

Product description

Rockpanel boards for external cladding have been developed for fast, user-friendly and aesthetic facade finishing, soffits, fascias and detailing. The boards are as workable as wood and as durable as stone. The boards are resistant to weather, temperature and UV, fire-safe, recyclable and require very low-maintenance. The Rockpanel Chameleon range is finished with a unique crystal layer which brings an extraordinary and surprising perception to the colour of your building. Depending on the angle from which it is viewed and the effect of the sunlight, the colour of the panels change. Rockpanel Chameleon is available across 4 different spectrums.

Application

Rockpanel board material is especially suited for ventilated construction, providing good building physics, high insulation values and therefore a healthy interior climate.

Rockpanel can be used in new construction and renovation:

- Façade and partly-cladded
- Soffits and fascias
- Detailing and roofline

Product advantages

Rockpanel board material has some unique features:

- edge finishing against moisture not needed
- low in maintenance
- light in weight
- can easily be cut to size on site
- does not require pre-drilling
- standard (durable) version suitable for curved sections
- dimensionally stable
- fire-safe
- recyclable
- not directional

Assortment

Rockpanel Chameleon can be supplied in several high-grade colours.

For the current range, please consult www.rockpanel.co.uk.

Extra Protection (ProtectPlus)

This transparent coating makes the boards self-cleaning so that dirt is washed away by rainwater. The coating also improves the boards' UV resistance, resulting in the period of colourfastness being extended further still. ProtectPlus is standard on Rockpanel Chameleon.

Properties

The board material is available in two different strengths

Durable: for general applications on facades and eaves.

Xtreme: for applications on facades where greater mechanical rigidity is required.

Dimensions and tolerances of board material

	Durable	Xtreme
Board length in mm*	3050	3050
Board width mm	1200	1200
Board thickness in mm	8	8
Length/width tolerance in mm	+2/-2	+2/-2
Thickness tolerance in mm	+0,5/-0,5	+0,5/-0,5
Diagonal tolerance in mm	≤ 4	≤ 4

* For different dimensions, contact Rockpanel for the possibilities.

Material properties

PROPERTY	VALUE		UNIT	STANDARD
MECHANICAL PROPERTIES				
	Durable	Xtreme		
Module of elasticity	4015	5260	N/mm ²	EN 310
Characteristic bending strength	≥ 27	≥ 30	N/mm ²	EN 310 and EN 1058 f _{os}
OPTICAL PROPERTIES				
Colour fastness, Chameleon	4-5 (3000 hours; xenon test)		greyscale	ISO 105 A02-93
FIRE EUROCLASS				
Fire Classification	B-s2-d0			EN 13501-1
PHYSICAL PROPERTIES				
	Durable	Xtreme		
Density nominal	1050	1200	kg/m ³	
Nominal area density	8,4	9,6	kg/m ²	
DIMENSIONAL VARIATION				
Linear expansion coefficient	11*10 ⁻³		mm/(m°K)	EN 438-2
Change in length due to moisture at 23°C/50% RH to 23°C/95% RH	0,302		mm/m (after 4 days)	
Vapour permeability S _d - At 23°C and 85% RH	3,5		m	EN-ISO 12572:2001
Water uptake via the sawn edge after 28 days: - At 20°C and 65% RH - At 2°C and 90% RH	< 1,3 < 0,2		% %	

Fire safety

Rockpanel board material is extensively tested and classified and is a fire-safe building material. Should a fire occur, with Rockpanel boards there is no risk of drop formation and the risk of fire spread is extremely slight.

Installation

Ventilated external-wall systems

Rockpanel board material is suitable for use in ventilated facades. In this type of facade, the outer facade is constructed as a cavity wall with an inner and outer layer, so that a ventilated space is created between the facade cladding and insulation.

■ Open facade

Here the use of water-draining sections is avoided, as a result of which some of the rainwater run-off runs into the cavity behind the cladding.

For open joints in a **wooden support structure**, the structure behind the vertical batten should be equipped with a vapour-permeable, water-repellent membrane, non-capillary and UV-resistant. The recommended space between the Rockpanel and the vapour-permeable, water-repellent membrane is at least 20 mm, but in practice it is usually the thickness of the battens, 28 or 34 mm

For an **aluminium support structure** Rockpanel advises a cavity depth here of at least 60 mm. The insulation should comply with EN 13162; for example, Rockwool with a density between 51 and 69/m³.

