

DECLARATION OF PERFORMANCE

No. **0764-CPR-0317 - DK - vs01**

1. *Unique identification code of the product-type:*

Rockpanel A2 finish Colours/Rockclad (9 mm),
Rockpanel A2 finish ProtectPlus (9 mm) and
Rockpanel A2 finish Structures (9 mm)

2. *Type, batch or serial number or any other element allowing identification of the construction product as required pursuant to Article 11 (4):*

Backside print on the board.

3. *Intended use / es*

Internal and external wall and ceiling finishes

4. *Manufacturer*

ROCKWOOL B.V.
Industrieweg 15
NL-6045 JG Roermond, Netherlands
Tel. +31 475 353 53

5. *System or systems of AVCP (assessment and verification of constancy of performance of the construction product) as set out in Annex V (amended by : OJ L 157, 27.5.2014, p. 76-79)*

System 1 for reaction to fire and system 2+ for other characteristics

6. *European Assessment Document:*

EAD 090001-00-0404 for Prefabricated compressed mineral wool boards with organic or inorganic finish and with specified fastening system, edition May 2015.

European Technical Assessment: ETA-13/0340 of 2019-11-19

Technical Assessment Body:

ETA-Danmark A/S
Göteborg Plads 1, DK-2150 Nordhavn, Denmark
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Notified Body:

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Nienburger Strasse 3, D-30167 Hannover, Germany
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and issued:

Certificate of Constancy of performance No. 0764 - CPR – 0317

7. Characteristics of the product

The Rockpanel A2 Colours/Rockclad panels are surface treated with a four-layer water-borne polymer emulsion paint on one side, in a range of colours.

The Rockpanel A2 ProtectPlus panels are surface treated with a four-layer water-borne polymer emulsion paint on one side, which has been provided with an extra anti-graffiti clear coat as a fifth layer on the colour paint.

The Rockpanel A2 Structures panels are surface treated with a three-layer water-borne polymer emulsion paint on one side, in a range of colours.

The physical properties of **Rockpanel A2 (9 mm)** are indicated below:

- Thickness, nominal: 9 mm
- length, max: 3050 mm
- width, max: 1250 mm
- density, nominal: 1250 kg/m³
- bending strength: length and width $f_{05} \geq 25.5 \text{ N/mm}^2$
- Modulus of Elasticity: $m(E) \geq 4740 \text{ N/mm}^2$
- Thermal conductivity EN 10456: 0.55 W/(m·K)

Clause 8 contains the performances of Rockpanel A2 (9 mm).

8. Declared performance

| Essential characteristics | Performance | | | | Harmonised technical specification |
|---|---|-------------------------------------|-------------------------------------|--|---|
| Basic Requirements for construction works BR2 - Safety in case of fire | Table 1 - Euroclass classification of constructions with Rockpanel A2 boards | | | | |
| | Fixing method | Ventilated or non-ventilated | subframe | Euroclass | ETA-13/0340 issued 2019-11-19 EN 13501-1 |
| | mechanically fixed | Ventilated with ≥ 20 mm cavity | vertical aluminum or steel profiles | A2-s1,d0 open horizontal joint max. 8 mm | |

Field of application

The following field of application applies.

Euroclass classification

The classification mentioned in Table 1 is valid for the following end use conditions:

Mounting:

- Mechanically fixed to a metal subframe
- The panels are backed with min. 50 mm mineral wool insulation with density 30-70 kg/m³ according to EN 13162 with a cavity between the panels and the insulation

Substrates:

- Concrete walls, masonry walls

Insulation:

- Ventilated constructions: The subframe is backed with min. 50 mm mineral wool insulation with density 30-70 kg/m³ according to EN 13162 with a cavity of minimal 20 mm between the panels and the insulation
- Results are also valid for all greater thickness of mineral wool insulation layer with the same density and the same or better reaction to fire classification
- Results are also valid for the panels without insulation, if the substrate chosen according to EN 13238 is made of panel with Euro-class A1 or A2 (e.g. fibre-cement panels)

Subframe:

- Test results are only valid for a metal subframe

Fixings:

- Results are also valid with higher density of the fixing devices
- Test results are also valid for the same type of panel fixed by rivets made of the same material of screws and vice versa

Cavity:

- Unfilled
- The depth of the cavity is minimum 20 mm
- Test results are also valid for other higher thickness of air space between the back of the board and the insulation behind the subframe

Joints:

- Vertical joints are without a gasket backing and horizontal joints can be open or closed with an aluminum profile
- The result from a test with an open horizontal joint is also valid for the same type of panel used in applications with horizontal joints closed by steel or aluminum profiles
- Max joint width: 8 mm

The classification is also valid for the following product parameters:

- Thickness: • Nominal 9 mm
- Density: • Nominal 1250 kg/m³

| Essential characteristics | Table 2 - Performance - Water vapour permeability and water permeability | | Harmonised technical specification |
|---------------------------------------|---|-----------------------------|------------------------------------|
| | Property | Declared values | |
| BR3 – Hygiene, health and environment | Water vapour permeability | NPD No Performance Declared | ETA-13/0340 issued on 2019-11-19 |
| | Water permeability | NPD No Performance Declared | ETA-13/0340 issued on 2019-11-19 |

| Essential characteristics | Table 3 - Performance - Release of dangerous substances | | Harmonised technical specification |
|---------------------------------------|--|---|------------------------------------|
| | Property | Product specification | |
| BR3 – Hygiene, health and environment | Dangerous substances | The kit does not contain/release dangerous substances specified in TR 034, dated April 2013*), except Formaldehyde concentration 0.0105 mg/ m ³ . Formaldehyde class E1 The used fibres are not potential carcinogenic No biocides are used in the ROCKPANEL boards No flame retardant is used in the boards No cadmium is used in the boards. | ETA-13/0340 issued on 2019-11-19 |

*) In addition to the specific clauses relating to dangerous substances contained in this European technical Assessment, there may be other requirements applicable to the products falling within its scope (e.g. transposed European legislation and national laws, regulations and administrative provisions). In order to meet the provisions of the Construction Products Regulation, these requirements need also to be complied with, when and where they apply.

| Essential characteristic | Table 4 - Performance - Design value of the axial load for mechanical fixing 9 mm 'Rockpanel A2' boards | | | | | Harmonised technical specification | | |
|--------------------------|--|------------------|----------------|---------|---|------------------------------------|--------------|----------------------------------|
| | For hole diameters fixings see Table 5 | | | | | | Table in ETA | ETA-13/0340 issued on 2019-11-19 |
| | Property | 9 mm boards | Span in mm [a] | | $X_d = X_k / \gamma_M$ in N Middle / Edge / Corner | | | |
| BR4 – Safety in use | Design value of the axial load $X_d = X_k / \gamma_M$ [c] | Rivet fixing [b] | a fixing | b board | | 600 | 600 | 468 / 304 / 200 [c] |

[a] see Table 6

[b] for specifications fixings see Table 8

[c] The following material factors have been used: for the Rockpanel A2 $\gamma_M = 2.0$; for the connection rivet-subframe $\gamma_M = 1.25$

| Essential characteristic | Table 5 - Performance mechanical fixings : hole diameters for 'Rockpanel A2' boards | | | | Harmonised technical specification |
|--------------------------|--|------------|-------------|--------------|------------------------------------|
| | Fixing type [a] | Fixed hole | Moving hole | Slotted hole | |
| BR4 – Safety in use | Rivet | 5.1 | 8.0 | 5.1 * 8.0 | ETA-13/0340 issued on 2019-11-19 |

[a] for specifications fixings see Table 8; for installation methods see table 6a and 6b

