TECHNICAL DATA SHEET

PARAFOAM PANELGLUE NBS

CHARACTERISTICS

- One-component PU foam adhesive
- Glued parts are chargeable after ± 2 hours
- CFC- and HCFC- free (ozone friendly)
- Accurately controlled application with NBS gun
- Adheres well to most common building materials
- Low post-expansion and expansion pressure
- Resistant to wind load

APPLICATIONS

- Bonding of insulation panels based on polystyrene (XPS, EPS) and polyurethane (PUR and PIR insulation panels) for (exterior) façade and wall insulation and foundations.
- Bonding of flat roof insulation on flat roof (warm roof).
- Bonding of wall panels in indoor applications such as MDF, plasterboard boards, gyproc, composite sheets and OSB panels.
- Bonding of aerated concrete blocks in non-load bearing inner walls.
- Bonding of window sills.
- Filling joints and cavities between insulation panels (if not exposed to UV rays).

TECHNICAL CHARACTERISTICS	
Base	Polyurethane-prepolymer
Colour	Pink
Curing system	Moisture
Open time (TM 1014)	5 min.
Chargeable	After ± 2 hours
Fire class (DIN 4102-1)	B2
Thermal conductivity (EN 12667, TM 1020)	0,034 W/mk
Processing temperature (surface and environment)	-5°C to +35°C (For roof insulation at least +5°C)
Can temperature during use	+5°C to +25°C (Optimal at 20°C)
Temperature resistance of cured foam	-50°C - +90°C
Bond strength EPS on concrete at 23°C (8 mm foam thickness; according to EOTA TR046 - ETICS)	0,12 N/mm²
Shear strength (8 mm foam thickness; according to EOTA TR046 - ETICS)	0,047 N/mm²
Shelf life, unopened in the original packing and vertically stored in a cool and dry area at +5°C to +30°C	15 months
Bonding of insulation panels and wall panels	
Bonding capacity at Ø 30 mm bead (where 40% of the panel surface is covered after pressing the panel)	± 8 - 12 m²
Bonding of aerated concrete bricks for a non-load-bearing internal wall	
Bonding capacity with Ø 30 mm bead	Up to 12 m² wall surface

Technical data according to test methods approved by FEICA. These test methods are designed to provide transparent and reproducible test results, giving an accurate representation of product performance. The FEICA OCF test methods are available at http://www.feica.eu/our-industry/pu-foam-ocf.aspx. FEICA is the multinational association representing the European adhesive and sealant industry, including the producers of one-component foam manufacturers More information at www.feica.eu.

PACKING
12 cans of 750 ml/box - 56 boxes/pallet

METHOD OF USE

Preparation

- Use only in well-ventilated or open areas.

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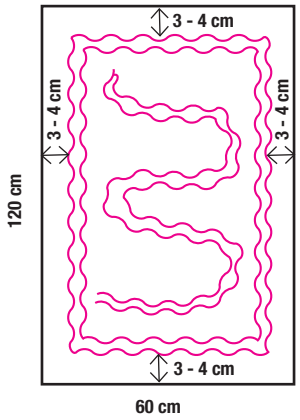
- The substrate must be flat, solid, dry and clean, with no dust, grease, sinter layers, weathering, mortar residue, etc. Check that the substrate has sufficient load-bearing capacity. Check the adhesion of existing coatings. Non-load-bearing layers or loose parts should be removed. Pre-treat powdery substrates with a suitable fixing agent.
- In case of doubt, a test should be performed to determine the suitability of the substrate.
- Slightly moistening dry surfaces promotes curing and adhesion.
- Chilled cans must be carefully warmed up in lukewarm water before usage. However the can must not be heated above +50°C, as there is a risk of bursting. Cans which are too hot must be cooled in water. The can should be shaken occasionally during this process to obtain the required temperature faster.
- It is recommended to perform a bonding test on the substrate in advance.

Application

- Wear gloves and safety glasses.
- Shake PU foam can vigorously at least 20 times before use. Keep the can in upright position when screwing onto the PU foam gun. Move the gun to the can by holding the gun handle with one hand and screwing the can with the other hand. Do not turn the can during screwing. Do not aim the gun at people (Consult the PU foam gun manual). Hold the can upside down when extruding the foam. During application, a distance of 1-2 cm between the nozzle and the substrate must be maintained. The dispensing volume can be controlled by using the gun trigger and the adjustment screw.
- When filling deep joints, apply several layers of foam and moisten between the layers.
- Shake the can regularly during the procedure.
- Keep the PU foam can with the PU foam gun upright after use.

BONDING OF INSULATION PANELS IN INDOOR APPLICATIONS AND EXTERNAL THERMAL INSULATION COMPOSITE SYSTEMS (ETICS)

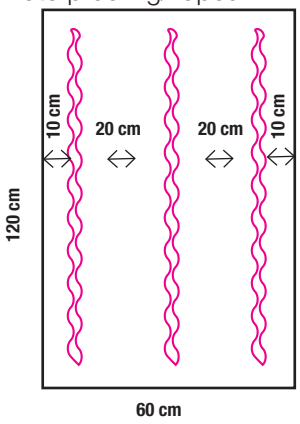
- Bonding of external thermal composite systems must be carried out only after the necessary preliminary study and knowledge. The insulation panels used must be suitable for external thermal insulation (see insulation panel manufacturer's instructions).
- Apply the adhesive foam in beads of at least 30 mm diameter along the edges of the panel (± 3 to 4 cm from the edge) and in the middle parallel to the longest side of the panel so that 40% of the surface is covered after pressing the panel down.
- After applying the adhesive foam to the insulation panel, wait 2-3 minutes and then press the panel onto the façade and bring it into the correct position.
- If additional mechanical fixing of the panels is necessary, this should be done immediately after the insulation panel has been installed on the façade.
- The adhesive foam will be tack-free after 5 minutes. If the adhesive foam is already tack-free before the panel has been installed on the façade, it must be reapplied.
- The insulation panels must be installed row by row from the bottom up to provide them with support. The insulation panels must be mitred at the corners. Please follow the panel manufacturer's instructions.



