

In blue header:

Bostik logo. Top right corner: Paneltack logo

Paneltack HM

BONDING SYSTEM FOR ALUCOBOND

On top of left column: INSTALLATION INSTRUCTION

BENEFITS

- Reliable aesthetic blind fixing method
- Simple and fast mounting
- Optimal tension distribution
- Possibility to use thinner panels
- No drilling in panels
- Avoiding thermal bridges
- Savings on maintenance

PRODUCT

Bostik Paneltack HM is a moisture curing elastic adhesive based on Hybrid technology.

Bostik Paneltack HM is solvent- and isocyanate free.

Bostik Paneltack HM is certified EC1+.

APPLICATIONS

Bonding of ALUCOBOND panels for:

- Exterior facade- and interior wall cladding
- Roof eaves
- Ceilings, awnings and wall-covering panels in porches
- Parapets

This concerns the ALUCOBOND facade panels:

ALUCOBOND PLUS, ALUCOBOND A2.

ALUCOBOND

ALUCOBOND® PLUS is a composite panel consisting of two aluminium cover sheets and a mineral-filled polymer core. ALUCOBOND® A2 is a non-combustible aluminium composite panel used in architecture that fulfills the respective standards worldwide.

Thickness and weight (ALUCOBOND PLUS, ALUCOBOND A2): 3 mm – 5.9 kg/m² 4 mm – 7.6 kg/m²

Dimensions:

ALUCOBOND PLUS: Width 1000, 1250, 1500, 1575, 1750 mm / Length 2000 – 6800 mm

ALUCOBOND A2: Width 1000, 1250, 1500, 1575, 1650 mm / Length 2000 – 6800 mm

Reaction to fire: ALUCOBOND PLUS: B-s1,d0 ALUCOBOND A2: A2-s1,d0

More information can be found on www.alucobond.com

FEATURES PANELTACK BONDING SYSTEM

- Durable and highly elastic with an optimal tension distribution.
- Suitable for the bonding of larger panels up to panels with a diameter of 4160 mm.
- Excellent mechanical strength and ability to absorb vibrations (e.g. caused by traffic or wind load)
- Good moisture- and weather resistance.
- Quick and easy mounting.
- Optimal pre-treatment of the Alucobond panels with the unique Primer Paneltack

BOSTIK BONDING SYSTEM

The bonding system consists of:

- Paneltack HM highly elastic adhesive.
- Primer SX Black primer for wooden support construction.
- Primer Paneltack for pre-treatment of the bonding side of Alucobond.
- Primer Paneltack (transparent) or Prep G Plus primer for metal support construction.
- Solvent 300 for cleaning aluminum support before applying Prep G Plus
- FoamTape or FoamTape HD 12 x 3 mm for the initial bonding of the panels and a spacer to obtain a sufficient thick adhesive layer.

[packshot panel specific bonding system]

INFORMATION FOR THE CONSTRUCTION DESIGNER

| Product Specifications | Paneltack HM |
|--|--------------|
| Calc. Value Shear Strength N/mm ² | 2.25 |
| Calc. Value Tensile Strength N/mm ² | 1.8 |
| Max. Displacement mm | 3.0 |

For constructional calculations it is recommended using a safety factor 4 for the tensile strength and a safety factor 10 for the shear strength. The width of an adhesive bead is approx. 13 mm.

WEIGHT LOAD OF PANELS

The load as a result of the weight of the cladding panels does not need to be considered in calculations, as this load will be easily met by the bonding system.

WIND LOADS

Consult EN 1991-1-4 (Eurocode 1) and national annexes. Although for normal applications the demands for wind loads are easily met, we advise to consult local notified bodies and/or design engineers. Demands and requirements concerning wind loads may differ within the European countries.

MAXIMUM PANELSIZE

Paneltack HM is highly elastic. Therefore possible deformation of the panels can be absorbed in the adhesive layer. When mounting Alucobond, one must take into account a maximum occurring deformation of 1.44 mm/m¹. In accordance with BRL 4101 part 7 the maximum elastic deformation that the Paneltack HM system in practice can still absorb is 3 mm. This means that the diagonal length of the panels may not exceed 4160 mm.

