

ADHESIVES AND SEALANTS



ETA-07/0141



Rockpanel Tack-S Adhesive system

Product

Rockpanel Tack-S is an elastic adhesive system, specially developed for bonding Rockpanel boards.

Application

Adhesion of Rockpanel panels (exclusively) for: façade cladding, fascias, eaves, soffits and canopies.

Rockpanel Tack-S features

- Solvent and isocyanate-free.
- Durable, highly elastic, with optimum stress distribution.
- Good moisture and weather resistance.
- Quick and easy mounting.

Certification and fire classification

- Listed in the European Technical Approval, ETA 07/0141, for Rockpanel® panels
- Listed in IKOB-BKB CERTIFICATE NL-associated document to ETA-07/0141, no. IKB1718
- Glued Rockpanel boards, of Rockclad or AG type, 8mm thick, fall in the European fire class B-s2, d0

Rockpanel adhesive system

- The bonding system consists of:
- Rockpanel Tack-S highly elastic adhesive.
- Primer MSP
 primer for backside of Rockpanel boards
- Liquid 1
- for pretreatment of the front side of the Rockpanel strips
- in case timber battens are used.
- Prep MFoamTape
- for pretreatment of aluminium support profiles.
- for the initial bonding of the panels and a spacer to obtain a sufficient thick adhesive layer.





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Information for the construction designer

Conditions on the underlying structure

Air space and ventilation

The underlying supporting structure for façade applications should be vertical and ventilated. The gap between the back side of the panels and the underlying structure should be at least 40 mm. The maximum span of the panels is listed in the tables. The gap can be reduced from 40 to 20 mm minimum.

Choice of materials

Quadrilateral smoothly-planed wood types with a durability class and moisture content corresponding to the conditions listed in the Certificates are suitable. Aluminium alloy and material thickness corresponding to the Certificates.

Dimensions of wooden battens

Rockpanel Rockclad 8 mm strips are mechanically attached to the battens. The minimum width dimensions of the battens depend on the function of the supporting strut. See also the paragraph on details of the Rockpanel adhesive system (on page 4).

| batten for joint connection remaining battens | 70 mm 45 mm |
|--|----------------|
| Minimum supporting strut thickness | 28 mm |

The Rockpanel Rockclad strip should be allowed to extend out on both sides by at least 15 mm.

Structural safety

Self weight of panels

Average value of shear strength (self weight of panel): $5,250 \text{ N/m}^1$ adhesive bead. The self weight load of the panel is not a definitive criterion for failure.

Wind load

Characteristic value of stress (wind load): 4,290 $\ensuremath{\,N/m^1}$ adhesive head.

Calculation of wind suction corresponding to NEN 6700/6702. The ETA gives a characteristic tensile strength for the adhesive bonding of 0.33 N/mm². For an adhesive bead breadth of 13 mm this corresponds to 4290 N/m¹. The tensile strength of panel bonding is not definitive in the wind calculation for a total safety γ_m . γ_f of 3.

Support distances

For the maximum support distances please consult Rockpanel.

NOTE: horizontal applications (soffit, canopy, awnings, ceilings)

For horizontal constructions different fixing distances are advised. For this application Rockpanel advises approx. 70% of the distances for façade bonding, so that for batten distances > 300 mm, support may be needed until the adhesive has hardened. For horizontal applications preferably apply the battens perpendicular to the façade.