■ Closed facade

In this construction, the rainwater is diverted as much as possible to the outside of the cladding. The recommended cavity depth for a ventilated cavity is at least 20 mm, but in practice the thickness of the battens is often used, amounting to 28 mm or 34 mm.

Fixing

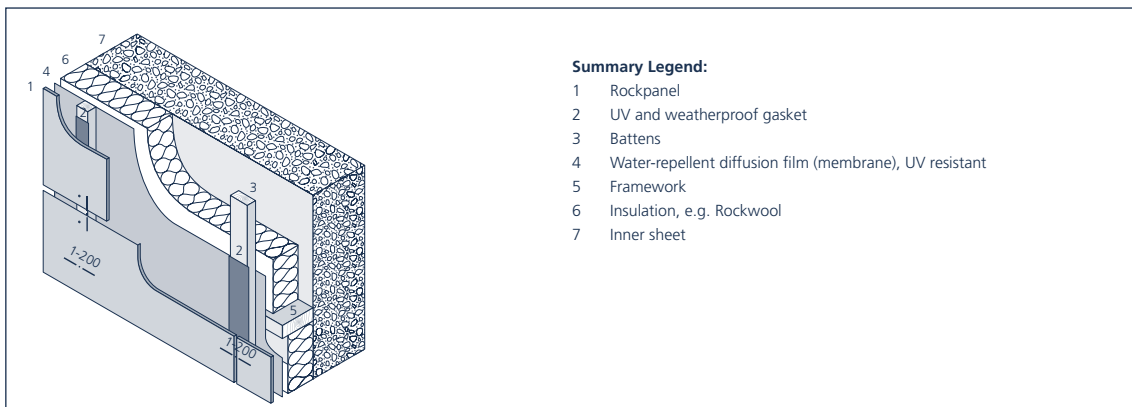
Rockpanel can be installed in several ways. This can both:

- Wood and aluminium
- Nails, screws or even glued

Rockpanel can be mechanically installed with nails or screws from Rockpanel or with other means of attachment complying with Rockpanel approval specifications.

Mechanical installation on wood

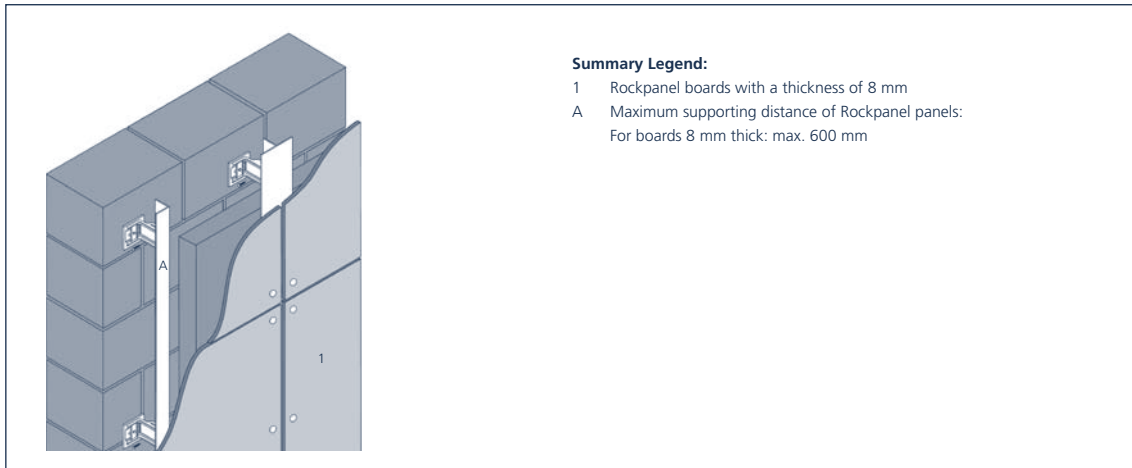
- Using 2.7/2.9 x 32 stainless steel ring shank nails (316 quality stainless steel). Can be installed with a synthetic hammer as well as a pneumatic hammer. Rockpanel advises to use blanc nails for Rockpanel Chameleon.
- Using 4,5 x 35 mm stainless steel torx screws (at least 316 quality stainless steel). Rockpanel advises to use blanc screws. If desired with the head in the colour that matches the board.



