Soudabond Turbo Gun

Technical data

Basis	Polyurethane
Consistency	Stable foam adhesive , thioxotrpic
Curing system	Moisture curing
Skin Formation (EN 17333-3)	3 min
Cutting Time (EN 17333-3)	20 min
Insulation factor (DIN52612)	34 mW/m.K
Can be walked upon after	About 30 minutes
Yield	Up to 14 m²
Shear strength (EN 17333-4)	Ca. 36 kPa
Tensile Strength (EN 17333-4)	Ca. 70 kPa
Temperature resistance**	-40 °C till +90 °C (cured) 120 °C (max 1 hour)

** This information relates to fully cured product.
Measured at 20 °C / 65 % R.H. These values may vary depending on ambient factors such as temperature, humidity and type of substrate.

Product description

Soudabond Turbo Gun is a ready-to-use, single component, polyurethane adhesive foam for clean, efficient and economical permanent bonding of insulation panels other building materials in building and construction. Soudabond Turbo Gun is specifically developped in such a way that it cures up to 3 times faster than a standard adhesive foam.

Properties

- Easy and fast to apply (saving of up to 30 % in labour time).
- One can glue up to 14 m² of insulation.
- Good adhesion on all surfaces (except PE, PP and PTFE).
- Open time: Max 3 min
- Fast curing, work can continue about 30 min after application.
- Economical in use due to the precise application with a gun.
- Very precise to dose.
- Limited post expansion for fast and precise installation of insulation panels and plasterboard.
- Levels uneven surfaces.
- Does not age or rot, but should not be exposed to UV radiation.
- Resistant to cold and heat
- Resistant to a variety of solvents, paints and chemicals.
- Also suitable for joint filling (thermal conductivity 0,034 W/m.K)
- Freon free (not harmless to ozone layer and greenhouse effect)
- Extremely light
- Water repellent but not waterproof.
- Remains flexible, does not become brittle.
- Solvent free
- Doesn't attack polystyrene.
- No need for electricity and water (to mix)
- Replaces mortar. Cheaper than the traditional systems.
- Substantial space and weight savings compared to conventional PU adhesives, bonding mortars, etc.

Applications

Excellent solution to glue smaller decoration against walls and ceilings: e.g. Rosettes, Skirting Boards, ...
Clean, efficient and economical permanent bonding of insulation panels.

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Suitable for bonding polystyrene (EPS + XPS), polyurethane (PUR/PIR) and phenol resin foam based insulation panels for flat roofs, perimeters, facades, insulation/drain elements, cellar ceilings, internal insulation, etc.
Suitable for bonding small gypsum plasterboard/gypsum fiberboard in dry lining applications.
Suitable for bonding small non-load bearing walls, e.g. partition walls, screen walls, cellar bars, stone shelves, etc., of rectified blocks (aerated concrete, sand-lime brick, gypsum, stone, concrete, hollow bricks ...).
Fills cavities between individual thermal insulation panels.
Installing of sockets.

Packaging

Colour: orange
Packaging: 750 ml aerosol (net)

Shelf life

24 months unopened and stored in dry and cool conditions (Between 5 and 25 °C), Upright storage is recommended. After application, just lock the gun and it's closed. If the product will not be used within the following week, clean can and gun with Soudal Gun & Foam Cleaner. After cleaning, remove the Soudal Gun & Foam Cleaner and empty the gun completely.

Application method

Gluing

Substrates:
All usual substrates such as concrete, masonry, stone, plaster, wood, cold bituminous thick coatings, sand or slate surfaced bituminous sheeting, polystyrene, polyurethane and phenol resin foam, corrosion protected steel sheeting, fibre cement, gas concrete, particle board, plasterboard, gypsum fiberboard, fibre cement, hard PVC and emulsion paints.

Adhesive surfaces must be stable, clean, without bubbles and free of separating agents such as talcum, grease, oils, etc. Suitable are building moist, but not wet (water film, standing water) substrates. Any cement slurries and sinter layers on mineral substrates must be removed mechanically. Bubbles in bituminous sheeting must be removed. To ensure perfect adhesion, the bituminous sheeting should have a fully covered surface. Does not adhere to PE, PP. PTFE and silicone.
All substrates should be tested for suitability with regard to adhesion and compatibility.