| | | | | | | | | | | | | | | | | | | | | |
|--|--|---|---|---------------------------------|--|--|---------|---|---|----------|--------------------------------|-----------|-----------|--|-------|-----------|-----|-----|-----------|-----------|
| Essential characteristic | Table 6a | Performance fixings according to table 4 and 5 with the required edge distances, maximum distances and horizontal installation of boards | | | Harmonised technical specification | | | | | | | | | | | | | | | |
| BR4 – Safety in use | | | <table border="1"> <tr> <td>FP/SP [b]</td> <td>'Fixed point' FP and 'slotted point' SP (according to Table 5) in the middle of the vertical part of the board</td> </tr> <tr> <td colspan="2">All the other fixing points are 'moving points'</td> </tr> <tr> <td>l_m</td> <td>length max 3050 mm</td> </tr> <tr> <td>l_{mv}</td> <td>'moving length' \leq 1510 mm</td> </tr> </table> | FP/SP [b] | 'Fixed point' FP and 'slotted point' SP (according to Table 5) in the middle of the vertical part of the board | All the other fixing points are 'moving points' | | l_m | length max 3050 mm | l_{mv} | 'moving length' \leq 1510 mm | | | ETA-13/0340 issued on 2019-11-19 Table 10, 11 and Fig. 2 | | | | | | |
| | FP/SP [b] | 'Fixed point' FP and 'slotted point' SP (according to Table 5) in the middle of the vertical part of the board | | | | | | | | | | | | | | | | | | |
| | All the other fixing points are 'moving points' | | | | | | | | | | | | | | | | | | | |
| | l_m | length max 3050 mm | | | | | | | | | | | | | | | | | | |
| l_{mv} | 'moving length' \leq 1510 mm | | | | | | | | | | | | | | | | | | | |
| | | <table border="1"> <tr> <td>l_b</td> <td>Length of the board</td> </tr> <tr> <td>b_2</td> <td>max. 600 mm; b_2 in the central area of the board length l_b</td> </tr> <tr> <td>FPM [b]</td> <td>Creating a fixed point by the use of a sleeve FPM</td> </tr> </table> | l_b | Length of the board | b_2 | max. 600 mm; b_2 in the central area of the board length l_b | FPM [b] | Creating a fixed point by the use of a sleeve FPM | <table border="1"> <tr> <td>Fixing type</td> <td>b_{max}</td> <td>a_{max}</td> <td>a_1</td> <td>a_2</td> </tr> <tr> <td>Rivet [a]</td> <td>600</td> <td>600</td> <td>≥ 20</td> <td>≥ 50</td> </tr> </table> | | Fixing type | b_{max} | a_{max} | a_1 | a_2 | Rivet [a] | 600 | 600 | ≥ 20 | ≥ 50 |
| l_b | Length of the board | | | | | | | | | | | | | | | | | | | |
| b_2 | max. 600 mm; b_2 in the central area of the board length l_b | | | | | | | | | | | | | | | | | | | |
| FPM [b] | Creating a fixed point by the use of a sleeve FPM | | | | | | | | | | | | | | | | | | | |
| Fixing type | b_{max} | a_{max} | a_1 | a_2 | | | | | | | | | | | | | | | | |
| Rivet [a] | 600 | 600 | ≥ 20 | ≥ 50 | | | | | | | | | | | | | | | | |
| <table border="1"> <tr> <td rowspan="2">Subframe Aluminum :</td> <td>FPM – Sleeve [a] [b]</td> <td>Drill hole according to Table 5</td> <td>Sleeve</td> </tr> <tr> <td>FP - 'Fixed point' FP (according to Table 5) in the central area of the vertical edge of the board</td> <td>8 mm</td> <td>$\varnothing 8 \times 7.5$ – drill hole $\varnothing 5.1$</td> </tr> </table> | | Subframe Aluminum : | FPM – Sleeve [a] [b] | Drill hole according to Table 5 | Sleeve | FP - 'Fixed point' FP (according to Table 5) in the central area of the vertical edge of the board | 8 mm | $\varnothing 8 \times 7.5$ – drill hole $\varnothing 5.1$ | | | | | | | | | | | | |
| Subframe Aluminum : | FPM – Sleeve [a] [b] | | Drill hole according to Table 5 | Sleeve | | | | | | | | | | | | | | | | |
| | FP - 'Fixed point' FP (according to Table 5) in the central area of the vertical edge of the board | 8 mm | $\varnothing 8 \times 7.5$ – drill hole $\varnothing 5.1$ | | | | | | | | | | | | | | | | | |
| <p>[a]: For correct fixing (FP and FPM) a riveting tool with rivet spacer must be used (e.g. 0.3 mm).</p> <p>[b]: Subframe aluminum</p> | | | | | | | | | | | | | | | | | | | | |

