

## EXPERT LINE PIANOSTYR

### Polyurethane Foam Adhesive for Polystyrene Boards

#### PRODUCT DESCRIPTION

One-component low pressure polyurethane adhesive Expert Line PIANOSTYR with gun applicator designed for bonding of polystyrene foam boards in thermal insulation systems based on BSO method and XPS and EPS boards when heat-insulating foundations and underground parts of buildings, cellars, etc.

#### APPLICATION

- › fastening white expanded polystyrene boards (EPS) and extruded polystyrene boards (XPS) when insulating external walls of buildings using the jointless method (ETICS);
- › fixing Styrofoam ceiling tiles and wall panels;
- › installation of window sills;
- › filling gaps in thermal insulation;
- › in ground floor (foundation) insulation systems using extruded polystyrene boards (XPS) and expanded polystyrene boards (EPS);
- › fixing plasterboards to concrete substrates.

#### PRODUCT PROPERTIES

- › Adhesive has excellent adhesion to concrete, ceramic and wooden substrates, as well as to PVC and all types of polystyrene, plasters and substrates with bituminous coating, roofing felt and asphalt insulating masses.
- › After 2 hours after bonding, initial hardening is achieved, allowing the continuation of work related to sanding and pinning the boards or securing the foundation.
- › Full hardening of the polyurethane joint is achieved after 24 hours.

## Technical Data Sheet (TDS)

### POLYURETHANE ADHESIVE

#### TECHNICAL PARAMETERS

Colour	Light yellow
Working temperature	from -5°C to +30°C
Can temperature	optimally +20°C
Correction time	about 4 min (23°C, RH 50%)
Mechanical fixing time	after about 2 h
Full hardening time	24 h
Adhesive yield* * depends on air humidity and temperature, can temperature, quality of foam dispensing gun, worker's skills	- For ETICS: up to 8 m <sup>2</sup> - For foundation: up to 12 m <sup>2</sup>
Tensile strength	≥ 80 kPa
Shear strength	≥ 75 kPa
Solubility in organic solvents	acetone, before hardening

*The above table is for informational purposes only*

#### DELIVERY FORM | PACKAGE

Aerosol can, 750 g

#### DIRECTIONS FOR USE

##### **Substrate preparation:**

The substrate should be clean, dry, free of dust, dirt, soiling, oils, greases, paint residues and other contaminants (anti-adhesives in particular) that may cause insufficient adhesion of the adhesive to the substrate. Check the adhesion of the existing coatings or plaster, old layers must be removed. Before adhering polystyrene board, start fixing profile must be installed. Before bonding of boards at low temperatures remove the frost from the surface. In the case of substrates coated with bitumen (with unknown parameters) check the adhesion – apply polyurethane adhesive to the board and join with the previously prepared fragment of the substrate and after 2 hours (minimal duration) perform a test to break the adhesive bond. The bituminous substrate must be seasoned, well-connected, and moisture evaporated from the entire thickness of the coating. In the case of hydrophobized or coated insulation boards it is necessary to sand the surface to be bonded with the adhesive, for example, with sandpaper (with a rasp intended for styrofoam) to increase to adhesion of the adhesive to the surface.

##### **Product preparation:**

Before use, warm the can with foam adhesive to room temperature (optimally +20°C) by, for example, immersing the can in warm water. Shake the can vigorously for 30 seconds to thoroughly mix the ingredients. Screw the can onto the expanding foam gun.

##### **Adhesive application:**

##### General recommendations:

Dispense the adhesive in the 'upside down' working position. Adjust the adhesive flow by adjusting the knob or pressing the trigger of the application gun. If application is interrupted for more than 15 minutes, secure the

## Technical Data Sheet (TDS) POLYURETHANE ADHESIVE

foam dispensing gun, leaving the can screwed on the gun until the next use. When work is complete, clean the gun of adhesive residue with PU Expert Line Foam Cleaner

### Fixing expanded polystyrene boards by the BSO method:

Apply a bead of adhesive (approx. 3 cm wide) around the perimeter of polystyrene boards (approx. 2 cm from the edge), with an additional bead across the centre of the board. The bonding area should not be less than 40%. Make about 5 cm breaks in strings as shown in the Figure No 1:

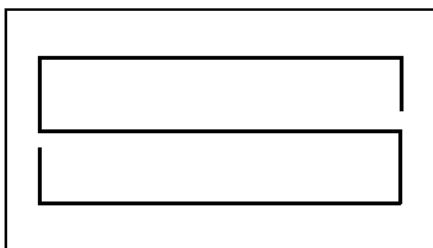


Fig. 1

The thickness of the joint should be (after join the polystyrene boards with the wall) 8 or 15 mm. After applying the adhesive beads, wait approx. 3 minutes (temperature 20 °C) or 5 minutes (temperature -5 °C), then put it on the insulated wall and correct the position with an assembly batten. The board position can be precisely corrected (without removing from the bonding surface) within 4 minutes from joining it to the wall. After 2 hours the boards are ready for further processing (sanding with an dedicated abrasives and fixing with special mechanical connectors). After completion of the work, clean the dispensing gun using cleaner for polyurethane foams.

The works employing the adhesive should not be carried out during atmospheric precipitation and strong sunlight.

### Fixing of Thermo-Insulation to Foundation:

Apply the adhesive in 4 vertical beads (see Figure No 2) approx. 3 cm wide maintaining equal spacing of 20-30 cm. Ensure 3 cm clearance from the edge of the board (for boards wider than 100 cm, more beads of adhesive should be applied).

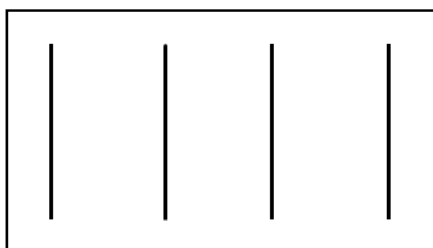


Fig. 2

After applying beads of adhesive, it is necessary to wait about 3 minutes (at the temp. of 20 °C) or 5 minutes (at the temp. of -5 °C), and then the board should be placed on the surface insulated and the board's position should be adjusted. The board position can be precisely corrected (without removing from the bonding surface) within 4 minutes from joining it to the wall. At lintels and in the corners, support the boards (approx. 10-15 minutes) until the bond cures. After 2 hours the boards are ready for further processing. Additional mechanical fixings are required in the plinth area and along the edge of the building. Fill the gaps and joints between the bonded boards using adhesive.



## Technical Data Sheet (TDS) POLYURETHANE ADHESIVE

The works employing the adhesive should not be carried out during atmospheric precipitation, strong sunlight, in case of continuous exposure to water, eg. in the performance of waterproofing or high status of the groundwater.

**ATTENTION:** The thermal insulation boards to be fixed should have straight edges. The substrates prepared for bonding the boards should be flat, even, well cleaned and dust-free. The permissible deviation from flatness of the wall surface may not exceed -4 mm and +2 mm. Deviations should be measured with a traversing rule 200 cm with an accuracy of 1 mm. In the case of walls with excessively uneven surfaces, a leveling (filling) layer should be applied.

### STORAGE AND EXPIRY DATE

Store in a dry, cool and well-ventilated place, in an upright position, in the original closed container. Keep away from heat, open flames and other ignition sources. Recommended storage temperature is from +5 °C to +30 °C (optimally +20 °C). Storing the product in conditions other than recommended may result in shortening its lifetime by up to 3 months. Do not store the product in the cabin of a car. Transport only in the trunk.

Expiry date: 15 months. Store and use before the expiry date indicated on the bottom of the container.

### HEALTH AND SAFETY RECOMMENDATIONS

When using this product, normal occupational hygiene rules should be followed. Keep out of reach of children. Before use, familiarize yourself with the conditions for safe use of the product on the packaging and in this technical data sheet. Detailed information on the safety of use and hazards posed by the product is included in the Material Safety Data Sheet.

*With the publication of this data sheet, all previous editions become invalid. Release: 01/25*

The product information contained in the technical data sheet is the result of conducted research. With regard to the possibility of using the product (point 3 of this technical data sheet), they should be treated only as recommendations resulting from the manufacturer's experience. Due to the numerous application possibilities and a wide range of work methods using the product, the Manufacturer does not bear any responsibility in this respect, and in particular is not responsible for the consequences of improper use of the product or the effects of work involving the product. Product information is valid only in its most current version.

**RYTM TRADE Sp. z o.o.**  
ul. Strefowa 14  
43-100 Tychy | Poland  
Tel.: +48 32 324 00 60 /61

**WWW.RYTMTRADE.COM**