

Product description

Rockpanel boards for external cladding have been developed for a user-friendly and aesthetically pleasing finishing of facades, soffits, fascias and detailing. The boards are as durable as stone and as easy to work as wood. The boards are resistant to weather, temperature and UV, and require very low maintenance. Give your outside wall a natural look with Rockpanel Woods. Rockpanel Woods is manufactured through a careful and innovative production process, so that repetition of wood grain patterns is not possible. Because of this the panels can be barely distinguished from real wood.

Application

Rockpanel boards are applied in ventilated constructions in a large range of projects in both refurbishment and new build projects:

Residential: houses and apartments

Non-residential: commercial, education, health and industrial

Typical application areas include:

- facade and partly-cladded
- soffits and fascias
- detailing and roofline

Product advantages

- cut edges do not need to be retreated
- dimensionally stable
- fire safe
- standard (durable) version suitable for shaped and curved applications
- 100% recyclable
- low in maintenance
- light in weight
- can easily be cut to size on-site
- does not require pre-drilling

Rockpanel Woods:

- workability and warm radiance of real wood combined with unrivalled durability of stone
- comes with ProtectPlus (self cleaning) top coat as standard
- no repetition of wood pattern

Properties

The board material is deliverable in two different strengths.

Durable: for use in regular facade and roofline applications.

Xtreme: for use when a greater degree of impact resistance is required, usually towards groundlevel.

Dimensions and tolerances of the boards:

	Durable	Xtreme
Panel length in mm*	3050	3050
Panel width mm*	1200	1200
Panel 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 sizes, please contact Rockpanel for the possibilities available.

Material properties

Properties	Value		Unit	Standard
Mechanical properties				
	Durable	Xtreme		
Modules of elasticity	4015	5260	N/mm ²	EN 310
Characteristic bending strenght	≥ 27	≥ 30	N/mm ²	EN 310 en EN 1058 f _{os}
Optical properties				
Colour stability Woods	4-5 (PP*)		Greyscales	ISO 105 A02
Fire Euroclass				
Classification**	B-s2-d0			EN 13501-1
Physical properties				
	Durable	Xtreme		
Density nominal	1050+150/-150	1200+150/-150	kg/m ³	
Nominal mass of surface	8,4	9,6	kg/m ²	
Dimensional stability				
- Dimensional stability	11*10 ⁻³		mm/(m ² K)	EN 438-2
- Dimensional stability length/width per 23°C/50% RF change 23°/95% RF	0,302		mm/m (after 4 days)	
Vapor transmission				
- 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	< 1,3		%	
- At 2° C and 90% RH	< 0,2		%	

* Rockpanel Woods standard with Protect Plus finishing.

** Depending on the bearing constructions in some case a sub classification of s1 can be reached. Contact Rockpanel for more information.

Fire safety

Rockpanel board material is subject to thorough testing and is a fire-safe building material. In the event of a fire the mineral wool structure of Rockpanel remains fully intact. There is absolutely no drop-formation and the risk of fire spreading is prevented.

Installation

Ventilated external-wall systems

Rockpanel products are applied in ventilated constructions. Typical of these kinds of facades is that the outer facade is being constructed as a cavity wall with an inner and an outer layer, resulting in a ventilated space between facade cladding and isolation. Two types of constructions are possible, i.e. with an open or a closed facade.