- During the curing process, the adhesive foam may expand a little. In that case, push the panel back slightly.
- After ± 2 hours, the adhesive foam will be sufficiently cured and work can proceed.

BONDING OF INSULATION PANELS: FLAT ROOF INSULATION

- Bonding of flat roof insulation must be carried out only after the necessary preliminary study and prior knowledge for warm roof applications. The insulation panels used must be suitable for flat roof insulation (see insulation panel manufacturer's instructions). Maximum unevenness between insulation and substrate is 1 cm. Shake the foam can regularly during the procedure. Primer the substrate if necessary (see manufacturer's instructions for roof waterproofing/vapour barrier).
- Commence bonding of the insulation panels at the furthest point from the roof access point, working towards the access point without stepping on the bonded panels.
- Apply the adhesive foam to the insulation panels in beads of at least 30 mm diameter every 20 cm. At corners and edges of the roof, at least twice as much adhesive foam should be applied. In case of uneven substrates, beads of at least 50 mm diameter must be applied so that 40% of the surface is covered after pressing the panel onto the substrate. The use of adhesive foam and the correct number of adhesive beads is determined by EN 1991-1-4, which takes into account the region, roof area, height of building and position on roof.
- After applying the adhesive foam to the insulation panel, wait 2-3 minutes and install the insulation panel on the flat roof within 5 minutes, pressing it firmly into the bead area.
- Do not walk on the panels for at least 2 hours after application.
- If the insulation panels have been moved or displaced during the curing time of the adhesive foam, the foam should be reapplied to the panels to ensure a good bond.
- The roof waterproofing can be applied after complete curing of the adhesive foam.



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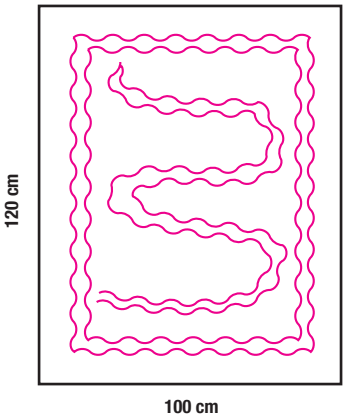
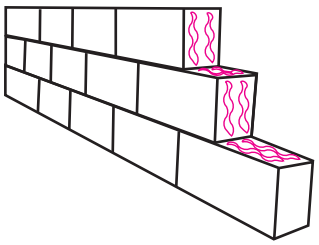
BONDING OF WALL PANELS IN INDOOR APPLICATIONS



- Apply the adhesive foam in beads of at least 30 mm diameter at the edges of the panel. In the middle of the panel, apply the adhesive foam in a w-shape so that 40% of the surface is covered after pressing the wall panel down.
- After applying the adhesive foam to the panel, wait 2-3 minutes and then press the panel against the substrate and bring it into the correct position. The adhesive foam will be tack-free after 5 minutes. If the adhesive foam is already tack-free before the panel has been installed on the substrate, it must be reapplied.
- The panel should be supported until the adhesive foam has fully cured. During the curing process, the PU adhesive foam may expand a little. In that case, push the panel back slightly.
- After ± 2 hours, the adhesive foam will be sufficiently cured and work can proceed.

BONDING OF AERATED CONCRETE BRICKS FOR NON-LOAD-BEARING INTERNAL WALLS

- Parafoam Panelglue NBS is suitable only for the bonding of aerated concrete blocks on non-load-bearing inner walls with a maximum height of 3 m (= 1 storey height). The adhesive foam can be used only when an even distribution of loads from block to block is ensured.
- The bottom row of bricks should be placed with mortar to make them perfectly level.
- For the subsquent rows of bricks, apply the adhesive foam in two beads of 30 mm diameter parallel to the brick edge (± 3 to 4 cm from the edge) on both the horizontal and vertical surfaces of the bricks. Always moisten the brick surface before applying the adhesive foam.



- Wait 2-3 minutes and then position the brick. Do not wait more than 5 minutes.
- Once the adhesive foam that escapes at the sides has hardened, cut it off.
- Each row of bricks must be level. Sand the stones if necessary.
- Shake the foam can regularly.
- The gap between the ceiling and the wall can also be filled with Parafoam Panelglue NBS.

BONDING OF WINDOW SILLS

- Check if the surface is level.
- Use spacers to support the windowsill.
- Apply the PU foam in beads of 30 mm diameter parallel to the edge (± 3 to 4 cm from the edge).
- Place weights on the windowsill until the adhesive foam has fully cured (after ± 2 hours).

Cleaning

- Fresh PU foam spills must be removed immediately within the tack-free time with **Parafoam Gun & Spray Cleaner.**
- Cured PU foam can only be removed mechanically or with **Parafoam remover.**

SAFETY

Safety data sheet available online at www.dl-chem.com

LIMITATIONS

- Does not adhere to PE, PP, PTFE, silicone, oil, grease and similar surfaces.
- Not UV resistant.

TECHNICAL APPROVALS

Test reports flat roof insulation:

- WTCB TDI-21-051-1-DE-TDI-1172: Powerdeck F on Derbicoat HP Selfix
- WTCB TDI-21-051-2-DE-TDI-1172: Eurothane Silver on Derbicoat HP Selfix

* Information sur le niveau d'émission de substances volatiles dans l'air intérieur, présentant un risque de toxicité par inhalation, sur une échelle de classe allant de A+ (très faibles émissions) à C (fortes émissions).

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