PU-SCHAUM ENERGY FOAM

> 30% more efficient
> High initial adhesion
> Building material class B1
> Thermal conductivity of 0.035 W (m·K)

Product description

Ready-to-use, self-expanding PU adhesive for efficient, quick and secure adhesion of insulating panels. The product is characterised by high initial adhesion and reduced post expansion. Furthermore, the fire behaviour (building material class B1 - flame retardant according to DIN 4102) as well as the thermal conductivity of 0.035 W/ m·K (ideal for joint filling without losses) are optimised for use as insulation panel adhesive.
The solvent-free and very low emission foam (EC1R Plus) is also waterproof, flexible, mould- and rotresistant, does not become brittle, but is UV-resistant.
Due to these excellent characteristics, the product is also suitable for the adhesion of dry construction board and breeze blocks.
For horizontal and vertical adhesion of insulation panel based on polystyrene (EPS + XPS), polyurethane (PUR/PIR) and phenolic resin hard foam in the application area flat roof, perimeter, facade, insulation/drainage elements, cellar covers and interior insulation.
Also for the adhesion of
- Plasterboard /gypsum fibre board in dry building
- Non-load-bearing internal walls, such as separating walls, privacy screening walls, cellar bar counter, brick shelving, etc. made from shaped bricks (aerated concrete, sand-lime brick, gypsum ...)
- For filling cavities between individual heat insulation elements.

Delivery format:

Container	Outer packaging	Pallet
12 Pcs. / BDO	12	624

Storage:
Can be stored frost-free, cool and dry on wooden shelves in unopened original container: 365 days

Processing

Recommended tools:
PU foam gun.
Clean before hardening with foam cleaner gun.

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Processing:
Screw the nozzle firmly onto the thread of the gun and, with the gun pointing downwards, shake vigorously approx. 20x, so that the contents of the container are well mixed, the adhesive quality is optimised and the yield is high. Use the adjusting screw to adjust the gun to the desired diameter for the adhesive bead (the emptier the container is, the further the adjusting screw has to be turned). Keep the gun as upright as possible during the application and keep a distance of 1-2 cm while spraying on.

Adhesion of insulation panels:
ENERGY FOAM is applied along the edge of the insulation panel and within this in the shape of a "W". Wait 2 - 8 minutes (climate-dependent) and then press the insulation panel onto the wall. After pressing the insulation panel on there is an adhesion surface section of at least 40%, which therefore meets the thermal insulation system execution standard ÖNORM B 6410. If required, after 10 to 15 minutes the insulation panels laid can be aligned with a long spirit level to correct a possible post-expansion of the adhesive. In case of interruptions / work breaks, we therefore recommend fixing the last insulation panels laid.
Please heed the statements made in ÖNORM B 6410 when laying the panels.

Adhering dry construction boards:
Apply ENERGY FOAM at approx. 2 cm distance to the panel edge in the form of three adhesive beads lengthwise with approx. 30 mm diameter to the dry construction board. After application of the adhesive, allow it to air dry for approx. 3-6 minutes, depending on the climatic conditions. This achieves optimum adhesive strength with reduced post-expansion. Then place the dry construction board on chocks, align and press down from bottom to top. Check if correctly seated after approx. 6-10 minutes, readjust with spirit level/builder's square, if required.
Can already be processed further after min. 1 hour drying time (e.g. filled).

Adhesion of gas concrete blocks:
Clean the adhesive surfaces, remove loose parts and moisten. Apply two glue beads of ENERGY FOAM of approx. 30 mm diameter to the substrate and then to all other blocks. The adhesive beads are to be applied approx. 50 mm from the edge of the block parallel to vertical and horizontal joints. Always place blocks within min. 2 to max. 8 minutes (climate-dependent), put them together and align. If blocks that were placed are removed again, a new bead of adhesive must be applied. It is best to leave adhesive residue which has escaped from the side to harden and then simply scrape it off with a spatula, for example. Depending on the ambient temperature, you may continue processing after min. 60 minutes. Full loading is possible after min. 12 hours.

ATTENTION: ENERGY FOAM may not be used for components which require permits, such as load-bearing and safety-relevant walls!