CONSTRUCTION



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Indication of consumption per 100 m²

| Surface of Rockpanel panel | number | standard packaging |
|--|---------------|--------------------|
| Simson FoamTape | 12 rolls | 25 metres |
| Simson Rockpanel Tack-S | 50 cartridges | 290 ml |
| Simson Primer MSP (back side of Rockpanel) | 6 cans | 500 ml |
| Simson Liquid 1 (Rockpanel strip) | 1 can | 1000 ml |
| Simson Prep M (metal) | 2 cans | 500 ml |
| | | |

Detailed drawings of Rockpanel Tack-s Adhesive system

Figure 1 shows drawings of the basic principle for adhesion to aluminium profiles and mechanically fixed Rockpanel strips on wooden battens. Drawing 1-204b shows the vertical joint with Rockpanel strip on timber battens.

| | | Aluminium profile | Timber batten with Rockpanel strip |
|--|------------------------|--|---|
| Types of ventilated underlying structures | | aluminium profile | timber batten Rockpanel Rockclad 8 mm strip surface coating cleaned with Simson Liquid 1 |
| Materials same for both supporting structures primer and panel | adhesive/ tape | Simson FoamTape double- sided adhesive 3 mm | Rockpanel Tack-S applied in a triangular cross section |
| | primer and panel | | Simson Primer MSP (transparent) |



- **11a.** 8 mm Rockpanel Rockclad strip; strip mechanically attached with Rockpanel nails or screws
- **13.** Reverse side treated with MSP Primer (transparent)
- 21b. Triangular Tack-S adhesive bead with height of 9 mm
- **22.** 2-sided adhesive FoamTape, 3*12 mm

Detail 1-204B. Rockpanel Tack-S adhesive system with Rockpanel panels glued to mechanically attached Rockpanel Rockclad strips on ventilated vertical timber battens.

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Information for the installer

Guidelines for pretreatment and positioning

1. Pretreatment of aluminium profiles

For aluminium supporting structures Simson Prep M must be applied with a clean, fluff- and dust-free colourless cloth or tissue. Start applying adhesive after a drying time of 10 minutes.

2. Pretreatment of surface of Rockpanel strips

Clean the surfaces of the 8 mm Rockpanel Rockclad strips with a clean, fluff- and dust-free colourless cloth or tissue moistened with Liquid 1.

3. Priming Rockpanel panels

Use Simson Primer MSP to pretreat the adhesive side of the panel with the special application set with rollers (not directly from the package). One layer of primer is sufficient. Multiple layers are not permitted. For Rockpanel Rockclad (vapour-permeable) remove the protective film from the front of the panel before priming. Prime the panels vertically (standing upright), not horizontally (lying down), to prevent the solvent in the primer from penetrating too deeply into the panels and weakening the coating on the front. Pretreat the panel over its entire length and in strips of 100-150 mm with this primer. Allow a minimum drying time of 60 minutes for Primer MSP.

4. Applying assembly tape

After the primers and cleaners have dried, apply the Simson FoamTape vertically and continuously only onto the supporting structure. Press on the FoamTape and cut with a sharp knife. For the correct positioning and length of the tape, also keep in mind the dimensions and function of the supporting strut, the dimensions of the Rockpanel panel and the required gap for the Rockpanel Tack-S. After applying the tape, do not remove the protective layer immediately.

5. Applying Rockpanel Tack-S with special nozzle

Apply Rockpanel Tack-S vertically and continuously only, after the FoamTape has been applied. Use manual or air guns for this. Use the special nozzle so that a triangular adhesive bead with a height of approximately 9 mm can be applied. If necessary cut the nozzle across the factory-provided V-incision for a clean working angle.

6. Positioning Rockpanel panel

Remove the protective layer from the FoamTape. The Rockpanel panel must be positioned within a maximum of 10 minutes after application of the adhesive. Position the panel by pressing it gently and adjusting if necessary. This is still possible before the Rockpanel panel touches the FoamTape. If necessary, use spacers, support blocks or a horizontal batten for good positioning of the panel. Use a glass clamp if necessary to improve the grip. Once the panel is well positioned, it should be gently pressed, for example with a straight rule so that the FoamTape is completely contacted across the back of the panel. Pressing with a rule prevents "bulging". Correction is now no longer possible.

7. Cleaning

Remove fresh primer or adhesive residues on the Rockpanel panel with Simson Cleaner Liquid 1. Use a clean, fluff- and dust-free cloth or tissue.