Directions for use:

General

Prior to using the product, cover all adjacent areas for protection against soiling. In windy conditions, precautions must be taken to ensure that Soudabond Turbo Gun cannot contaminate components, objects or persons in the vicinity.
Good ventilation must be ensured for indoor use. Wear protective goggles and gloves.
Tightly screw the can to the thread in the gun and shake the gun about 20 times downwards so that the contents are mixed well to ensure an optimum adhesive quality and high yield.
After extended periods of non-use, the gun must be shaken again to obtain the required adhesive quality! With the adjusting screw on the gun, adjust the adhesive bead to the required diameter. (The emptier the can, the more the adjusting screw needs to be opened).
The gun must be held vertical during application.

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A distance of 1 to 2 cm must be maintained between the gun nozzle and insulation panel/substrate while spraying. Apply pressure to the insulation panel within about 3 minutes (20°C-65% R.H. – this time is shorter at higher temperature/humidity and longer at lower temperature / humidity). Do not tap or remove and reapply panels as this will damage the adhesive structure and reduce the adhesive strength substantially. At high temperatures and low humidity in particular, curing can be accelerated by lightly spraying the adhesive bead with water.

1. Bonding flat roof insulation materials

Apply Soudabond Turbo Gun directly to the substrate. Pressure should be applied to the insulation panels for optimal contact. The panels must not be subjected to traffic for about 30 minutes.

Consumption: At least three uniform adhesive beads with a minimum diameter of 30 mm are required per sqm adhesive surface. The number of adhesive strips, according to DIN 1055, part 4, depend on the region, roof area, structure height, corner and edge areas as well as the materials to be bonded.
The amount of adhesive to be applied depends on the wind load and must be increased in corner and edge areas.

2. Perimeter insulation

Soudabond Turbo Gun facilitates the installation of insulation panels in perimeter areas according to DIN 4108-2. (Not suitable for pressing water!).

Spray Soudabond Turbo Gun from bottom to top with a bead spacing of about 25 cm (minimum three beads per continuous panel or minimum two beads for short panels!) on to the insulation panel or cellar wall. Press the insulation panel lightly against the cellar wall. Work from bottom to top without gap. The insulation panels must be bonded staggered in corners of buildings. The installed insulation panels can be readjusted with a long spirit level to correct any post expansion of the adhesive within 3 minutes.
The insulation achieves its final strength through the pressure of the filled soil, gravel or similar. Filling must take place within 14 days after bonding.

3. Cellar ceiling insulation

For working overhead, suitable protective goggles must be worn!

Soudabond Turbo Gun has a very high initial bonding strength and is therefore ideal for permanent bonding of insulation panels to cellar ceilings, garage ceilings or other overhead areas, also without additional mechanical fastening. Suitable are all standard insulation panels of polystyrene (EPS and XPS) and PUR/PIR measuring maximum 600 x 1200 mm with a maximum thickness of 100mm and a maximum weight of 400g. Larger and heavier insulation panels and/or additional surfaces should be fixed mechanically within 15 minutes. This is easily done using ceiling supports for example. Prior to application, the substrate stability must be verified. This can also take place with a sealing tape test.

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In this test, sealing tape is applied to the substrate and quickly pulled off again. If old paint or plaster adheres to the adhesive tape, this means that the substrate does not have the necessary stability and must be reinforced or removed. With chalking and highly absorbent substrates, the substrate adhesion can be improved with a deep solvent primer. Protruding concrete burr must be removed mechanically.
At least one circular and one angular adhesive foam bead with a minimum diameter of 30 mm (about 40 g per panel) must be applied to each panel. Do not apply the adhesive too close to the outer edges to avoid the excess going over the edges when pressure is applied to the insulation panel. Before bonding the insulation panel to the ceiling, Soudabond Turbo Gun must be allowed to stand for 1,5 to maximum 2,5 minutes to achieve the required initial strength. The insulation panel can subsequently be bonded to the ceiling. The panel must be placed carefully in the required position and pressure applied without tapping (damages the adhesive structure). The next insulation panel must be bonded 5 minutes after the previously bonded panel so that it remains in place when the next panel is bonded. Insulation panels must be additionally fixed in the centre with a suitable insulation anchor under unfavourable bonding conditions.