Mechanical installation on aluminium

- AP14-5 x 18-S aluminium flat-top pop rivets can be used to install Rockpanel on aluminium support structures.
EN AW-5019 material in compliance with EN 755-2. Rivet material number 1.4541, in compliance with EN 10088-3.

Take into account that the distortion of the aluminium support profiles is greater than that of the Rockpanel board material. By application of rivets, fixed points and moving points should be applied. The fixed points should be pre-drilled with $\varnothing 5,2$ mm and the moving points with $\varnothing 9$ mm. We advise to use a rivet spacer.



Adhesive installation on wood and/or aluminium structures

Adhesive installation of Rockpanel board material should be carried out according to the instructions of the supplier of the adhesive system and under his supervision and warranty conditions. Adhesive installation on a metal support structure or, in the case of wood, on a Rockpanel strip is a more durable implementation than direct adhesive installation on a wooden support structure. See the Rockpanel website for more information and an adhesive supplier with a suitable system.

Attachment distances

Rockpanel board material must be attached to the substructure with Rockpanel installation systems in the case of mechanical installation. In deciding on the substructure, take account of the following:

- the wind load experienced
- maximum attachment distances for the panels
- necessary provisions for ventilation
- the boards must be able to move
- legal requirements
- the height of the building

Consult the table to see the spacing between points of fastening applicable to mechanical fixing. Always contact Rockpanel in the event of situations that depart from the norm.

The following fixing pattern can be applied as the assumptions like basic windspeed, site -altitude, building height and so on fits to the project or are overestimated:

<p>United Kingdom Basic wind speed ≤ 23 m/s Site altitude < 50 m above sea level Building height ≤ 10 m Distance to the coast > 10 km Span over 2 fields (see drawing) Max permissible deflection 0,85%</p> <p>a_{r1}: 15 mm a_{r2}: 50 mm</p>			
	Span	a_m Intermediate support	a_r Edge support
8 mm			
Rockpanel Torx screw	600 mm	255 mm	470 mm
Rivet AP14-5 x 18-s	600 mm	340 mm	500 mm

Contact Rockpanel for further guidance if any of the pre-conditions above cannot be met.

Joins and board connections

Take account of the following in making joints and board connections.

- Rockpanel is dimensionally stable, and therefore resistant to changes in length and width. When constructing, keep in mind that other materials expand or contract or varying degrees compared to Rockpanel boards.
- Boards, assembly and building tolerances play an important role in the joint detail.
- Apply joint tape to the seams to protect the back construction against weather influences.
- Design joints > 5 mm, so that rainwater drops off, and is not hold by the capillary effect.

Handling

Sawing

When working with Rockpanel products, as a rule the same guidelines apply as if you were working with wood products.

- hand saw, for example a hardpoint hand saw
- circle saw, for example a fine-toothed tungsten carbide saw blade
- fretsaw, for example a fine-toothed metal saw blade or a tungsten grit saw blade

Drilling

The boards do not need to be pre-drilled before delivery and can be mechanically installed directly on the construction site. Depending on the structure, moving and fixed points must be dealt with.

Edge finishing

Rockpanel board material is insensitive to moisture. Finishing sawed edges and edge finishing are not needed. Chamfering is easy using a leftover Rockpanel strip to lightly sand the edge. The side edges can be painted for aesthetic reasons.

Storage

Rockpanel is insensitive to moisture. Nevertheless, it is recommended that the board material be stored dry, flat, frost-free and protected on a flat pallet. Never stack more than 2 pallets on top of each other. The boards should be raised for handling; it is not advisable to slide them over each other. Protective foam sheets should also be placed between the boards to protect the surface layer after, for example, machining.

Maintenance

Rockpanel board material is as durable as stone, resistant to temperature and weather influences, and therefore low-maintenance. It is recommended that the boards be maintained from time to time by cleaning them with water. The colours remain stable and the board material maintains its original freshness and appearance for a long time. If desired, the board material can be cleaned with, for example, a car shampoo or an all-purpose cleaner, diluted as indicated on the package.

