needed for natural stone, ROCKPANEL Stones panels are mechanically attached to a timber or aluminium construction with screws, nails or pop rivets. Alternatively, they can be bonded with a special adhesive. Applying the panels is very simple: the wooden sub-construction must be dry, according to EN 335, and comply at minimum with strength class C18 according to EN 338. Furthermore, a minimum thickness of 28 mm must always be ensured. When mounted to an aluminium sub-construction, the profile quality must comply with EN 755-2 AW 6060, the minimum thickness being 1.5 mm. ROCKPANEL Stones is highly resistant to moisture and doesn't react to temperature changes. This means the panels feature perfect dimensional stability and retain their shape over time. This makes them easy to install in almost all conditions.

Easy to work with

While the precise cutting of natural stone panels and the casting gauges for concrete areas must be clearly defined upfront, the size of ROCKPANEL Stones panels can be easily adapted directly at the building site. They can be simply processed with conventional tools for wood machining. The material can be sawed, screwed and nailed. This simple processing enables you to freely play with unusual recesses and fancy detailed solutions which would require great efforts when dealing with natural stone or concrete.

How to bend stone

The ability to bend the panels is a unique highlight of ROCKPANEL Stones. It makes it possible to realise elegantly curved surfaces. Try that with natural stone or concrete – it would require an extremely high processing overhead. This amazing property of ROCKPANEL Stones allows architects to re-interpret their “stone” façade, allowing the inclusion of curves and other organic-looking forms in their initial design sketches.

Weather-resistant and easy to clean

ROCKPANEL Stones façade panels are weatherproof – another aspect that distinguishes them from genuine natural stone or concrete which are subject to corrosion. What's more, maintenance is extremely easy: the panel surface can be quickly cleaned with pure water or by adding a common car shampoo, while natural stone and concrete must be elaborately cleaned from moss and other pollution caused by adverse weather conditions. The ROCKPANEL coating is self-cleaning and UV-resistant and even offers graffiti protection.

Fire protection included

Just like natural stone and concrete, ROCKPANEL Stones panels are also fully fire-protected because the material qualities are almost 100% mineral. The "Durable" and "Xtreme" panel versions comply with the European building material class B-s2, d0 (EN 13501-1). "FS-Xtra"-type panels – designed to be attached to a steel or aluminium sub-construction – even meet the standards of European building material class A2-s1, d0. This complies with the highest requirements of fire resistance in façades for residential and commercial constructions.

Long-lasting and environmentally sustainable

Often the decision to choose of a curtained, rear-ventilated façade made of natural stone or concrete is based on the durability of the material. ROCKPANEL Stones façade panels have a confirmed lifespan of 60 years. But longevity is not the only contribution to the ecological sustainability of ROCKPANEL Stones façade panels – they also consist of the fully recyclable natural raw material basalt and are almost completely reusable. Aside from the fact that a curtained, rear-ventilated façade – together with a corresponding mineral wool insulation – considerably enhances a building's energy efficiency, ROCKPANEL Stones façade panels feature an excellent environmental balance in terms of production, assembly, application and recycling. This is confirmed by the British research and certification centre (BRE) which rates them A+/A. This audit rates ROCKPANEL products as having one of the best environmental footprints in their category.



Almost 100 %
reusable



Confirmed lifespan
of 60 years

ROCKPANEL Stones – a true alternative to a rear-ventilated façade made of natural stone or concrete

ROCKPANEL Stones façade panels ...

