



# NEXLER STYROPUK Roof

## Adhesive for polystyrene foam and XPS

### TECHNICAL DATA

Correction time	up to approx. 4 min
Pinning	after approx. 2 h
Full hardening	after approx. 24 h
Foam height increase in the gap (expansion degree)	≤ 17,0 mm
Shear resistance	≥ 75 kPa
Shear modulus of transverse elasticity	≥ 75 kPa
Dimensional stability, after 48 h, at a temp. of +70 °C and relative humidity 90 %, in the direction:	
- length	± 1,0%
- width	± 0,5%
- thickness	± 0,5%
<b>Tensile strength perpendicular to the surface, connection: white EPS – adhesive joint (8 mm) – concrete, made of:</b>	
- in laboratory conditions	≥ 0,08 MPa
- in laboratory conditions, after an open time of 4 min.	≥ 0,08 MPa
- at a temp of -5°C	≥ 0,08 MPa
- at a temp. of +30°C and 30% RH	≥ 0,08 MPa
- at a temp. of +30°C, on a concrete base heated to a temp. of +50°C	≥ 0,08 MPa
<b>Tensile strength perpendicular to the surface, connection: white EPS – adhesive joint (15 mm) – concrete, made of:</b>	
- in laboratory conditions	≥ 0,08 MPa
- at a temp. of +30°C, on a concrete base heated to a temp. of +50°C	≥ 0,08 MPa
<b>Tensile strength perpendicular to the surface, connection: XPS – adhesive joint (8 mm) – concrete, made of:</b>	
- in laboratory conditions	≥ 0,08 MPa
- in laboratory conditions, after an open time of 4 min.	≥ 0,08 MPa
- at a temp of -5°C	≥ 0,08 MPa
- at a temp. of +30°C and 30% RH	≥ 0,08 MPa
- at a temp. of +30°C, on a concrete base heated to a temp. of +50°C	≥ 0,08 MPa
<b>Tensile strength perpendicular to the surface, connection: XPS – adhesive joint (15 mm) – concrete, made of:</b>	
- in laboratory conditions	≥ 0,08 MPa
- at a temp. of +30°C, on a concrete base heated to a temp. of +50°C	≥ 0,08 MPa
<b>Tensile strength perpendicular to the surface, connection: AQUA EPS – adhesive joint (8 mm) – concrete, made of:</b>	
- in laboratory conditions	≥ 0,08 MPa
- in laboratory conditions, after an open time of 4 min.	≥ 0,08 MPa
- at a temp of +5°C	≥ 0,08 MPa
- at a temp. of +30°C and 30% RH	≥ 0,08 MPa
- at a temp. of +30°C, on a concrete base heated to a temp. of +50°C	≥ 0,08 MPa
<b>Tensile strength perpendicular to the surface, connection AQUA EPS – adhesive joint (15 mm) – concrete, made of in laboratory conditions</b>	≥ 0,08 MPa
<b>Tensile strength perpendicular to the surface, connection XPS or EPS – adhesive joint (8 mm) – galvanized metal sheet, made of:</b>	
- in laboratory conditions	≥ 0,08 MPa
- in laboratory conditions, on a galvanized metal sheet base heated to a temp. of +50°C	≥ 0,08 MPa
<b>Tensile strength perpendicular to the surface, connection XPS or EPS – adhesive joint (8 mm) – roofing felt, made of:</b>	
- in laboratory conditions	≥ 0,08 MPa
- in laboratory conditions, on a roofing felt base heated to a temp. of +50°C	≥ 0,08 MPa
<b>Tensile strength perpendicular to the surface, connection styrofoam panel with roofing felt – adhesive joint (8 mm) – concrete with bituminous coating, made of:</b>	
- in laboratory conditions	≥ 0,08 MPa
- at a temp. of +30°C, on a concrete base with bituminous coating heated to a temp. of +50°C	≥ 0,08 MPa

