Rockpanel®

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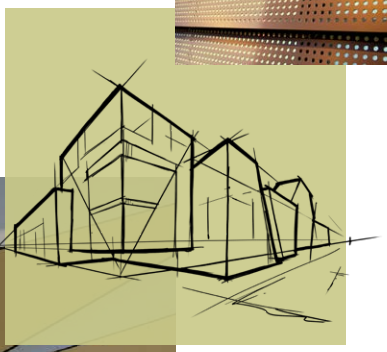
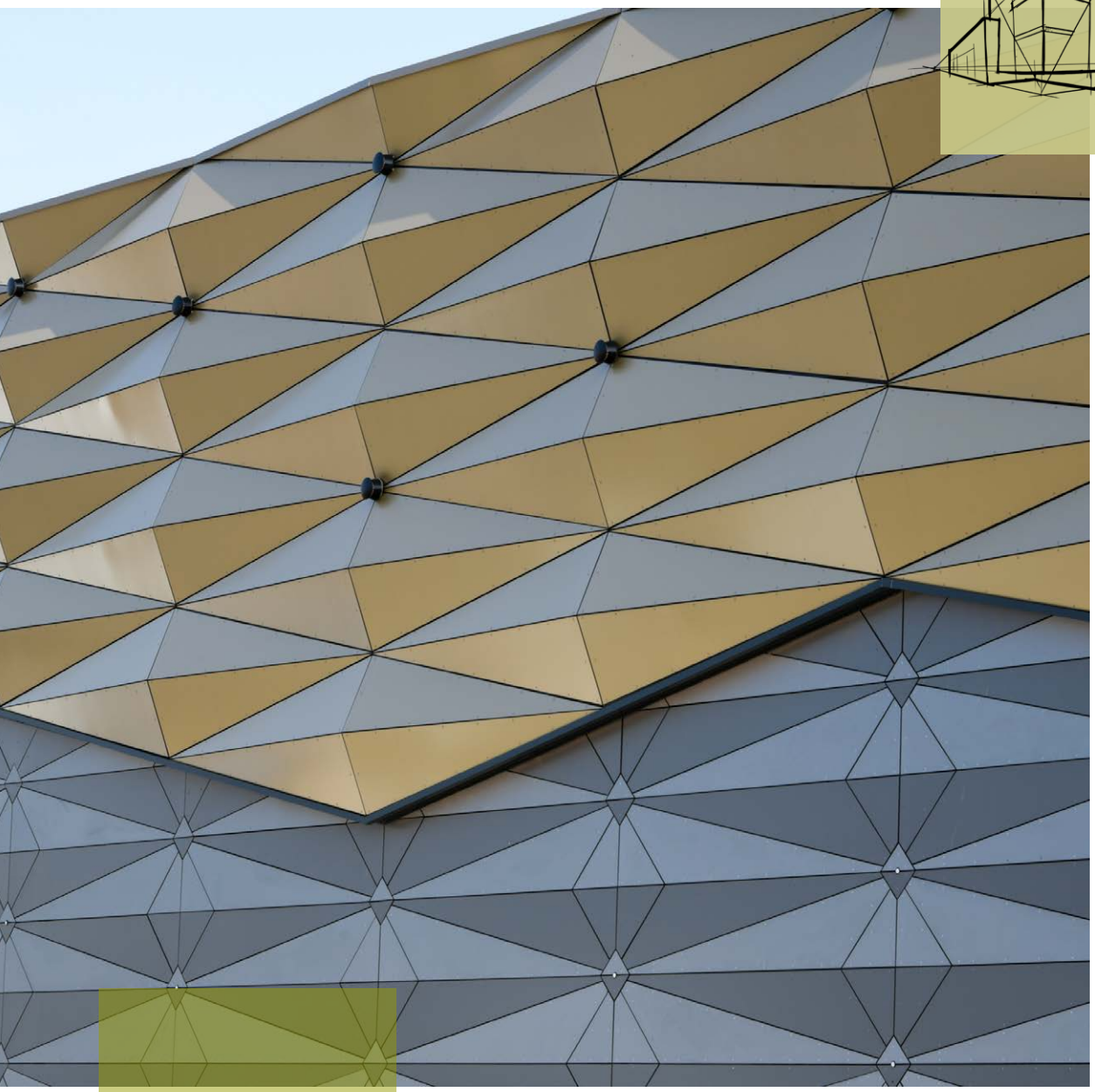
Product Data Sheet Rockpanel Metals





Rockpanel Metals

Key product data

Product description

Modern architecture is often characterised by an industrial design look. Give your high-quality facades an elegant finish. Rockpanel Metals creates amazing effects on facades because of the sheen from the light striking it – even with timelessly modern residential buildings.

