



# PanelTack

## For the bonding of HPL-panels such as Trespa Meteon® (FR)

### Product

Simson PanelTack is a moisture curing , highly elastic adhesive based on SMP (Silyl Modified Polymer).  
Simson PanelTack is solvent- and isocyanate free.

### Applications

Bonding of HPL exterior cladding panels for:

- Façade cladding.
- Roof eaves.
- Ceilings and awnings.
- Wall covering panels in a.o. porches.
- Parapets.

### Simson PanelTack features

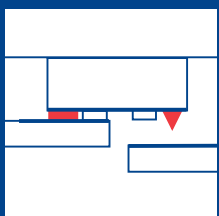
- Durable and highly elastic with an optimal tension distribution.
- Suitable for the bonding of larger panels up to panels with a diameter of 3.44 m.
- The Netherlands: KOMO-certificate SKG'01.08.056.01 certified by SKG.
- Belgium: Tested by WTCB (on both wood and aluminium) for the (ATG) certification of Trespa Meteon®.
- Bonded Trespa Meteon® Standard is regarding reaction to fire classified as D, s2, d0.
- Bonded Trespa Meteon® (FR) is regarding reaction to fire classified as B, s2, d0.
- Excellent mechanical strength.
- Good moisture- and weather resistance.
- Quick and easy mounting.
- Optimal pre-treatment of the Trespa Meteon (FR)® panels with the unique Easy Clean Wipes.



### Simson bonding system

The bonding system consists of:

- |   |   |
|---|---|
| ● PanelTack                                     | highly elastic adhesive.  |
| ● Primer SX Black                               | primer for wooden support construction.   |
| ● Easy Clean Wipes (ECW)<br>or Primer PanelTack | for pre-treatment of the bonding side of Trespa Meteon® (FR).                                   |
| ● Primer PanelTack                              | primer for metal support construction.  |
| ● FoamTape 12 x 3 mm                            | for the initial bonding of the panels and a spacer to obtain a sufficient thick adhesive layer. |





## PanelTack for the bonding of HPL-panels

### Information for the construction designer

#### KOMO-certificate based on the Dutch National Technical Guideline BRL 4101 part 7

The Simson PanelTack System conforms to the demands in the Dutch National Technical Guideline (BRL) as "Adhesive for the fixing of exterior wall cladding panels". KOMO-Certificate with product certificate: SKG'03.08.056.01:

	Primer on wood	Primer on panel	Shear-strength N/mm <sup>2</sup>	Tensile-strength N/mm <sup>2</sup>	Max. permissible displacement mm
PanelTack grey	SX Black	Primer PanelTack or ECW	0.11	0.27	4.3

For constructional calculations conform the Guideline (BRL) a safety factor 4 for the tensile strength and a safety factor 10 for the shear strength must be taken into account. 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

As part of the Dutch constructional decree wind loads must be taken into account. See for the Netherlands the Standard NEN 6702 and for Belgium NBN-B-03-002-1. Demands and requirements concerning wind loads in countries other than the Netherlands or Belgium may differ in content with the Dutch and Belgian standards, therefore we advise to consult local authoritative test institutes. For the calculation, a tensile strength of 0.27 N/mm<sup>2</sup> should be used, when one takes a safety factor of 4 into account, as demanded in the Technical Guideline BRL 4101 part 7. Based on the advised quantity of the adhesive to be used, the system will meet the demands of wind loads according to NEN 6702 up to a height of 150 metres (wind speed area 1), at normal applications.

#### Fire behavior

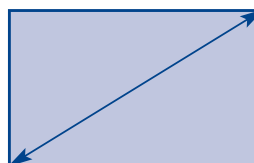
Trespa Meteon® (FR) bonded with Simson PanelTack falls, based on tests according to EN ISO 11925-2 and EN 13823 in the same European classifications according to EN 13501-1 as mechanically fixed panels that is.:

	Fire behavior	Additional classification	
Trespa Meteon® Standard	D	s2	d0
Trespa Meteon® FR	B	s2	d0

#### Maximum panel size

Simson PanelTack is highly elastic, therefore possible deformations of the Trespa Meteon (FR)® panels can be absorbed in the adhesive layer. When mounting Trespa Meteon (FR)® panels a maximal occurring displacement of 2.5 mm/m' has to be taken into account. According to the KOMO-certificate with product-certificate based on the Guideline BRL 4101 part 7 the maximal elastic deformation which the PanelTack system practically still can absorb, may not exceed 4.3 mm. This means that the maximal diagonal length of the panels may not exceed 3440 mm .