<b>Tensile strength perpendicular to the surface, connection plasterboard – adhesive joint (8 mm) – concrete, made of:</b>	
- in laboratory conditions	≥ 0,08 MPa
- at a temp of +5°C	≥ 0,08 MPa
- at a temp. of +30°C and 30% RH	≥ 0,08 MPa
- in laboratory conditions, with modification of the joint thickness (15 mm)	≥ 0,08 MPa
<b>Tensile strength perpendicular to the surface, connections with an 8 mm adhesive joint, made in laboratory conditions:</b>	
- EPS – ceramic brick	≥ 0,08 MPa
- EPS – concrete	≥ 0,08 MPa
- EPS – OSB board	≥ 0,08 MPa
- EPS – wood	≥ 0,08 MPa
- EPS – EPS	≥ 0,08 MPa
- EPS – galvanized steel sheet	≥ 0,08 MPa
- EPS – steel sheet with polyester coating	≥ 0,08 MPa
<b>Tensile strength perpendicular to the surface, connections with an 8 mm adhesive joint, made in laboratory conditions:</b>	
- XPS – concrete	≥ 0,08 MPa
- XPS – XPS	≥ 0,08 MPa
- XPS – galvanized steel sheet	≥ 0,08 MPa
- XPS – steel sheet with polyester coating	≥ 0,08 MPa
<b>Consumption</b>	approx. 10 - 12 m <sup>2</sup> from a can
<b>Can temperature</b>	from +10°C to +25°C
<b>Ambient temperature during application and bonding</b>	from -5°C to +30°C
<b>Substrate temperature except for:</b>	from -5°C to +30°C
- bituminous felt	from -5°C to +50°C
- galvanized steel sheet metal, galvanized steel sheet metal with an organic coating	from -5°C to +50°C
<b>Reference document(s)</b>	ITB-KOT-2023/2595 issue 1

### PROPERTIES

- Single-component, low-pressure
- Ready-to-use
- Resistance to wind suction forces
- Distinguished by short hardening time, which allows for work to be carried out quickly (initial hardening after 2 hours, full hardening after 24 hours)
- Very good adhesion to various substrates
- Can be used in a wide temperature range, especially recommended in periods of cool autumn and spring weather
- Very efficient, easy and comfortable to use



RESISTANT TO SUCTION FORCE



QUICK WORK



VERY EFFICIENT

## APPLICATION

- Fastening EPS and XPS polystyrene boards to flat roof surfaces covered with: metal sheeting, asphalt roofing, seamless bituminous insulation
- Fastening EPS and XPS polystyrene boards to concrete substrates, wooden substrates, OSB, galvanised steel sheet metal, steel sheet metal with organic felt coating
- Bonding of EPS (polystyrene) boards to each other and XPS boards to each other



## PACKAGING

### Poland

- Can: 750 ml
- Quantity per box:  
- 750 ml - 12 pcs.

### Export

- Can: 750 ml
- Quantity per box:  
- 750 ml - 12 pcs.

## METHOD OF USE

### CONDITIONS OF USE

The temperature of the substrate and air during the works should be from -5°C to +30°C. In the case of a substrate made of bituminous felt, galvanised steel sheet metal or galvanised steel sheet metal with an organic coating, work can be carried out at substrate temperatures of up to +50°C.

Works should not be carried out during precipitation, strong sunlight and strong wind.

### SUBSTRATE PREPARATION

Before bonding insulation boards with **STYROPUK Roof**, the surface must be properly prepared. The bituminous felt must be well heated into the substrate. The substrate should be even and levelled. The permissible deviation of the surface from the flatness of the wall must not exceed -4 mm and +2 mm. The deviations are to be measured with a 2 m long patch with an accuracy of 1 mm. The substrate must be clean, free of frost, ice and water stagnation. In addition, it must be free of dust, oil, grease, paint residues and other contaminants that could reduce the adhesion of the adhesive to the substrate.

**STYROPUK Roof** can be applied to seasoned substrates and bituminous coatings fully bonded throughout the whole section. It is not permissible to apply the product to a damp substrate. Substrate moisture adversely affects the foam structure.

Thermal insulation boards to be fastened should have straight edges. EPS boards with reduced absorption and XPS boards should be sanded before the adhesive is applied to increase its adhesion to the surface.

### PRODUCT CONTROL

Check the production date on the packaging before use. The product should not be incorporated beyond its shelf life. Product packaging must not show signs of damage.

### PRODUCT PREPARATION

**STYROPUK Roof** is a ready-to-use product. If stored at low temperatures, the product should be placed in a warm room for a minimum of 24 hours before use. Before bonding, shake the can vigorously (for about 30 s) to thoroughly mix the ingredients. Screw the can onto the gun and dispense in an “upside down” position.

### APPLICATION

Apply **STYROPUK Roof** to the thermal insulation board in at least four vertical braids of approx. 3 cm in diameter. Equal spacing of 20 - 30 cm between the strips should be maintained, while observing a distance of 3 cm from the edge of the board.

For panels wider than 1000 mm, more strips are required. In the corner and edge areas, the strips should be applied more closely, every 15 cm. The recommended number of strips is shown in the table that can be found under DETAILS at the end of this technical data sheet. When applying, maintain a distance of approximately 1 cm between the tip of the gun and the thermal insulation board. Lay the thermal insulation boards alternately. In the case of trapezoidal sheet metal, the adhesive should be applied from the highest point of the upper sections of the profiles. If work is to be interrupted for more than 15 minutes, lock the trigger, leaving the can screwed on until the next use.