| Essential characteristic | Table 6b | Performance fixings according to Table 4 and 5 with the required edge distances, maximum distances and vertical installation of boards | | | Harmonised technical specification | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--|-----------|--|------------------------------------|--------------------------------------|---------|--|---|--|-------|---------------------|----------|--------------|-------|-------------|-------|-------------|---|---------------------------------|--------|----------------------|------|---|---------------------------|------|--|--|
| BR4 – Safety in use | | <table border="1"> <tr> <td>FP/SP [b]</td> <td>'Fixed points' FP and 'slotted points' SP (according to Table 5) in the middle of the vertical part of the board</td> </tr> <tr> <td>FPM [b]</td> <td>Fixed point realized by a sleeve FPM</td> </tr> <tr> <td>SPM [b]</td> <td>Slotted hole realized by a side sleeve</td> </tr> <tr> <td colspan="2">All the other fixing points are 'moving' points</td> </tr> <tr> <td>l_b</td> <td>Length of the board</td> </tr> <tr> <td>l_{b2}</td> <td>ca $l_b / 2$</td> </tr> <tr> <td>b_3</td> <td>max. 400 mm</td> </tr> <tr> <td>b_4</td> <td>max. 600 mm</td> </tr> </table> | FP/SP [b] | 'Fixed points' FP and 'slotted points' SP (according to Table 5) in the middle of the vertical part of the board | FPM [b] | Fixed point realized by a sleeve FPM | SPM [b] | Slotted hole realized by a side sleeve | All the other fixing points are 'moving' points | | l_b | Length of the board | l_{b2} | ca $l_b / 2$ | b_3 | max. 400 mm | b_4 | max. 600 mm | <table border="1"> <tr> <td>Drill hole according to Table 6</td> <td>Sleeve</td> </tr> <tr> <td>FPM – Sleeve [a] [b]</td> <td>8 mm</td> <td>$\varnothing 8 \times 7.5$ – hole $\varnothing 5.1$</td> </tr> <tr> <td>SPM – Side sleeve [a] [b]</td> <td>8 mm</td> <td>$\varnothing 8 \times 7.5$ – hole $\varnothing 5.1 \times 6.2$</td> </tr> </table> | Drill hole according to Table 6 | Sleeve | FPM – Sleeve [a] [b] | 8 mm | $\varnothing 8 \times 7.5$ – hole $\varnothing 5.1$ | SPM – Side sleeve [a] [b] | 8 mm | $\varnothing 8 \times 7.5$ – hole $\varnothing 5.1 \times 6.2$ | ETA-13/0340 issued on 2019-11-19 Table 11, 12 and Fig. 2 |
| | | | FP/SP [b] | 'Fixed points' FP and 'slotted points' SP (according to Table 5) in the middle of the vertical part of the board | | | | | | | | | | | | | | | | | | | | | | | | |
| FPM [b] | Fixed point realized by a sleeve FPM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SPM [b] | Slotted hole realized by a side sleeve | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| All the other fixing points are 'moving' points | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| l_b | Length of the board | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| l_{b2} | ca $l_b / 2$ | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| b_3 | max. 400 mm | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| b_4 | max. 600 mm | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Drill hole according to Table 6 | Sleeve | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FPM – Sleeve [a] [b] | 8 mm | $\varnothing 8 \times 7.5$ – hole $\varnothing 5.1$ | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SPM – Side sleeve [a] [b] | 8 mm | $\varnothing 8 \times 7.5$ – hole $\varnothing 5.1 \times 6.2$ | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Subframe Aluminum : | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

[a]: For correct fixing (FP, FPM, SP and SPM) a riveting tool with rivet spacer must be used (e.g. 0.3 mm).

[b]: Subframe aluminum

| Essential characteristic | Table 7 – Performance shear strength mechanical fixings | | | | Harmonised technical specification |
|--------------------------|--|--------------|-------------|--------|-------------------------------------|
| | Fixing | Failure load | Deformation | | |
| BR4 – Safety in use | Characteristic shear strength Average values | Rivets | 2390 N | 3.2 mm | ETA-13/0340 issued on 2019-11-19 |

| Table 8 - Specifications mechanical fixings - Rivet aluminum or stainless steel [e] | | | | | | Harmonised technical specification |
|--|-------------------|--|--|--|--|--|
| | Aluminum [d] | Stainless steel A4 [a] | Aluminum [d] | stainless steel [b] | | |
| | Code | AP14-50180-S | SSO-D15-50180 | 1290406 | 1290806 | ETA-13/0340 issued on 2019-11-19 Table 5 |
| | Body | aluminum EN AW-5019 (AlMg5) in accordance with EN 755-2 | stainless steel material number 1.4578 in accordance with EN 10088 | aluminum EN AW-5019 (AlMg5) in accordance with EN 755-2 | stainless steel material number 1.4567 in accordance with EN 10088 | |
| | Mandrel | stainless steel material number 1.4541 in accordance with EN 10088 | stainless steel material number 1.4541 in accordance with EN 10088 | stainless steel material number 1.4541 in accordance with EN 10088 | stainless steel material number 1.4541 in accordance with EN 10088 | |
| | Pull-out strength | $F_{mean,n} = 2038$ | $F_{mean,n} = 1428$ | $F_{mean,10} = 2318$ | $F_{mean,10} = 3212$ | |
| | | $s = 95$ | $s = 54$ | $s = 85$ | $s = 83$ | |
| | | $F_{u,5} = 1882$ | $F_{u,5} = 1339$ | $F_{u,5} = 2155$ | $F_{u,5} = 3052$ | |
| | d^1 | 5 | 5 | 5 | 5 | |
| | d^2 | 14 | 15 | 14 | 14 | |
| | d^3 | 2.7 | 2.7 | 2.7 | 2.95 | |
| | l | 18 | 18 | 18 | 16 | |
| | k | 1.5 | 1.5 | 1.5 | 1.5 | |
| | profile | aluminum $t \geq 1.5$ mm | steel $t \geq 1.0$ mm [a] | aluminum $t \geq 1.8$ mm | steel $t \geq 1.5$ mm [b] | |