Rockpanel Chameleon comes standard with the ProtectPlus finish. This transparent coating makes the boards self-cleaning, so that dirt is washed away by rainwater. In addition, the coating improves the UV resistance of the board, further extending the colourfastness.

Specifications and CAD drawings

Specifications and CAD drawings can be downloaded from www.rockpanel.co.uk.

Availability

Consult the dealer locator on www.rockpanel.co.uk for a Rockpanel distributor in your area.

Certification

■ **BBA Certified**

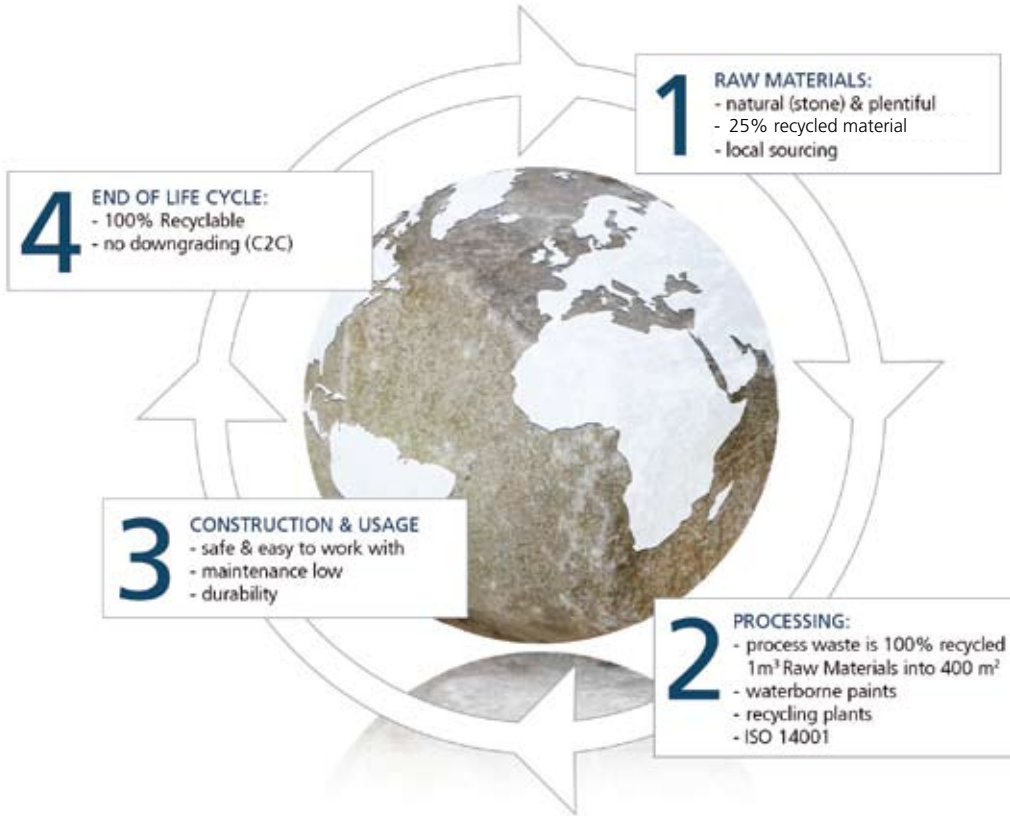
Rockpanel boards meet key safety standards for building and are BBA approved. Certificate 04/4168, second edition, relates to compressed and bound rock wool boards with a decorative coating on one side, for use as a back ventilated cladding panel system. This Agrément Certificate contains important data on durability, installation and compliance with Building Regulations, not just in England and Wales, but in Scotland and Northern Ireland, too. The certificate is available on www.rockpanel.co.uk.

■ **ETA certified**

Rockpanel Durable Version board material is also ETA certified and therefore bears the CE quality label. The certification means that the product complies with the very stringent European Assessment Directive. ETA-07/0141 "Rockpanel Durable 8 mm finish Colours". Documents are available on the Rockpanel website.

Sustainability

Rockpanel is a sustainable building material throughout the material's useful life.



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