Assortment

Product Line	Board Composition	Thickness	Standard dimensions
Rockpanel Metals	A2	9 mm	1200/1250 x 2500/3050 mm

Surface

The surface of Rockpanel Metals is treated with a four-layer water-borne polymer emulsion paint on one side, and comes standard with a ProtectPlus finish. The Rockpanel ProtectPlus boards are provided with an extra anti-graffiti clear coat as a fifth layer on top of the coloured paint.

Fire Safety

The Euroclass-classification of all Rockpanel products is based on testing with non-combustible mineral wool insulation. For the field of application covered by the classification please see the relevant Declaration of Performance. For high-rise buildings and high-risk buildings Rockpanel recommends the application of non-combustible (Euroclass A1-A2) cladding and insulation.

Key product properties

Rockpanel Metals	A2	Unit	Test/classification method
Optical properties			
Colour stability (5000 h)	ProtectPlus: 4 or better	Class on greyscale	ISO 105 A02
Fire			
Fire classification	A2-s1, d0	Euroclass	EN 13501-1
Physical properties			
Weight	11.25	kg/m²	
Density, nominal	1250	kg/m³	EN 323
Thermal conductivity	0.55	W/m·K	EN 10456
Water vapour permeability ProtectPlus 23 °C and 85 % RH (S_d)	N/A	m	EN 12572
Coefficient of thermal expansion (α)	9.7	10^{-3} mm/m·K	EN 438:2 clause 17
Coefficient of moisture expansion 23 °C/50% RH to 95 % RH (after 4 days)	0.206	mm/m	EN 438:2 clause 17
Mechanical properties			
Bending strength, length and width (f_{05})	≥ 25.5	N/mm²	EN 310 / EN 1058
Modulus of elasticity m (E)	4740	N/mm²	EN 310

Fixing distances

Maximum Fixing distances (mm)	A2 9 mm	
	b max.	a max.
Nail	N/A	N/A
Screw	N/A	N/A
Rivet	600	600
Bonding	N/A	N/A

Test in this document are executed according the European Assessment Document (EAD 090001-00-0404) for Rockpanel boards.

Rockpanel boards

General product information

The Rockpanel boards are produced from compressed natural basalt, a sustainable and readily available volcanic rock and bonded with an organic binder from which all Rockpanel products derive their unique properties. The products combine the advantages of stone and workability of wood.

Fire safety

Rockpanel boards offer high performance when assessed for reaction to fire. Due to the nature of the stone wool fibres and the low binder content the boards have a low calorific value, this means that they will hardly contribute to a fire when exposed. As a result, the addition of environmentally unfriendly flame retardants is not needed. The Rockpanel products are tested in accordance with the European harmonized technical specification (EAD 090001-00-0404) and are classified in accordance with EN 13501-1. The reaction to fire classification is based upon the end use situation as described in the EAD with non-combustible mineral wool insulation. The field of application covered by the reaction to fire classification is given in the Declaration of Performance (DoP, see www.rockpanel.com).

For high-rise buildings and high-risk buildings Rockpanel recommends only the application of non-combustible (Euroclass A1-A2) cladding and insulation.

Sustainability and environment

Rockpanel A2 products have been independently certified for their environmental performance by the Building Research Establishment (BRE), complying with all requirements identified in the scheme document SD028.

BRE granted Rockpanel an Environmental Product Declaration (Environmental Profiles Certificate No. 427) acknowledging Rockpanel A2 board material as amongst the best in their category with A+ and A ratings for various structures.

Rockpanel A2 products have an Environmental Product Declaration (EPD) according to the EN15804 issued by Institut Bauen und Umwelt e.V. (IBU).

The influence on air quality and release of dangerous substances to soil and water has been determined to achieve the European Technical Assessment. The analysis showed Rockpanel boards contain no dangerous materials such as biocides; the manufacture of Rockpanel boards does not involve the use of flame retardents or cadmium. The formaldehyde concentration is ≤ 0.0105 mg/m³ which relates to formaldehyde class E1.

Packaging

The panels are provided with a protective film on the decorative face (with the exception of Rockpanel Metals White Aluminium/Grey Aluminium) and are delivered on pallets and with a protective cover and edge protection. The panels must be stored on a dry sub-soil and protected against rain, preferably under a cover. Pallets must be stacked no more than two pallets high. The panels should be lifted upward when being handled and 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.

Visual appearance

Surface quality: Rockpanel boards are produced with the utmost care and individually checked before being approved. In the event of doubts the panels are judged visually for aesthetic flaws, in daylight, without sight enhancements, from a distance of at least 5 metres in front of the surface of the facade element, with an observation angle of 45° (horizontally/vertically).