4. Interior insulation/dry lining

Prior to application, the substrate stability must be verified. This can also take place with a sealing tape test. In this test, sealing tape is applied to the substrate and quickly pulled off again. If old paint or plaster adheres to the adhesive tape, this means that the substrate does not have the necessary stability and must be reinforced or removed. With chalking and highly absorbent substrates, the substrate adhesion can be improved with a deep solvent primer. Remove protruding concrete burr or excess plaster. Soudabond Turbo Gun levels uneven surfaces up to 30 mm.

Apply Soudabond Turbo Gun about 2cm away from the edge of the panel as a 30mm circular bead and to the panel surface in lines or a W-shape. It must be ensured that the adhesive contact area is about 40% after applying pressure. The adhesive must always be applied circular also for panel cut-outs, penetrations, etc., to prevent rear circulation of the interior insulation. After applying Soudabond Turbo Gun, depending on the climatic conditions, allow to flash off for about 1 to 2 minutes. This ensures that an optimal adhesive strength is achieved with reduced post expansion. Subsequently place the insulation panel on wedges, align and apply pressure from bottom to top. Do not tap or remove the panels as this can reduce the adhesive strength substantially. Apply new adhesive if necessary. After about 6 to 10 minutes, check for correct seating, readjust with a spirit level/level. Edges of walls, ceilings and floors, openings and penetrations must be filled out completely with Soudabond Turbo Gun air-tight and sound insulated. Work can be continued after minimum 30 minutes.
Soudabond Turbo Gun can also be used for mounting electrical installation boxes.

5. Construction block bonding

Soudabond Turbo Gun must not be used for components requiring approval, e.g. supporting walls and walls relevant for safety!
Good ventilation must be ensured for indoor use!

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Clean the adhesive surfaces, remove lose particles and moisten. Apply two Soudabond Turbo Gun adhesive beads with a diameter of about 30mm to the substrate and subsequently to all further concrete precision blocks. The adhesive beads must be applied about 50 mm away from the stone edge parallel on horizontal and vertical joints. Position/join and align bricks within 3 minutes (20°C/65% R.H. – this time is shorter at higher temperature/humidity and longer at lower temperature/humidity). If once joined bricks are removed, new adhesive beads must be applied. Allow excess adhesive to cure and subsequently remove, e.g. with a spatula. Depending on the ambient temperature, work can be continued after minimum 30 minutes. The adhesive achieves full strength after minimum 12 hours.

6. Other applications

Due to its excellent adhesive properties, reduced foaming and fast final strength, Soudabond Turbo Gun is suitable for numerous bonding applications. Soudabond Turbo Gun is ideal for the installation of smaller decorative elements, insulation panels in building and construction. Installation of loft insulation reveals and claddings as well as bonding of wall edging strips are just a few examples.

General note: Do not load/subject the bond to traffic within the curing time of about 1 hour! All open joints within the insulation can be filled out with Soudabond Turbo Gun. Trim protruding, fully cured adhesive with a sharp knife. Soudabond Turbo Gun can be painted or plastered after curing.

Filling

Shake at least 20 seconds with the can upside down to ensure proper mixing of the ingredients and maximum yield.
Thread the can tightly to the Applicator Gun.

It's recommended to shake the can after each work interruption.
When the product is applied in multiple layers, moisten the surface between each layer.
If not yet cured, use Soudal Gun and Foam Cleaner for cleaning. Cured adhesive should be removed mechanically.

Can temperature: +5 °C - 35 °C
Ambient temperature: +5 °C - 30 °C.
Surface temperature: +5 °C - 35 °C

Health- and Safety Recommendations

Take the usual labour hygiene into account. Always wear gloves and goggles. Remove cured foam mechanically. Never burn away. Consult label and material safety data sheet for more information. When vaporizing (for example with a compressor), additional security measures will be required.

Standards and certificates

M1 Emission classification of building materials

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