APPLICATION

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Technical data

Rockpanel Tack-S

Type Shore A Density Skin formation (start) Hardening rate

Elongation at break Temperature resistance Processing temperature Packaging & Article code

Colour

Shelf life

15 minutes (at 20°C/RH 50%) approx. 3 mm/24 hours (at 20°C/RH 50%) 200 % (DIN 53504/ISO 37) -40/+ 100 °C + 5/+ 35 °C 290 ml cartridges 131441 600 ml sausage 131411 white Store in a cool (between +5 and $+35^{\circ}$ C) and dry place. Can be stored at least 12 months in unopened packaging.

1-component, elastic

1,3 gram/ml

Special nozzle

For gunning Rockpanel Tack-S, a special nozzle is provided with each cartridge. This applies a triangular bead 9 mm wide and 9 mm in height. The nozzle prevents air inclusion and unnecessary loss of adhesive.

Primer MSP

Special water-resistant primer Simson MSP, suitable for pretreatment of the adhesive side of Rockpanel panel.

Dry substance content 40 % Minimum drying time 60 minutes Maximum processing time 30 minutes + 5∕+ 30 °C Processing temperature Shelf life Can be stored for 12 months (after production) in unopened packaging

Packaging & Article code 500 ml 22080 Simson Primer MSP is to be used with a special application set: velvet brush rollers with handle and basin. The roller ensures minimum consumption for an optimal pretreatment.

Further information

Consult information on www.rockpanel.com The following publications are available on request: Material Safety Data Sheets (MSDS)

European Technical Approval, ETA 07/0141

Bostik B.V.

Postbus 303 5201 AH 's-Hertogenbosch Tel: +31 (0)73 6 244 244 Fax: +31 (0)73 6 244 344 E-mail: infonl@bostik.com Internet: www.bostik.nl

Bostik Belux SA-NV Meulestedekaai 86 B-9000 Gent

Tel: +32 (0)9 255 17 00 Fax: +32 (0)9 255 17 01 E-mail: info@bostik.be Internet: www.bostik.be

Liquid 1 and Prep M

For adhesion to supporting structures, two pretreatment preparations are available: Liquid 1 for Rockpanel Rockclad strips (mechanically fixed on wooden battens) and Prep M for aluminium profiles.

Liquid 1

| Technical characteristics | for Rockclad strips surface | |
|---------------------------|-----------------------------------|-------|
| Dry matter content | 0 % | |
| Colour | transparent | |
| Minimum drying time | | |
| at 20°C/50% RH | 5 minutes | |
| Maximum processing time | n/a minutes | |
| Packaging & Article code | container 1000 ml | 25380 |
| Processing temperature | +5 ∕ +30°C | |
| Shelf life | Can be stored 12 months (after | |
| | production) in unopened packaging | ng |
| | | |

Prep M

for aluminium Technical characteristics Dry matter content 17 % Colour Minimum drying time at 20°C/50% RH Maximum processing time n/a minutes Packaging & Article code Processing temperature Shelf life

transparent 10 minutes container 500 ml 22110 +5 / +30°C

Can be stored 12 months (after production) in unopened packaging

Liquid 1 is also suitable for the direct removal of adhesive and primer residues.

FoamTape

Double-sided adhesive HDPE FoamTape with a 3 mm thickness of 3 mm and 12 mm width. It provides the initial bonding of the Rockpanel panels and guarantees adequate thickness and shape of the adhesive beading. FoamTape has a protective film of silicone paper on one side. FoamTape has a dense structure and is very resistance to moisture and dirt.

| Colour | grey |
|--------------------------|-----------------------------|
| Density | 50 kg/m3 |
| Packaging | 25 meters/roll |
| Working temperature | +5 ∕ +35 °C |
| Shelf life | Can be stored for 12 months |
| Packaging & Article code | 25 metre rol 182771 |

For more information consult the product safety sheets at www.bostik.nl.



The Adhesive Company

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