



Soudabond Easy 1K Gun

Product description

Soudabond Easy 1K Gun is a ready-to-use, single component, self-expanding polyurethane adhesive for clean, efficient and economical permanent bonding of insulation panels and plasterboard in building and construction.

Properties

- Cuts working time by up to 30%
- Excellent initial bond, even at low temperatures
- Economical in use due to precise application
- One can covers up to 14 m² of insulation
- Suitable for vertical applications
- Can be applied at temperatures between -5 °C and +35 °C
- Good thermal conductivity which enhances performance of insulation panels when filling gaps
- Remains flexible, does not become brittle
- Levels uneven surfaces
- Limited post expansion for fast and precise installation of insulation panels and plasterboard
- Substantial space and weight savings compared to conventional bonding mortars, etc.
- Fast curing, work can continue about 1 hour after application
- Solvent-free
- Resistant to a variety of solvents, paints and chemicals
- Does not age or rot, mould and mildew resistant, but not UV-resistant
- Water resistant (not watertight)
- M1 Emission classification of building materials
- Building material class B1 according to DIN 4102-1



Applications

- Clean, efficient and economical permanent bonding of insulation panels.
- 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 gypsum plasterboard/gypsum fiberboard in dry lining applications.
- Suitable for bonding non-load bearing walls, e.g. partition walls, screen walls, cellar bars, stone shelves, etc., of concrete precision blocks (aerated concrete, sand-lime brick, gypsum, hollow bricks...).
- Fills cavities between individual thermal insulation panels.

Technical data

Base	Polyurethane	
Consistency	Stable foam, thixotropic	
Curing system	Moisture curing	
Skin formation	EN 17333-3	ca. 8 minutes
Can be trimmed	EN 17333-3	ca. 30 minutes
Curing speed	ca. 1 hours - 30 mm adhesive bead	
Full strength	ca. 12 hours - 30 mm adhesive bead	



MFPA Leipzig GmbH
Gesellschaft für Materialforschung und
Prüfungsanstalt für das Bauwesen Leipzig mbH



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Thermal conductivity (λ)	EN 12667	0,035 W/m.K
Fire reaction class	DIN 4102	B1
Postexpansion		Minimal
Shear strength	EN 12090	0,142 N/mm ²
Shear modulus	EN 12090	0,489 N/mm ²
Tensile strength	EN 1607	0,19 N/mm ²
Temperature resistance		-40°C → +90°C

Footnote: Skinning time and curing speed may vary depending on environmental factors such as temperature, moisture, and type of substrates.

Substrates

- **Substrate condition**
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.
- **Substrate types**
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.
- **Not suitable substrates**
PE PP PTFE (Teflon®) silicone

Application method

- **Application method**
Prior to using the product, cover all adjacent areas for protection against soiling. In windy conditions, precautions must be taken to ensure that Soudabond Easy 1K 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. A distance of 1 to 2 cm must be maintained between the nozzle and insulation panel/substrate while spraying. Apply pressure to the insulation panel within about 8 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.

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■ Bonding flat roof insulation materials

Apply Soudabond Easy 1K Gun directly to the substrate. Pressure should be applied to the insulation panels for optimal contact and maintained using suitable weights for at least 15 minutes to prevent lifting and slipping through wind suction. The panels must not be subjected to traffic for about 1 hour.

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.

Remark: Soudabond Easy 1K Gun can only be used for bonding insulation on flat roofs in case of low buildings (such as garages, terras decks,...) or buildings where very low wind loads are applicable on the roof. On higher buildings and large projects, only Soudatherm Roof can be used for the bonding of insulation on flat roofs when the correct certificates are available.

■ Perimeter insulation

Soudabond Easy 1K Gun facilitates the installation of insulation panels in perimeter areas according to DIN 4108-2. (Not suitable for pressing water!). Spray Soudabond Easy 1K 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 8 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.

■ Façade/Wall insulation

In Germany, according to ETAG Directive 004, exterior thermal insulation composite systems with rendering require building inspectorate approval for the entire thermal insulation composite system including approval of the utilized adhesive by the German Institute for Building Technology (DIBt). In this area requiring approval, the system provider with appropriate system approval should be contacted directly!