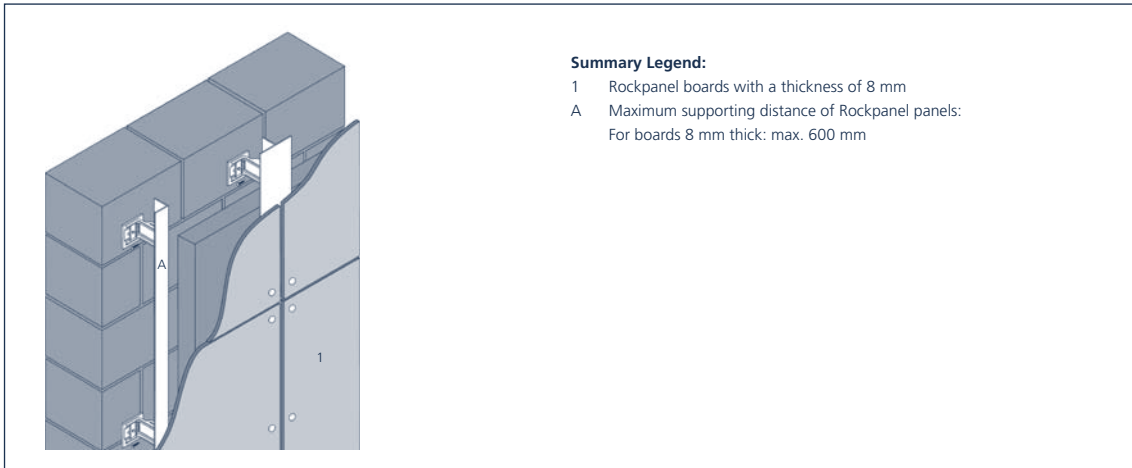
- **Open facade:** Here the use of water-draining sections is avoided, as a result of which some of the rainwater run-off runs into the cavity behind the cladding. Rockpanel recommends a cavity depth of at least 60 mm, by aluminium construction, by which the insulation should met the standard EN-13162, f.e. Rockwool with a density between 51 and 69 kg/m³. By open joints at a wooden construction, the construction behind the vertical batten should protected by a breathable membrane which is water repellend, non capicaly and UV resistance. The cavity behind Rockpanel and between the breathable membrane need to be at least 20 mm but common is the thickness of the battens which means a cavity of 28 mm or 34 mm.
- **Closed facade:** Here rainwater is drained off as much as possible on the outer side of the cladding. The recommended cavity depth for a ventilated cavity is min. 20 mm, but in practice they use the thickness of the timber battens what represents 28 mm or 34 mm.

Fixing: visible or invisible

Rockpanel can be fixed on wood and aluminium constructions, either mechanically or by means of an adhesive system.

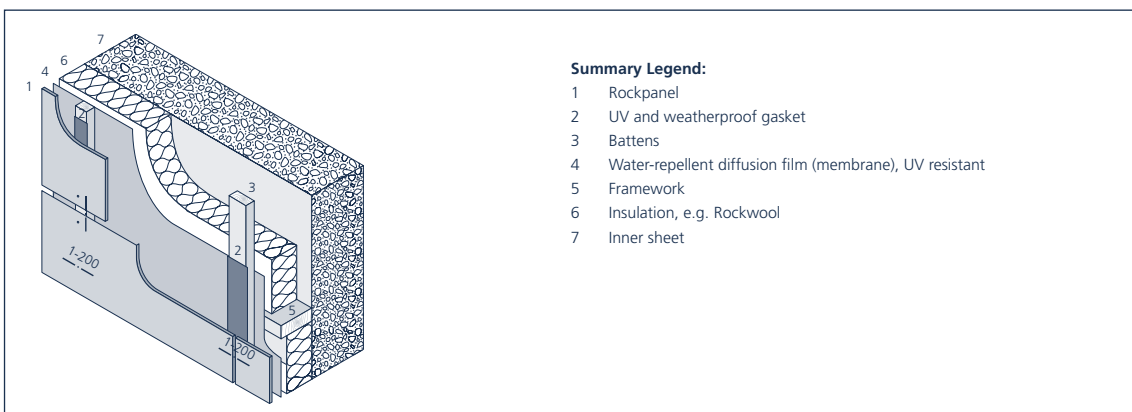
Mechanical fixing on aluminium

- For the mounting of Rockpanel on aluminium load-bearing sections, AP14-5 x 18-S flat-topped aluminium pop rivets can be used. Material EN-AW-5019 in conformity with EN 755-2. Material number rivet 1.4541, in conformity with EN 10088-3. Take into account here that the warping of the aluminium load-bearing sections is greater than that of the Rockpanel boards material.



Mechanical fixing on wood

- Using Rockpanel ring shank nails (stainless steel 316), 2,7/2,9 x 32 mm with the head in the same colour as the panel if required. Fixing can be done with a synthetic hammer or a pneumatic hammer. Nail heads in the same RAL colour combine perfectly with the RAL colour of the board material.
- Using Rockpanel torx screws (stainless steel 316) 4,5 x 35 mm, with the head in the same colour as the board if required. Pre-drilling is not needed.



