



# ORBAFOAM SATE INSULATING FOAM

One-component polyurethane adhesive hardening due to air humidity. The adhesive is manufactured in compliance with requirements of ISO 9001:2008 standard.

## APPLICATIONS

FOR FIXING EPS, XPS IN ACCORDING TO ETICS, FOR FIXING THERMAL INSULATION FOR ROOF AND FLOOR. CONSTRUCTION TRANSVERSAL.

## BENEFITS

▼▼▼ ADHESIVE PRESSURE
▲▲▲ ADHESION TO SURFACE
▲▲▲ THERMAL BRIDGES ELIMINATION
▲▲▲ WORK EFFICIENCY AND CLEAN TECHNOLOGY
▲▲▲ high; ▲▲ increased; ■ normal; ▼▼ decreased; ▼▼▼ low; - no application

## APPLICATION CONDITIONS

Can/ applicator temperature [°C] (optimal +20°C)	+10 - +30
Ambient/ surface temperature [°C]	+0 - +35

## DIRECTIONS FOR USE

Prior to application, read safety instruction presented at the end of TDS and in MSDS.

### 1. SURFACE PREPARATION

- The adhesive should be applied according to the range of ambient temperatures and surface temperatures given in the table below.
- The surface can't be icy, frosted or covered with snow.
- Secure surfaces exposed to accidental adhesive contamination.
- If the surface of the insulation boards is hydrophobic or coated, grind glued surface with abrasive paper in order to improve adhesion.

### 2. PRODUCT PREPARATION

- Too cold can should be brought to room temperature, e.g. by immersion in warm water with temperature up to +30°C or leaving it in room temperature for at least 24 h.
- Applicator temperature cannot be lower than can temperature.

### 3. APPLICATION

- Put on protective gloves.

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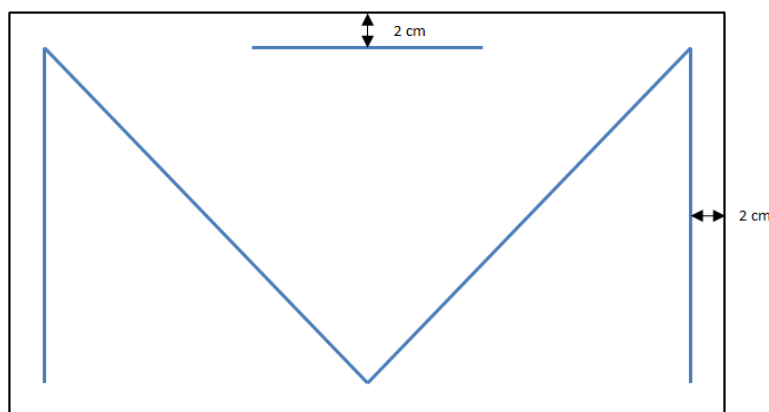
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- Vigorously shake the can (10-20 seconds, the valve facing down) to thoroughly mix the components.
- Screw the can onto the applicator.
- Working position of the can is “valve facing down”.
- Below application mode:

#### FOR BONDING POLYSTYRENE BOARDS TO FACADE WALLS

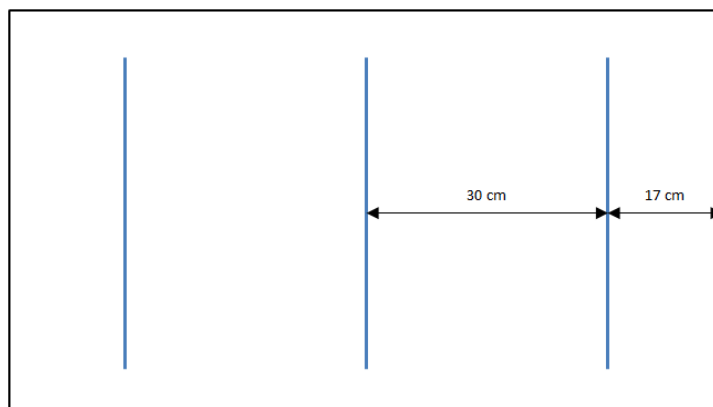
- Apply the adhesive with a bead of ca. 2 cm diameter on the board of foamed polystyrene as shown below:



- Stream volume and pace of application is controlled by pressure force on the applicator trigger.
- If the surface is significantly uneven, apply adhesive twice.
- Immediately after applying the adhesive press board to the wall, crushing the bead of adhesive to half of its thickness and pre-set position of the board. It is essential to avoid complete crushing of the bead of adhesive.
- After a few minutes, using a level or long darby, adjust the final setting of the board by re-pressing and gently pulling it from the ground. Pay attention not to break the bond.
- The board position can be adjusted within about 10 minutes from its first application to the wall.
- The maximum gap thickness: 30 mm.
- The first layer of bonded boards must be supported on the starter strip.
- At lintels, support the boards until the bond cures.
- In case of heavy wind or rainfall use scaffolding mesh.
- Foamed polystyrene boards anchoring depends on specification of used ETIC System and should be established based on technical documentation of the ETICS or European Technical Approvals guidelines ETAG for ETICS.

#### FOR BONDING POLYSTYRENE BOARDS TO ROOFS AND FOUNDATIONS:

- Apply the adhesive with a bead of ca. 2 cm diameter on the board of foamed polystyrene as shown below:



- Stream volume and pace of application is controlled by pressure force on the applicator trigger.
- Immediately after applying the adhesive on the board, join the board with the wall and press slightly using level or long darby (slot up to 15 mm).
- The board position should be corrected within 10 min from joining.
- Foamed polystyrene boards anchoring depends on specification of used ETIC System and should be established based on technical documentation of the ETICS or European Technical Approvals guidelines ETAG for ETICS.