Glue the thermal insulation boards to the substrate as soon as possible after the application of **STYROPUK Roof**. Open time, i.e. the time of retention of bonding properties at a temperature of (23 ± 2)°C and relative humidity of (50 ± 5) %, is 4 minutes maximum. Place the board on the insulated roof surface and adjust the alignment if needed. The curing time of the adhesive is approx. 24 hours.

Bonding with **STYROPUK Roof** does not obviate the need for mechanical fixing of the thermal insulation boards if the technical design provides for such fixing.

### CONTROL OF PERFORMANCE

When applying the adhesive, care should be taken to spread it evenly over the surface of the board. In order to obtain the correct bonding strength, **STYROPUK Roof** should be applied in the correct amount, observing the recommended strip width. The boards being bonded should adhere closely to each other and to the substrate.

## TOOLS AND TOOL CLEANING

Gun.

After emptying the packaging, clean the gun with NEXLER STYROPUK Polyurethane Foam Cleaner. If the product is fully hardened, remove mechanically.

## STORAGE AND TRANSPORT

The shelf life of the product is 12 months from production date specified on the packaging. Store in dry and cool rooms equipped with mechanical ventilation, at a temperature of +5°C to +35°C. Store upright, in tightly sealed, original packaging. The product must be protected from heat and direct sunlight.

## NOTES

Works should be carried out in accordance with technical conditions, manufacturer's instructions, health and safety standards and regulations. For information on how to deal with symptoms of disease, allergies or irritation of the skin or eyes, please refer to the Safety Data Sheet ([www.nexler.com](http://www.nexler.com)).

The remaining content of the product and container should be handed over to authorized companies.

## GENERAL RECOMMENDATIONS

Technical data and information on the method of use are given for a temperature of 23°C ± 2°C and a relative air humidity of 50%. Under different conditions the processing time and the hardening process may change significantly.

The material consumption depends on the ambient temperature, the humidity of the air and the substrate, the temperature of the can, the evenness of the substrate and the cross section of the layer applied. Hardened polyurethane foam should not be exposed to prolonged sunlight. The UV resistance of the foam depends on the exposure time. Bituminous felt coverings should be checked for any detachment of mineral toppings. The topping should be permanently bonded to the felt.

## SAFETY INFORMATION

Extremely flammable aerosol. Pressurised container: May burst if heated. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. Suspected of causing cancer. May cause harm to breast-fed children. May cause damage to the respiratory system through prolonged or repeated exposure if inhaled. Very toxic to aquatic life with long lasting effects. If medical advice is needed, have product container or label at hand. Keep out of reach of children. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Do not breathe gas/vapours. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. IF ON SKIN: Wash with plenty of water and soap. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Protect from sunlight. Do not expose to temperatures exceeding 50 °C. Dispose of contents/container to by disposing in a hazardous waste receptacle.

## IMPORTANT INFORMATION

Please refer to the detailed conditions of use of the product before use.

We guarantee the quality of our materials as part of our terms of sale and delivery.

For buildings with special requirements that are not covered by this manual, we provide our Customers with our own professional advisory service.

The manufacturer has no influence on the improper use of the material, its use for other purposes or under conditions other than those described above. The guarantee only covers the quality of the delivered product. The correct and therefore effective use of the product is not subject to our control.

Neither the manufacturer nor his authorized representative may be held liable for any loss incurred as a result of improper use or storage of the product.

Employees of the company are authorized to provide technical information only and solely in accordance with this technical data sheet. Information other than that contained in this sheet should be confirmed in writing.

If you have any doubts, consult the manufacturer.

Once we have issued a new technical data sheet, this manual is no longer valid.