[a] : The minimum thickness of the vertical steel profiles is 1.0 mm. The steel quality is S320GD +Z EN 10346 number 1.0250 (or equivalent for cold forming). For minimum coating thickness see [c]

[b] : The minimum thickness of the vertical steel profiles is 1.5 mm. The steel quality is EN 10025-2:2004 S235JR number 1.0038. For minimum coating thickness see [c]

[c] : The minimum coating thickness (Z or ZA) is determined by the corrosion rate (amount of corrosion loss in thickness per year) which depends on the specific outdoor atmospheric environment (the Zinc Life Time Predictor can be used to calculate the Corrosion Rate in $\mu\text{m}/\text{y}$ for a Z coating: <http://www.galvinfo.com:8080/zclp/> (copyright The International Zinc association)).

The coating designation (classification which determines the coating mass) shall be agreed between the contractor and the building owner.

Alternatively a hot dip galvanized coating according to EN ISO 1461 can be used.

[d] : The aluminum 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.

[e] : For correct fixing a riveting tool with rivet spacer must be used (e.g. 0.3 mm)

| Essential characteristic | Table 9 – Performance Impact resistance | | | | Table in ETA | Harmonised technical specification |
|--------------------------|--|-------------------|--------|---------------|--------------|--|
| | Impactor | | Energy | Category | | |
| BR4 – Safety in use | Hard body | Steel ball 0.5 kg | 1 J | IV | 6 | ETA-13/0340 issued on 2019-11-19 |
| | Hard body | Steel ball 0.5 kg | 3 J | III, II and I | | |
| | Hard body | Steel ball 1 kg | 10 J | II and I | | |
| | Soft body | Ball 3 kg | 10 J | IV and III | | |

| Essential characteristic | Table 10 – Performance dimensional stability | | | Table in ETA | Harmonised technical specification |
|--------------------------|---|--------|--------|--------------|--|
| | | Length | Width | | |
| BR4 – Safety in use | Deformation - cumulative dimensional change [a] | 0.061% | 0.066% | 7 | ETA-13/0340 issued on 2019-11-19 |
| | Dry heat 23°C / 50% to 23°C / 0% (mm/m) | -0.240 | -0.290 | | |
| | Coefficient of thermal expansion (10 ⁻⁶ K ⁻¹) | 9.7 | 9.7 | | |
| | Coefficient of moisture expansion 42% RH difference after 4 days (mm/m) | 0.204 | 0.207 | | |

[a] As a consequence the minimum joint width shall be 3 mm, preferably 5 mm.

| Essential characteristic | Table 11 – Resistance to hygro-thermal cycles and Xenon Arc exposure | | Table in ETA | Harmonised technical specification |
|--|---|---------------------------|--------------------------------|--|
| | | Performance | | |
| Aspects of durability and serviceability | Resistance to Hygrothermal cycles | | Pass | ETA-13/0340 issued on 2019-11-19 |
| | Resistance to Xenon Arc exposure EOTA TR010 climate class S (Technical Report 010) 5000 hours artificial weathering | Finish 'Colours/Rockclad' | ISO 105 A02: 3-4 or better | |
| | | Finish 'ProtectPlus' | ISO 105 A02: 4 or better | |
| | | Finish 'Structure' | ISO 105 A02: 3-4 or better [a] | |

[a] valid for the following RAL colours: 7005, 7016, 7021, 7024, 7035 and 9010

9. *The performance of the product identified above is in conformity with the set of declared performance/s. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.*

Signed for and on
behalf of the
manufacturer by:



ROCKWOOL B.V.
W.J.E. Dumoulin
Technical Director Operations
DE-NL

At Roermond, on 2020-06-04
The Netherlands

DOP in accordance with Commission Delegated Regulation (EU) No 574/2014 of 21 February 2014 amending Annex III to Regulation (EU) No 305/2011 of the European Parliament and of the Council on the model to be used for drawing up a declaration of performance on construction products, <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32014R0574>, OJ L 159, 28.5.2014, p. 41-46