Length (in m)	width (in m)
3.05	1.53
2.89	1.86
3.08	1.53
2.43	2.43



The maximum thickness of the panels is 13 mm.

#### Remark

Panels must be evenly flat prior to bonding. In this aspect large panels are more critical than small panels, therefore extra care regarding correct handling and storage is inevitable.

### PanelTack for the bonding of HPL-panels

#### Support construction: dimensions and distances

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

I. support for joints	95 mm
II/III. end- and intermediate supports	45 mm

Also see detailed drawings.

Minimal thickness of the (wooden) support 19 mm

The distances between the support battens as indicated by the panel manufacturer. For Trespa Meteon® (upto 12 m. height) this means:

Panel thickness	6 mm	8 mm	10 mm
2 support battens	400	500	650
3 support battens or more	500	650	650

**Remark:** For horizontal applications (ceilings, awnings) these distances must be multiplied with  $3/4$ .

#### Support construction: ventilation

The support battens must only be mounted vertically.

Behind the panels there has to be an open ventilated cavity of minimal 20 mm. Furthermore ventilation openings / slots at both the top and the bottom of the bonded panels.

Ventilation openings in cladding constructions up to a height of 1 metre 20 cm<sup>2</sup>/m<sup>1</sup>

Ventilation openings in cladding constructions above a height of 1 metre 50 cm<sup>2</sup>/m<sup>1</sup>

For horizontal applications preferably apply the battens perpendicular to the façade.

#### 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 Maximal moisture content of the wood is 18%. The wood may contain preservatives based on salts, zinc and copper according to the Dutch NEN 3251 Standard (e.g. Wolman salts).

**Suitable metal:** Dry and smooth (galvanized) steel or (anodized) aluminium. These metals must be rustproof and after fixing they must conform to the Dutch NEN 6702 Standard. Enamelled 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 Simson PanelTack. Consult Bostik about this.

#### Minimal joint width

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

#### Consumption indication

Panel surface	1 m <sup>2</sup>	100 m <sup>2</sup>	standard packaging
Simson FoamTape	0.12	12	25 metre roll
Simson PanelTack	0.5	50	290 ml cartridge
Simson Easy Clean Wipes or	0.2	20	sachets
Simson Primer PanelTack (panel)	0.03	3	500 ml tin
Simson Primer SX Black (wood) or	0.03	3	1000 ml tin
Simson Primer PanelTack	0.03	3	500 ml tin

# PanelTack for the bonding of HPL-panels

### 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.
- Apply between +5°C and +30°C.

### Conditions prior to bonding

Prevent warping of the panels due to the influence of moisture.

### 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 Simson Primer SX Black for wood and Simson Primer PanelTack for metal. 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.



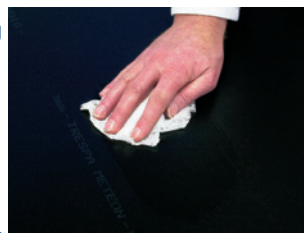
Pre-treatment wooden support construction with Primer SX Black

**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.

**Metal support construction:** 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.

#### 2. Pre-treatment cladding panel

Use Simson Easy Clean Wipes to clean and pre-treat the bonding side of the Trespa Meteon (FR)® panel. Rub the panel firmly with the wipes over the full length and in widths of min. 10-15cm (there where the adhesive beads ought to be). These ready for use non-woven cloths are more user- and environmental friendly than the usual solvent containing primers and cleaners. As an alternative to the Easy Clean Wipes Simson Primer PanelTack for both cleaning and for pre-treatment can be used. Min. drying time 10 minutes.



Pre-treatment of the backside / bonding side with Easy Clean Wipes

#### 3. Application of foamtape

Once the primers have dried, Simson FoamTape is applied only vertically to the support construction without any interruption. Press Simson FoamTape firmly onto the support construction and cut it with a sharp knife. When deciding on the correct position and length of the tape also bear in mind the dimensions of the supports, the dimensions of the panels and the necessary space for the adhesive. Do not immediately remove the protective layer after application of the FoamTape. (See step 5).