## CONTACT DETAILS

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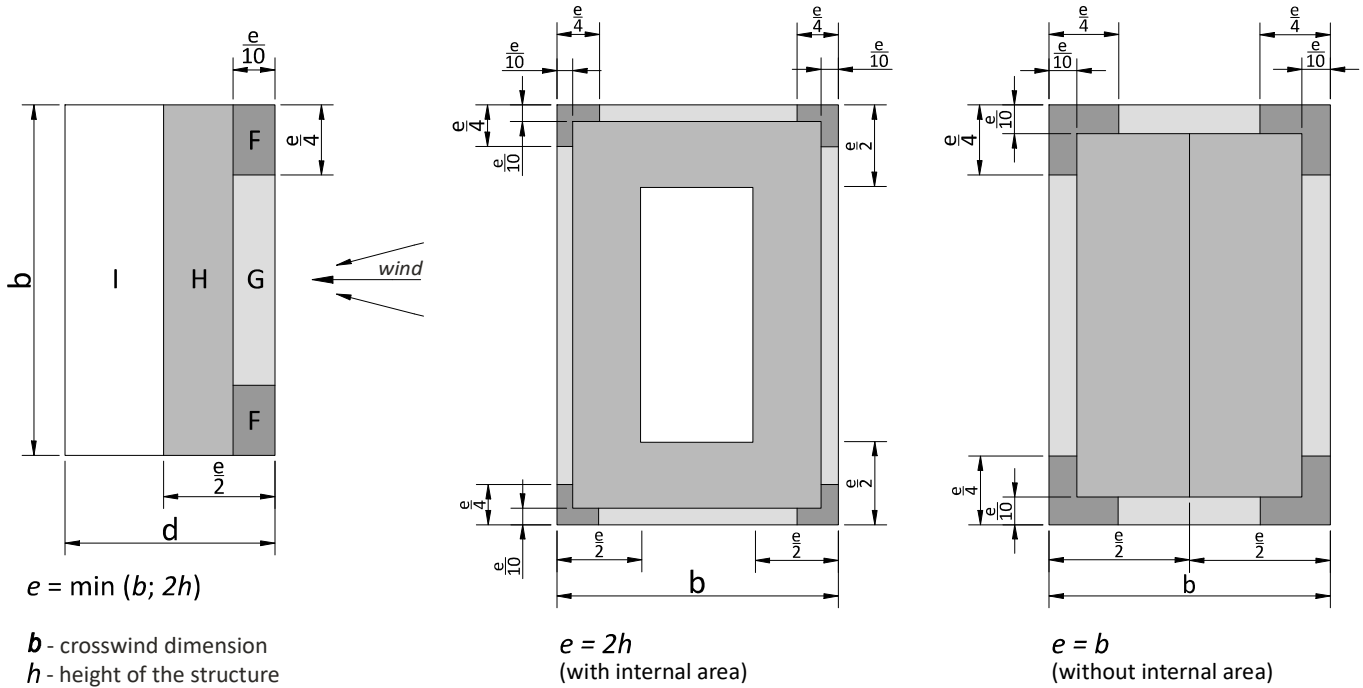
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## DETAILS

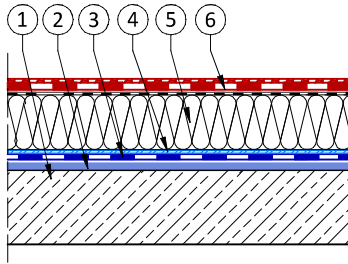
### Recommendations for the number of adhesive strips depending on building height and roof zone

Height of the structure	Internal area (I)	Inner perimeter area (H)	Inner outer area (G)	Corner area (F)
	number of adhesive strips			
wind zone 1 (all terrain categories)				
up to 20 m	3	3	4	5
over 20 m	individual calculation			
wind zone 2 (terrain categories from 2 to 4)				
up to 12 m	3	3	4	5
from 12 to 20 m	3	3	5	6
over 20 m	individual calculation			
wind zone 3 (terrain categories from 2 to 4)				
up to 12 m	3	3	5	6
from 12 to 20 m	3	4	6	7
over 20 m	individual calculation			

### Roof zones depending on suction direction (according to EN-1991 1-4)

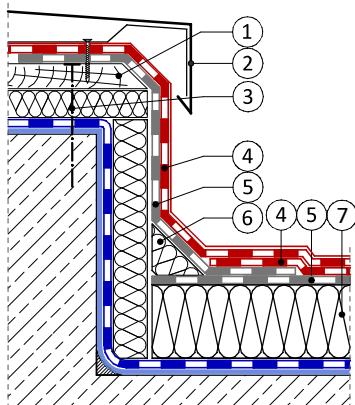


### Detail of roof cross-section



1. Concrete substrate
2. Priming layer of NEXLER BITFLEX Primer
3. Vapour barrier – NEXLER Alu S40
4. Polyurethane foam **NEXLER STYROPUK Roof**
5. Thermal insulation
6. Weldable top layer bituminous felt – NEXLER PREMIUM PYE PV250 S53H

### Detail of attic cross-section



1. Impregnated wooden element
2. Flashing
3. Fasteners for the wooden element
4. Weldable top layer asphalt felt, modified with SBS
5. Weldable underlayer asphalt felt
6. Wedge of thermal insulation material
7. Thermal insulation bonded to **NEXLER STYROPUK Roof**