SUPPORT CONSTRUCTION: DIMENSIONS AND DISTANCES

The minimal widths of supports in the support construction depend on the function of the supports:

| | Wood | Aluminum |
|--|-------|----------|
| I. support for joints | 95 mm | 100 mm |
| II/III. end- and intermediate supports | 45 mm | 40 mm |

Also see detailed drawings. Minimal thickness of the (wooden) support 28 mm. The distances between the support battens or profiles as indicated by the panel manufacturer. For Alucobond this means:

4 mm panels: 625 mm

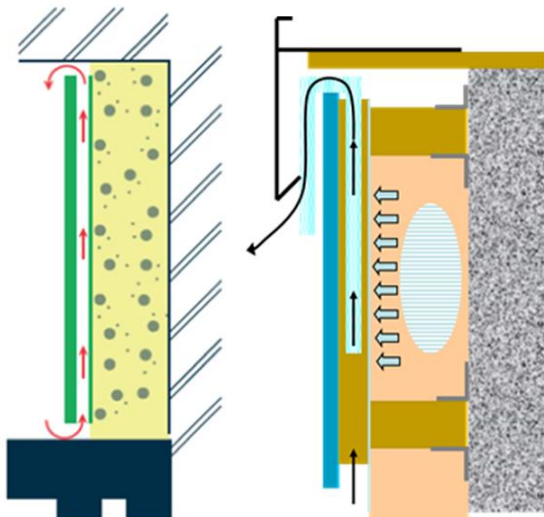
6 mm panels: 750 mm

REMARKS

- For horizontal applications (ceilings, awnings) a maximum distance of 400 mm is advised.
- The maximum permitted fixing distances shown have been designed with a maximum (wind)load of 600 N/m² and maximum deflection of L/200.
- With building above 6 m to be determined by construction designer. As a guideline apply 50 mm less distance than mentioned above.

SUPPORT CONSTRUCTION: VENTILATION

The support battens or profiles must only be mounted vertically. Behind the panels there has to be an open ventilated cavity of at least 20 mm. Furthermore ventilation openings of at least 100cm²/m¹ at both the top and the bottom of the bonded panels. For horizontal applications preferably apply the battens or profiles perpendicular to the façade in order to ventilate over the short end.



SUPPORT CONSTRUCTION: CHOICE OF MATERIAL

Suitable timber: Four-sided clean-planed, clean, dry, dust- and grease free types of wood (spruce, meranti etc.). Wood types need to be sufficiently durable for building constructions according to

local guidelines. Maximal moisture content of the wood is 18%. The wood may contain preservatives based on salts, zinc and copper like Wolman salts. Consult Bostik in case of doubt.

Suitable metal: Dry and smooth (galvanized) steel or (anodized) aluminum. These metals must be rustproof and after fixing they must conform to relevant standards. Enameled metals are suitable as well, however different instructions for use may apply. Consult Bostik about this. Lacquers: A limited number of lacquers applied by means of spraying, are suitable for bonding with the Bostik Paneltack system. Consult Bostik about this.

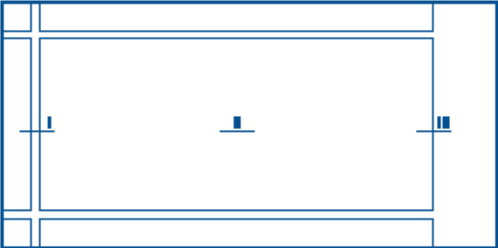
MINIMAL JOINT WIDTH

A joint between the panels with a width of 10 mm is recommended.

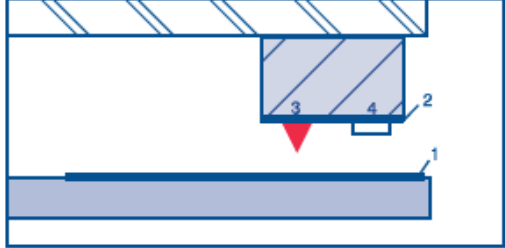
EDGE DISTANCES

A maximal distance of 50 mm between the edge of the panel and the core of the adhesive to be applied must be respected.