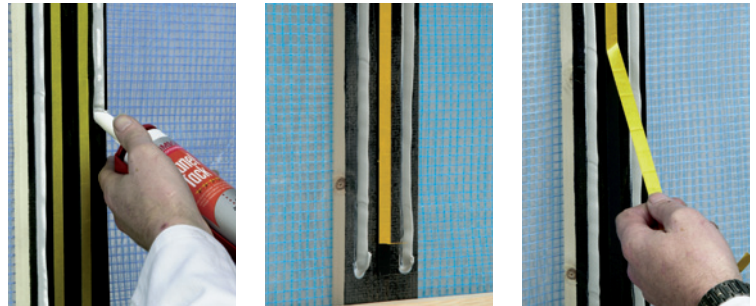


# APPLICATION

### PanelTack for the bonding of HPL-panels

#### 4. Application of adhesive with special nozzle

Apply Simson PanelTack **only vertically** and without interruption after the application of the foam tape. Use a hand- or an air pressure caulking gun. A special V-shaped nozzle has been packed with every cartridge Simson PanelTack. This enables to apply a triangular adhesive bead with a width and height of 9 mm. Using this special nozzle prevents the enclosure of air bubbles and unnecessary loss of adhesive. Opposite the V-cut one can cut the nozzle obliquely.



#### 5. Placing the panel

Now remove the protective layer from the foam tape. Apply the panel within 10 minutes after the application of the adhesive. Position the panel. Correction is still possible until the panel touches the foam tape. For good and easier positioning eventually use a joint spacer, supporting blocks or horizontal supporting laths. For easier handling a glass suction clamp also can be useful. Once the panel is positioned correctly, the panel must be pressed down by gently rubbing over the entire length of the FoamTape. Now it is no longer possible to correct the panel position. See the detail drawings.



#### 6. Cleaning

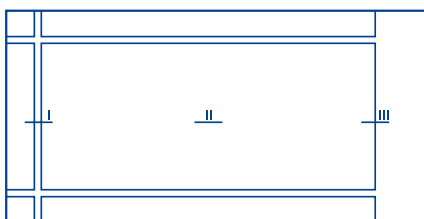
Uncured primer or uncured adhesive residues can be removed with a suitable cleaner such as Simson Liquid 1. Use a clean, lint free and pigment free cloth or tissue paper. Test on a small scale if the cleaner does not attack or contaminate the panel.

#### 7. Removal of the protective foil from the front side

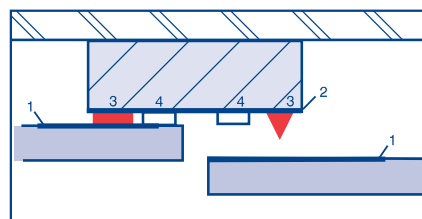
Immediately after bonding the protective foil, if present, on the front side of the panel must be removed.

#### Detail drawings

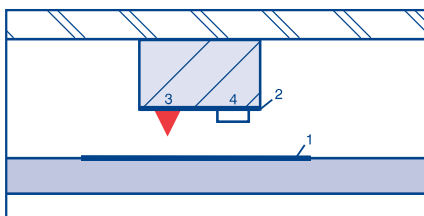
Façade / wall (front view)