Adhesive system

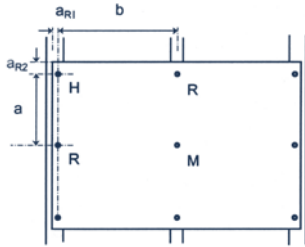
- Rockpanel can be fixed with various adhesive systems. Always contact the supplier of the adhesive system for technical approval and guarantee. In the approval it must be explicitly mentioned that the system is suitable for fixing of Rockpanel boards for external cladding. Visit Rockpanel's website for more information.

Distances between fastening points

When fixed mechanically Rockpanel boards must be assembled with above mentioned fixings on a suitable subframe (aluminium rail support or timber frame) and free of tension. When determining the subframe the following should be kept in mind:

- wind loading
- the maximum fixing centres for the boards
- the required ventilation provisions
- unimpeded movement of the boards
- legal local requirements

In the table below you will find the designloads for the strength of the fastener [N], the values are to both mechanical and non-mechanical fixing.



		Designloads - permissible pullover strength in N / position of the fixing		
		Location of the fastening, a_{R1} is the panel edge distance on timber batten		
	Maximum centre to centre distance fastenings mm	M: middle of the panel	R: edge of the panel $a_{R1} = 15$ mm	H: panelcorner $a_{R1}/a_{R2} = 15/50$ mm
Panel thickness	8 (a-b)	8	8	8
Adhesive (a)	n.a. 600	1 N/mm ¹		
Ring shank nail	400-600	190	190	130
Screw	600-600	330	180	85
Rivet	600-600	435	230	115

UK : Designloads including a safety factor of 3
[a] : Rockpanel Tack-S

Joints and board connections

The following guidelines apply when installing the boards:

- Rockpanel is dimensionally stable, and therefore resistant to changes in length and width. When constructing keep in mind that other materials expand or contract to varying degrees compared to Rockpanel boards.
- Boards, assembly and building tolerances play an important role in the joint detail. Take this into account.
- Apply joint tape to the seams to protect the back construction against weather influences.
- The joints should be such that sufficient ventilation and/or drainage is ensured in order to prevent damage as a result of retained moisture.

Workability

Sawing

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

- hand saw, e.g. a hardpoint hand saw
- circular saw, e.g. a fine-toothed hard metal saw blade
- fretsaw, e.g. a fine-toothed saw blade or a saw blade with tungsten granules

Drilling

Rockpanel board material does not require pre-drilling of over-sized fixing holes prior to installation on timber studs.

This means that work can be done in greater detail on the building site, making flawless and optimal finishing a simple matter. With rivets, fixed anchorages are advised to be drilled at 5.2 mm and a sliding attachment with 8 mm.

Pre-drilling can be done with a HSS-steeldriller.

Edge finishing

Rockpanel board material is resistant to the elements and does not delaminate or rot. Cut edges do not need to be retreated. Chamfering can be done easily by using a leftover strip of Rockpanel to lightly rub down the edge. The sides can be given a finishing coat of paint for aesthetic purposes.

Storage

Rockpanel is insensitive to moisture. Nevertheless it is recommended that the board material be stored on a flat pallet in dry, flat, frost-proof and protected conditions. Never stack more than two pallets on top of each other. The panels should be raised when being machined. The panels should not be slid over one another. Protective foam membranes should be placed between the sheets again to protect the surface layer, for example when the panels are stacked after having been sawn.

Maintenance

Rockpanel board material is as durable as stone and resistant to the effects of temperature and the weather, and therefore requires little maintenance. The colours remain stable and the board material retains its original appearance for a long time. If required, the board material can be cleaned using, for example, a car shampoo or an all-purpose cleaner, diluted in the manner recommended on the packaging.

Rockpanel Woods comes with the ProtectPlus finish as standard. This transparent coating makes the sheets 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 still further. For cleaning graffiti a special Rockpanel anti graffiti cleaner is available.

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.

Assortment

Rockpanel Woods can be supplied in several colours/designs. For the current Woods range, please consult www.rockpanel.co.uk.

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.



Published September 2009. This publication supersedes and replaces all previous publications. Subject to alterations. All data are intended to serve as general information about our products and their possible uses, and do not imply a guarantee that these products have certain properties. Therefore, no rights may be derived from the content of this publication. © 2009

Rockwool Rockpanel B.V. – Wern Tarw, Pencoed – Bridgend CF35 6NY

01-09-2009