Batches: Rockpanel boards are produced using incoming inspection, process assurance and quality control by which Rockpanel Colours boards in RAL/NCS colours out of different batches can be combined. However for all other products and for project related orders, the whole order for a given project must be ordered as a single batch.

Maintenance

Depending on the surface treatment, the boards can be cleaned with ordinary cleaning agents such as car shampoo dissolved in lukewarm water. Organic solvents for boards with the ProtectPlus finish are in general also allowed (such as white spirit and acetone), however consult Rockpanel for the correct application method. To remove graffiti, Rockpanel can supply a special cleaner.

Rockpanel recommends inspection and when needed cleaning once a year. For more information, please contact Rockpanel.

Rockpanel Metals

Detailed product information

Within our detailed product information section you can read about the impact resistance, suitable sub frames, fire properties and the specified fixings. Also visit www.rockpanel.co.uk for additional information on Rockpanel board material, such as a complete overview of the Rockpanel assortment, guidelines for processing and installation, specifications text, health and safety and application.

Impact resistance

Categories	A2	Test / classification method
Hard body (1 J)	IV	ISO 7892: 1988
Hard body (3 J)	III, II, I	
Hard body (10 J)	II, I	
Soft body (10 J)	IV, III	
Soft body (60 J)	-	
Soft body (300 J)	-	
Soft body (400 J)	-	

Application for full boards, for a complete overview and description, please consult the relevant European Technical Assessment.

Suitable sub frames

Rockpanel Metals in A2 quality can only be attached to a sub frame of aluminium or steel. The minimum thickness of the vertical aluminium profiles is 1.5 mm. The aluminium is AW-6060 according to EN 755-2. The $R_m/R_{p0.2}$ value is 170 /140 for profile T6 and 195/150 for profile T66. The minimum thickness of the vertical steel profiles is either 1.0 mm (steel quality is S320GD +Z EN 10346 number 1.0250, or equivalent for cold forming), or 1.5 mm (steel quality EN 10025-2:2004 S235JR number 1.0038).

Properties in relation to fire

Product Grade	Vertical subframe*	Construction build-up	Fixing method	Classification
A2 9 mm	Aluminium or steel subframe	Ventilated with ≥ 20 mm cavity	Mechanically fixed	A2-s1, d0

* For a complete overview and description of the end use situation in which the classification is determined, please consult the relevant European Technical Assessment.

Fixings specified for use with Rockpanel A2

	Rivet[1]			
A2 9 mm	✓	✓	✓	✓
Supplier	SFS	MBE	SFS	MBE
Code	AP14-50180-S	1290406	SSO-D15-50180	1290806
Sub frame[2]	Aluminium sub frame	Aluminium sub frame	Steel sub frame	Steel sub frame
Thickness subconstruction[2]	≥ 1,5 mm	≥ 1,8 mm	≥ 1,0 mm	≥ 1,5 mm
Material (body)	EN AW-5019 (AlMg5) according EN 755-2	EN AW-5019 (AlMg5) according EN 755-2	Stainless steel material nr. 1.4578 according EN 10088	Stainless steel material nr. 1.4567 according EN 10088
Length	18 mm	18 mm	18 mm	16 mm
Shank diameter	5 mm	5 mm	5 mm	5 mm
Head diameter fixing	14 mm	14 mm	15 mm	14 mm
Hole Ø fixed point	5,1 mm	5,1 mm	5,1 mm	5,1 mm
Hole Ø moving point	8,0 mm	8,0 mm	8,0 mm	8,0 mm
Hole Ø slotted point	5,1 x 8,0 mm	5,1 x 8,0 mm	5,1 x 8,0 mm	5,1 x 8,0 mm

[1] For correct fixing, use riveting tool with rivet spacer
[2] In accordance with paragraph "Suitable sub frames"

European Technical Assessment (ETA)

Declarations of Performance (DoP)

European Technical Assessment ETA-13/0340:	Rockpanel A2 9 mm finish Colours and Rockpanel A2 9 mm finish ProtectPlus	0764-CPR-0317

Additional information

The product data sheet Rockpanel Metals clearly specifies the general product properties and is not related to national building regulations. Relevant information about the application of Rockpanel boards related to national building regulations or national guidelines can be found in the Rockpanel instruction guide and on the Rockpanel website. The Rockpanel instruction guide and the website also provide fixing tables related to national annex of the EN 1991-1-4.

Published January 2024. This publication supersedes and replaces all previous datasheets. Subject to alterations. All data are intended to serve as general information about our products and their possible uses. This publication is an extract of the European Technical Assessment, which is the only legally binding document. ROCKWOOL B.V. / Rockpanel disclaims any liability towards possible (typing) errors and incomplete information in this product data sheet. No rights may be derived from the content of this publication.

www.rockpanel.co.uk

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