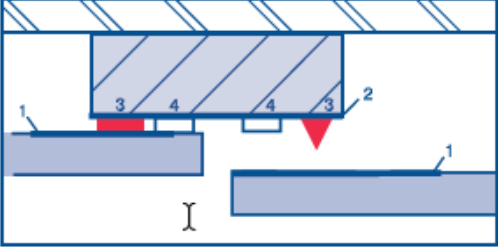
Facade/front view



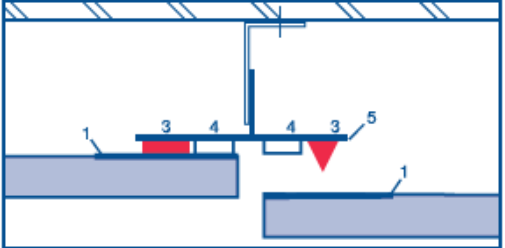
I. support for joints - wood



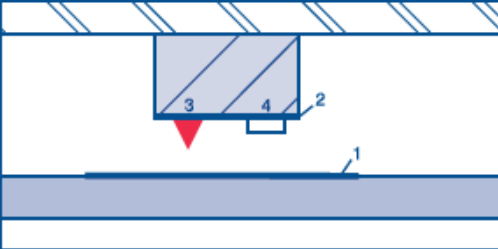
I. support for joints - wood



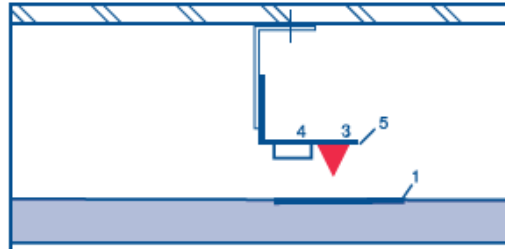
I. support for joints - aluminium



II. intermediate support - wood



II. intermediate support - aluminium



- 1) Pre-treatment bonding-side of panel
- 2) Pre-treatment wooden support construction

- 3) Paneltack adhesive
- 4) Foamtape or Foamtape HD
- 5) Pre-treatment of aluminum support construction

CONSUMPTION INDICATION PER 100 M2 SURFACE PANEL

| | number | standard packaging |
|---|--------|--------------------|
| FoamTape / FoamTape HD | 12 | 25 metre role |
| Paneltack HM | 50 | 290 ml cartridge |
| Paneltack HM | 24 | 600 ml sausage |
| Primer Paneltack (panel) | 3 | 500 ml tin |
| Primer SX Black (wood) | 3 | 1000 ml tin |
| Primer Paneltack (metal, aluminum, transparent) | 3 | 500 ml tin |
| Prep G Plus (aluminum, black) | 2 | 1000 ml tin |
| Solvent 300 (panel, aluminum ico Prep G Plus) | 2 | 1000 ml tin |

APPLICATION CONDITIONS

The cladding panels can be bonded indoors (in a factory) or on the building site. The following conditions apply:

- Do not pre-treat or bond in case of rain.
- Do not pre-treat or bond in case of very high air humidity for instance during dense fog.
- Avoid condensation on both the panels and support construction: the dew point must be 3°C above substrate temperature.
- Apply between +5°C and +30°C.

CONDITIONS PRIOR TO BONDING

Prevent warping of the panels due to the influence of moisture. Storage and cutting of panels according to manufacturer's instructions.

METHOD OF USE

1. PRE-TREATMENT SUPPORT CONSTRUCTION

The support construction must be primed before or after mounting. The primer can be applied both in- and outdoors. Use Primer SX Black for wood and Primer Paneltack for metal or aluminum. For aluminum in case a black finish is preferred use the combination of Solvent 300 and Prep G Plus. One (continuous and closed) coat of primer is sufficient. Residues of primer should not be used. Avoid contamination of the support construction with dust and grease after application of primers.

Wooden support construction:

Shake the unopened tin of Primer SX Black well before use and pour the primer into a clean paint tray. Use the special application set with the rollers. Apply sufficient primer to the adhesion surface in a continuous and closed coat or film. After application the minimal drying time is 60 minutes. Do not treat more surface than can be bonded within 24 hours.

[*animation pre-treatment wooden support construction*]

Metal or aluminum support construction, transparent primer:

Apply Primer Paneltack straight from the tin on a clean, lint free and pigment free cloth or tissue paper. Firmly rub the supports with the primer-soaked cloth. Minimal drying time after application 10 minutes. Replace cloths regularly by new ones. Do not treat more surface than can be bonded within 6 hours.

[*animation pre-treatment metal support construction*]

Aluminum support construction, black primer:

Apply Solvent 300 straight from the tin on a clean, lint free and pigment free cloth or tissue paper. Firmly rub the supports with the cleaner-soaked cloth. Minimal drying time after application 15 minutes. Replace cloths regularly by new ones.

[*animation cleaning metal support construction*]

Shake the unopened tin of Prep G Plus well before use and pour the amount of primer needed into a clean paint tray. Use the special application set with the rollers. Apply sufficient primer to the adhesion surface in one continuous and closed coat or film. After application the minimal drying time is 30 minutes. Do not treat more surface than can be bonded within 24 hours.