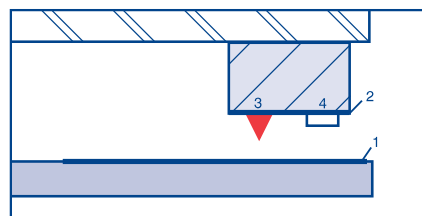
I. Support for joints



II. intermediate support



III. End support



- 1) Simson Easy Clean Wipes (or Primer PanelTack)
- 2) Simson Primer SX Black

- 3) Simson PanelTack
- 4) Simson Foamtape



## PanelTack for the bonding of HPL-panels

### Technical data

#### Simson PanelTack

Basic material	SMP (Silyl modified Polymer)	
Components	1	
Type	elastic	
Consistency	smooth, homogeneous paste	
Shear strength	1.1 N/mm <sup>2</sup>	
Tensile strength	1.1 N/mm <sup>2</sup>	
Max. permissible displacement	4.3 mm	
Shore A	30	
Specific gravity	1.4 g/ml	
Flow resistance 25 mm	0 mm	(at 20°C)
Skin formation (start)	15 minutes	(at 20°C/50%RH)
Temperature resistance	-40°C till +90°C	
Application temperature	+5°C till +35°C	
Packaging & Article code	290 ml cartridges	art. code 131.670
	600 ml sausages	art. code 133.692
Colour	light grey	
Storage stability	store cool and dry between +5°C and +25°C. Can be stored for at least 12 months in unopened packaging. See code at the top of the cartridge: B(est) B(efore) mm/yy.	

#### Simson Primer PanelTack

Application	pre-treatment of panel and metal support construction	
Minimal drying time	10 minutes	
Application temperature	+5°C till +30°	
Dry contents	17 %	
Specific gravity	0.76 g/ml	
Flash point	+ 9°C	
Colour	light yellow/transparent	
Storage stability	store cool and dry between +5°C and +30°C. Can be stored for at least 6 months in unopened packaging. Opened packaging has limited shelf life. See packaging code B(est) B(efore) mm/yy.	
Packaging & Article code	500 ml tin	022.111

#### Simson Easy Clean Wipes

Description	User friendly special cloth, impregnated with a special liquid, suitable for the pre-treatment of the bonding side of the Trespa Meteon (FR) <sup>®</sup> panels
Min. drying time	10 minutes
Packaging	small carton with 10 sachets
Application temperature	+5°C till +30°

#### The Netherlands

Bostik B.V.  
's-Hertogenbosch  
Tel: +31 (0) 73 6 244 244  
Fax: +31 (0) 73 6 244 344

#### Belgium

S.A. Bostik Belux N.V.  
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Tel: +32 (0) 2 370 20 69  
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#### Germany

Bostik GmbH  
Borgholzhausen  
Tel: +49 (0) 54 25/8 01-0  
Fax: +49 (0) 54 25/80 11 40

#### Italy

Mydrin S.r.l.  
Milano  
Tel: +39 02 59918.1  
Fax: +39 02 59918.815

Flash point	approx. 61°C
Storage stability	Store cool and dry between +5°C and +30°C. Can be stored for 12 months in unopened container. See code on container bottom B(est) B(efore) mm/yy
Article code	024.252

#### Simson Primer SX Black

Application	pre-treatment of wooden support construction	
Dry contents	approx. 50%	
Specific gravity	1.03 g/ml	
Flash point	< 21°C	
Drying time	60 minutes	(at 20°C/50%RH)
Colour	black	
Storage stability	Store cool and dry in unopened packaging between +5°C and +30°C. Can be stored for at least 12 months. Opened packaging has limited shelf life. See packaging code B(est) B(efore) mm/yy.	
Packaging & Article code	1 litre tin (6 tins in a box)	023.350

#### Simson application set and rollers

Simson Primer SX Black can be applied with a special application set: velvet brush rollers with handle and paint tray. The rollers offer low consumption and an optimal pre-treatment.

#### Simson FoamTape

Description	two-sided self adhesive HDPE foam tape (12 x 3 mm) with a protective layer on one side	
Application	for initial bond of the panel and a spacer for a sufficient mass and thickness of the adhesive bead	
Specific gravity	50 kg per m <sup>2</sup>	
Pressure tension at 10%	approx. 25 kPa	
Shear strength	approx. 0.27 N/mm <sup>2</sup>	(KOMO-Certificate)
Tensile strength	approx. 0.27 N/mm <sup>2</sup>	(KOMO-Certificate)
Packaging & Article code	25 metre roll	art. code 182.7771
Application temperature	+5°C till +35°C	
Storage stability	Store cool and dry between +5°C and +30° Can be stored for 12 months in unopened packaging	
Colour	grey	

#### Further information

The following publications are available on request

- Material Safety Data Sheets (MSDS): please see [www.simson.nl](http://www.simson.nl)
- KOMO-attestation-with-product certificate SKG '03.08.056.01

#### Scandinavia

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