Technical data

fully load-bearing	approx. 12 hrs for 30 mm bead of adhesive
Chemical base	1K polyurethane
Colour	orange; stable consistency
Tensile strength	0.19 N/mm² (DIN EN 1607)
Shear strength	0,142 N/mm² (DIN EN 12090)
Temperature resistance	-40 °C to +90°C, +120 °C (for max. 1 hr)
Drying time	Hardening speed approx. 30 min for 30 mm bead of adhesive
Non-tackiness of the surface	approx. 8 min for 30 mm bead of adhesive
Can be cut	approx. 50 min for 30 mm bead of adhesive

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Thermal conductivity	ca. 0,035 W/(m·K) (DIN 52612)
Shear modulus	0,489 N/mm² (DIN EN 12090)
Building material class	B1 (schwer entflammbar) (DIN 4102-1)

Substrate

Suitable substrates:
Mineral substrates
Concrete, aerated concrete
Lime cement and cement plasters P II & P III
Weight-bearing coatings
Thermal insulation systems
Lime/gypsum plaster
Plasterboards and gypsum plasterboards (pre-treatment required)

The substrate must be dry, frost-free, solid, weight-bearing, dimensionally stable, free of dust, dirt, oil, grease, release agents and loose parts, and it must comply with the applicable technical national and European directives, standards and "generally accepted rules of the trade".

Product and processing instructions

Material information:
- If processing outside the ideal temperature and/or humidity range the material properties could change markedly.
- Bring the materials to the proper temperature before processing!
- In order to maintain the product properties, do not add any foreign materials!
- Water dosing quantities or dilution information must be strictly adhered to!
- Check tinted products for colour accuracy before application!
- Colour consistency can only be guaranteed within the same batch.
- The colour formation is significantly impacted by the environmental conditions.
- For longer interruptions, shake the container to get the desired quality characteristics!
- At high temperatures and low air humidity, full hardening can be accelerated by lightly spraying the adhesive bead with water.
- Before each further coating, a pot life of min. 2-3 days (depending on the temperature and air humidity) is to be kept. It is especially important that the coating produces a uniform, dry appearance without wet patches (dark spots on the facade).
- Facade insulation panels which have been exposed to UV radiation for more than two weeks (yellowed panels) may not be smoothed; you must first grind and dedust again.

Environmental information:
- Do not process at temperatures below +5 °C!
- The air, material and substrate temperature must be +5 °C during processing and the setting process.
- The ideal temperature range for the material, substrate and air is + 15 °C to + 25 °C.
- The ideal relative humidity range is 40% to 60%.
- Increased air humidity and/or lower temperatures may prolong the drying, setting and hardening time, while lower air humidity and/or higher temperatures will speed it up.
- Ensure adequate ventilation during the drying, reaction and hardening phase; avoid draughts!
- When processing indoors, always ensure sufficient fresh air. Wear protective goggles and gloves.
- Before starting work protect areas adjacent to the work area from contamination.
- Protect facade from direct sunlight, rain and strong wind (e.g. via scaffolding protection net).
- With strong gusts of wind, ensure that the light Energy FOAM cannot contaminated components, objects or people in the vicinity.
- Protect adjacent components!

Tips:
- We recommend using a test surface first or a small area for initial, small-scale testing.
- Please heed the product data sheets of all MUREXIN products used in the process.
- Keep a genuine original container of the respective batch for later repair work.

The information provided reflects average values that were obtained under laboratory conditions. Due to the use of natural raw materials, the indicated values of individual deliveries may vary slightly without impacting the product suitability.

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Safety instructions

Limiting and monitoring exposure
Personal protective equipment:
General protection and hygiene measures:
- Common safety measures for handling chemicals are to be observed.
- Keep away from foodstuffs, beverages and feedstuffs.
- Take off contaminated, impregnated clothing immediately.
- Wash your hands before taking breaks and when finishing work.
- Avoid contact with the eyes and skin.

Breathing protection:
- Wear breathing protection in case of inadequate ventilation.

Hand protection:
- Protective gloves.
- Use gloves made from stable materials (e.g. nitrile).

Glove material
- Butyl rubber
- Nitrile rubber

Penetration time of the glove material
- The precise penetration time is to be found out from the protective glove manufacturer and complied with.

Eye protection: protective goggles.
Body protection: protective clothing.

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Please observe the current, technical, national and European standards, guidelines and data sheets regarding materials, substrates and the subsequent construction. Please contact us if you have any reservations or doubt. This version is rendered invalid if a new version is released.
The most recent data sheets, safety data sheets and the terms and conditions are available online at www.murexin.com.

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