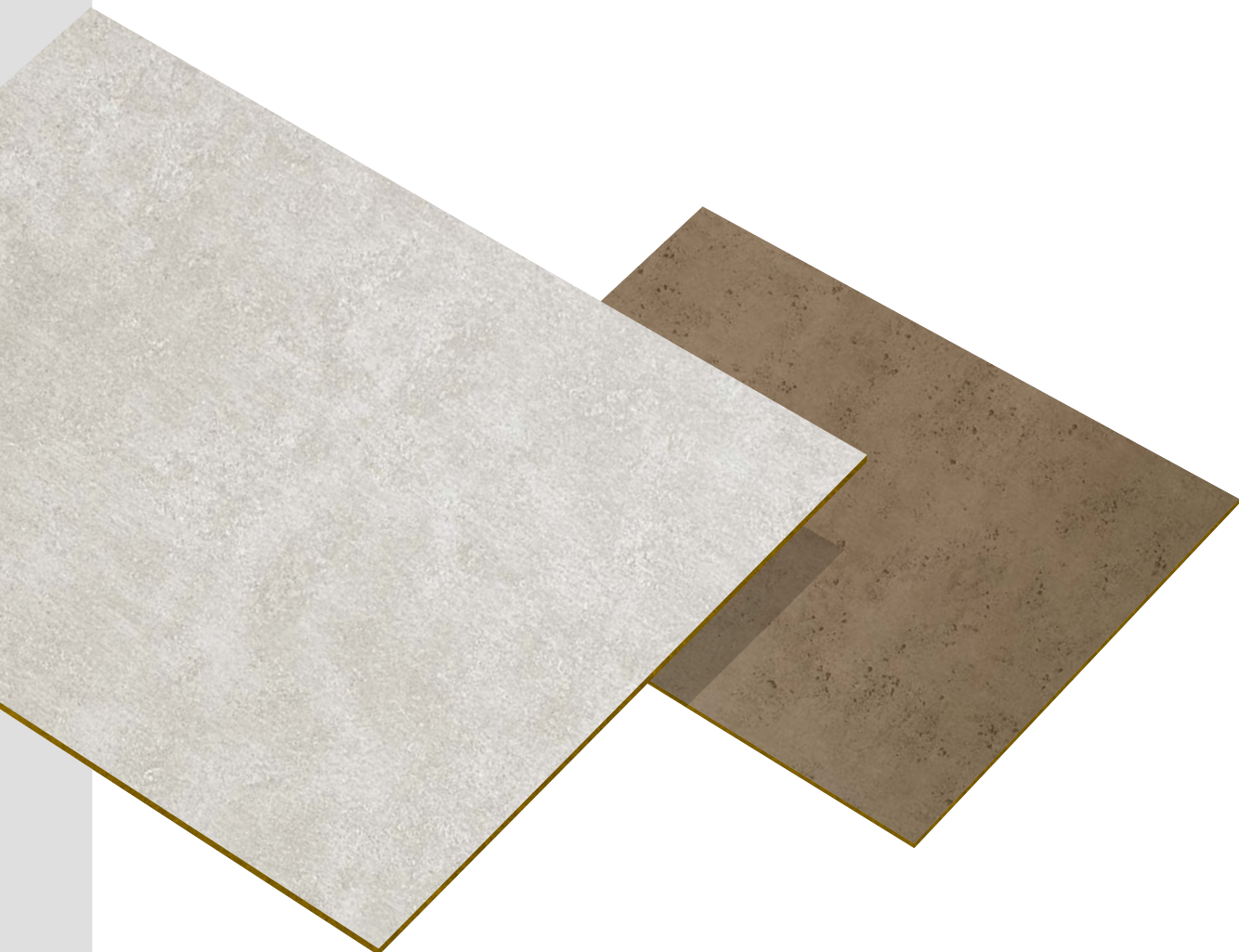
- Are available in three design lines with a stunningly authentic stone or concrete aesthetic, in natural colour variations that don't exist outside of this design range.
- Can be bent effortlessly, enabling round and organically shaped façades with the appearance of stone.
- Require – in contrast to rear-ventilated façades made of natural stone or concrete – a simple wooden or aluminium sub-construction which makes them extremely economical.
- Due to their lower own weight there will be less load on the sub-construction as with massive façade panels.
- Can be processed with conventional tools and accurately adapted on site – without lengthy preparation. This is not readily possible with natural stone or concrete.
- Are weatherproof and easy to clean. They are less subject to environmental attacks of a chemical nature than natural stone and concrete (e.g. no concrete erosion).
- Comply – in the “FS-Xtra” version – with the highest requirements of preventive constructional fire protection.
- Are extremely long-lasting, featuring a certified lifespan of 60 years.
- Consist of almost 100 % natural, recyclable material making them environmentally friendly.

Practically dimensioned, easy to work with and extremely versatile

Whether it's for private housing or a commercial construction, renovation or a new building: when it comes to implementing energy-efficient construction projects with a curtained rear-ventilated façade that shall look like stone, ROCKPANEL Stones offers a visually striking, economically interesting and ecologically sustainable alternative to conventional natural stone or concrete.

Dimensions

Panel thickness	Durable: 8 mm
	Xtreme: 8 mm (starting from 100 m ²)
	FS-Xtra: 9 mm (starting from 100 m ²)
Panel width:	1200 mm (1250 mm starting from 100 m ²)
Panel length:	3050 mm (2500 mm starting from 100 m ²)



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