#### 4. WORKS AFTER COMPLETION OF APPLICATION

- Should application be interrupted for more than 5 minutes, the applicator nozzle with fresh adhesive should be cleaned with polyurethane foam cleaner and the can should be shaken prior to application.

#### 5. REMARKS / RESTRICTIONS

- The adhesive working yield depends on several circumstances: air, surface and can temperatures, air humidity and the distance between the foamed polystyrene and the face of the wall, wall leveling. When application temperature is higher, time is reduced. When application temperature is lower and closer to the minimum, correction time may be extended.
- Product does not adhere to polyethylene, polypropylene, polyamide, silicones, Teflon.
- The adhesive is safe for polystyrene board, not destroy them.
- Use acetone Cleaner to remove uncured adhesive. Caution! Cleaners can cause for foamed polystyrene boards by dissolving matter.
- Hardened adhesive may only be removed mechanically (e.g. with a knife).
- Quality and technical condition of used applicator affect the parameters of final product.
- The foam should not be used in spaces without access of fresh air and poorly ventilated, and do not expose to temperatures exceeding 50°C.

## TECHNICAL DATA

Color	
gray	+

Parameter (+23°C/50% RH) <sup>1)</sup>	Value
Capacity (surface coverage) [m <sup>2</sup> ] <sup>2)</sup>	6 - 10
Capacity [m] <sup>2)</sup>	52 - 58
Full cure time [h] (RB024)	24
Open time [min] <sup>3)</sup>	≤ 5
Correction time [min]	≤ 10
Heat conductivity coefficient (λ) [W/m*K] (RB024)	0,036
Mechanical anchoring [h]	2
Flammability class (DIN 4102)	B3
Flammability class (EN 13501-1:2008)	F

Surface*	Adhesion	
Concrete [MPa]	> 0,230	
Cellular concrete [MPa]	> 0,500	
Brick porotherm [MPa]	> 0,200	
Wood (Pine) [MPa]	> 0,350	
Galvanized steel [MPa]	> 0,180	
Cardboard [MPa]	> 0,330	
Extruded styroboards (XPS) [MPa]	> 0,260	
Expanded styroboards (EPS) [MPa]	> 0,080	
Mineral wool [MPa]	> 0,090	
Glass [MPa]	> 0,160	
Cork boards [MPa]	> 0,400	
Bitumen layer with mineral sprinkle [MPa]	> 0,350	
Foam glass insulation board	cohesive failure in the material	
Surface**	Adhesion	
	XPS	EPS
Styroboards (+23°C/50% RH) [MPa]	0,141	0,113
Styroboards (+23°C/50% RH – Max. open time 5 min) [MPa]	0,135	0,107
Styroboards (+5°C/-% RH) [MPa]	0,144	0,121
Styroboards (+35°C/30% RH) [MPa]	0,136	0,111
Surface***	Adhesion	
	XPS	EPS
Styroboards (+23°C/50% RH) [MPa]	0,134	0,130

1) All given parameters are based on laboratory tests compliant with internal manufacturer's standards and strongly depend on foam hardening conditions (ca, ambient, surface temperature, quality of used equipment and skills of person applying the foam). For gaps wider than 3cm values may differ from those declared in the technical data table.

2) Final yield depends on temperatures, humidity, distance between foamed polystyrene and wall and chosen method of covering the panels.

3) Products tested based on guidelines EOTA TR 46. Test methods for PU foam adhesives for External Thermal Insulation Composite Systems (ETICS). The product complies with European Technical Approval Guidelines – ETAG 004.

\*Studies conducted to 3mm wide gap in the external institute, Research Report No LK02-2289/11/Z00NK.

\*\*Studies conducted to 8mm wide gap in the external institute, based on EOTA TR 46. Research Report No N020-032442 (XPS) and N020-032439 (EPS).

\*\*\*Studies conducted to 15mm wide gap in the external institute, based on EOTA TR 46. Research Report No N020-032442 (XPS) and N020-032439 (EPS).



## TRANSPORT / STORAGE

Transport temperature	Foam transport period [days]
< -20°C	4
-19°C ÷ -10°C	7
-9°C ÷ 0°C	10

The foam maintains its usability within 12 months from manufacturing date, provided that it is stored in original packaging in vertical position (valve facing up) in a dry place in temperature +5°C do +30°C. Storage in temperature exceeding +30°C shortens the shelf life of the product, adversely affecting its parameters. The product may be stored in temperature -5°C, no longer however than for 7 days (excluding transport). Storage of foam cans in temperature exceeding +50°C or in vicinity of open flame is not allowed. Storage of the product in a position other than recommended may result in jamming the valve. The can cannot be squeezed or pierced even when it is empty. Do not store the foam in the passenger compartment. Transported only in the trunk.

**Detailed transport information is included in the Material Safety Data Sheet (MSDS).**

The information contained herein is offered in good faith based on Producer's research and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information shall not be used in substitution for customer's tests to ensure that Producer's products are fully satisfactory for your specific applications. Producer's sole warranty is that the product will meet its current sales specifications. Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted. Producer specifically disclaims any other expressed or implied warranty of fitness for a particular purpose or merchantability. Producer disclaims liability for any incidental or consequential damages. Suggestions of use shall not be taken as inducements to infringe any patent.