[*animation pre-treatment metal support construction black primer*]

2. PRE-TREATMENT CLADDING PANEL

Do not treat more surface than can be bonded within 6 hours. Use Primer Paneltack on a clean, lint free and pigment free cloth or tissue paper to pre-treat the bonding side of the panel. Rub the panel firmly over the full length and in widths of min. 10-15cm (there where the adhesive beads ought to be. Min. drying time 10 minutes.

[*animation pre-treatment panel wash primer*]

3. APPLYING FOAMTAPE

After the primers and cleaners have dried, apply the FoamTape (or FoamTape HD) vertically and continuously only onto the supporting structure. Press 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 struts, the dimensions of the <Panel Name> and the required gap for the Paneltack HM . Do not remove the protective layer immediately after applying the tape.

[*animation application of FoamTape*]

4. APPLYING Paneltack HM WITH SPECIAL NOZZLE

Apply Paneltack HM vertically and continuously only, after the FoamTape has been applied. Use manual or pneumatic applicator guns. Use the special nozzle to apply a triangular bead of adhesive with a height of approximately 9 mm. If desired, cut the nozzle diagonally where indicated by the V-shaped score so you can hold the applicator as an angle.

[*animation application of adhesive (no adhesive name to be seen/universal)*]

5. POSITIONING ALUCOBOND

Remove the protective layer from the FoamTape. The Alucobond must be positioned within ten minutes after application of the adhesive. Position the cladding panel by pressing it gently and adjusting if necessary. Correction is still possible until the panel touches the FoamTape. For good positioning of the panel, use spacers, support blocks or a horizontal positioning batten. Use a glass clamp if necessary to improve the grip. Once the panel is well positioned, it should be pressed gently without exercising excessive force on a concentrated surface so the FoamTape is completely contacted across the back of the panel. Avoid compressing the FoamTape while doing this.

Correction is now no longer possible. When used for soffit or canopy applications, the FoamTape can normally support the panels, but it is recommended that temporary support be used, yet compression of the FoamTape must be avoided.

[*animation positioning of panel*]

6. CLEANING

Remove fresh primer or adhesive residues on the panels with Bostik Cleaner L. Use a clean, lint free and pigment free cloth or tissue paper. It can not be guaranteed that no visible stains will remain on the panels after contamination of the surface with primer or adhesive so it is strictly advised to work as clean as possible.

[Insert table technical data Paneltack HM]

SPECIAL NOZZLE

A special applicator nozzle is provided with each cartridge of Paneltack HM . It applies a triangular bead 9 mm wide and 9 mm high. The nozzle prevents air inclusion and unnecessary loss of adhesive.

[table technical data Primer Paneltack]

[table technical data Solvent 300]

[table technical data Prep G Plus]

[table technical data FoamTape / FoamTape HD]

REQUEST FOR INFORMATION

The following publications are available:

- Material Safety Data Sheets (MSDS) via <http://bostiksdsthevercs.com/>
- Emission certification EC1+

Disclaimer:

Our general terms and conditions of sale and delivery are exclusively applicable to all our sales and deliveries. All other conditions are expressly rejected. All advice provided by or on behalf of us is purely without obligation. Our communications, including but not limited to recommendations, estimates, calculations, (numerical) information and test data, are based on careful research, the current state of the art and our expertise. Consumption figures shown are purely indicative, based on our expertise and dependent on various environmental factors, including but not limited to the substrate. Before making a choice of the product for the intended use and to assess the operation and effect of the application of the product, we always advise you to first carry out a test on a test surface. The technical documentation and our processing guidelines, as also published on our website, must be observed at all times. When preparing and carrying out the application, the technical documentation and processing guidelines as well as the instructions on the product packaging must be strictly observed. Substrates, such as panel materials and supporting structures, must at all times comply with the applicable and possibly mentioned standards. We reserve the right at all times to modify the products and/or their formulations, as well as the technical documentation and processing guidelines. Execution of the work is at all times under the sole responsibility of the applicator. We take the utmost care to ensure the reliability and up-to-dateness of our technical documentation and processing guidelines. We accept no liability for obvious errors or inaccuracies. Perhaps unnecessarily we note that matters such as application, dimensions and circumstances must always be in accordance with the applicable guidelines.

BOSTIK SMART SUPPORT

Smart help digital
Bostik.com/

Smart help
+31 (0)162 491 000



Bostik Benelux BV

Denariusstraat 11 • NL-4903 RC Oosterhout

Tel.: +31 (0)162 491 000

www.bostik.com

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