In all other cases, Soudabond Easy 1K Gun is ideal for bonding insulation panels to interior walls and exterior facades!

The gun must be held vertical during application. Apply a circular bead of Soudabond Easy 1K Gun to the insulation panel with enclosed M/W to cover an adhesive area of minimum 40% with pressure applied. Wait at least 2 to maximum 8 minutes (20°C/65% R.H. – this time is shorter at higher temperature/humidity and longer at lower temperature/humidity) and subsequently press the insulation panel against the wall. Work from bottom to top without gap. Insulation panels must be bonded staggered in outer corners of buildings. Installed insulation panels can be adjusted with a long spirit level after 10 to 15 minutes to correct any post expansion of the adhesive. It is recommended to fix the last installed insulation panel during breaks.

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■ Cellar ceiling insulation

For working overhead, suitable protective goggles must be worn!

Soudabond Easy 1K 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 500 x 500 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. 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 500 x 500mm 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 Easy 1K Gun must be allowed to stand for 3 to maximum 6 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 center with a suitable insulation anchor under unfavorable bonding conditions.

■ 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 Easy 1K Gun levels uneven surfaces up to 30 mm.

Interior insulation panels: Apply Soudabond Easy 1K Gun about 2 cm 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 Easy 1K Gun, depending on the climatic conditions, allow to flash off for about 3-6 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 Easy 1K Gun air-tight and sound insulated. Work can be continued after minimum 1 hour. Soudabond Easy 1K Gun can also be used for mounting electrical installation boxes.

Plasterboard: In contrast to interior installation, three vertical adhesive beads are sufficient for the installation of plasterboard wider than 50cm. For panel widths below 50cm, a minimum of two adhesive beads must be applied.

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■ Concrete precision block bonding

Soudabond Easy 1K 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!

Clean the adhesive surfaces, remove loose particles and moisten. Apply two Soudabond Easy 1K 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 minimum 2 to maximum 8 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 60 minutes. The adhesive achieves full strength after minimum 12 hours.

■ Other applications

Due to its excellent adhesive properties, reduced foaming and fast final strength, Soudabond Easy 1K Gun is suitable for numerous bonding applications. Soudabond Easy 1K Gun is ideal for the installation of 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 Easy 1K Gun. Trim protruding, fully cured adhesive with a sharp knife. Soudabond Easy 1K Gun can be painted or plastered after curing.

■ Can temperature

+5 °C to +25 °C (Optimal +15 °C to +25 °C). If required, slowly bring the can to the optimal temperature by placing in cool or warm water.

■ Surface temperature

-5 °C to +35 °C

■ Cleaning method

With Soudal Gun & Foamcleaner or Swipex prior to curing, subsequently with PU Remover or remove mechanically.

■ Repair method

Repair with Soudabond Easy 1K Gun.

Health- and Safety Recommendations

Take the usual labour hygiene into account. Consult the packaging label and safety data sheet for more information.

Always wear gloves and goggles.

Remove cured foam mechanically. Never burn away.

Use only in well-ventilated areas.

Packaging/Logistics

Colour: Orange

Packaging: 750 ml aerosol (net)

Shelf life: 24 months in unopened packaging in a cool and dry storage place at temperatures between +5°C and +25°C, Cans must be stored upright to prevent blockage of spray valve, Once opened, keep container tightly closed and use within a short period.

Standards and certificates

- EC1 Plus label: very low emission
- M1 Emission classification of building materials
- Building Material Class B1 (DIN 4102-1)

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This technical data sheet replaces all previous versions. The directives contained in this documentation are the result of our experiments and of our experience and have been submitted in good faith. It is general in nature and does not constitute any liability. Because of the diversity of the materials and substrates and the great number of possible applications which are out of our control, we cannot accept any responsibility for the results obtained. Since the design, the quality of the substrate and processing conditions are beyond our control, no liability under this publication is accepted. It is the responsibility of the user to determine by his own tests whether the product is suitable for the application. In every case it is recommended to carry out preliminary experiments. The manufacturer reserves the right to modify products without prior notice.