SOUDAL

Technical Data Sheet

SOUDATHERM ROOF 170

Technical data:

Basis	Polyurethane Adhesive
Consistency	Liquid
Curing system	Moisture curing
Skin formation (20°C and 60% R.H.)*	+/- 10 min, maximal 30 min
Curing time after (20°C and 60% R.H.)*	2 - 6 h
Yield	6 m² insulation / kg adhesive, minimal 3 to 4 beads / m²
Postexpansion - shrinkage	None
Temperature resistance	-30°C to +100°C (for cured product)
Density (EN ISO 1183-1)	1,10 g/ml
Total solids content	100 %

(*) These values may vary depending on ambient factors such as temperature, humidity and type of substrate

Product:

Soudatherm Roof 170 is a solvent free, moisture curing, single component, polyurethane adhesive for bonding insulation materials on flat roofs.

Characteristics:

- Resistant to wind uplift (tested by IFI, Aachen, Germany)
- Permanent elasticity, doesn't become brittle
- Solvent free, compatible with polystyrene (EPS)
- Easy-to-use
- Minimal expansion for limited gap filling (Soudatherm Roof 250 and 330 are better solutions for uneven surfaces with a maximal unevenness of 1 cm / m²)
- Moisture curing
- Not suitable for vertical applications (Soudatherm Roof 250 and 330 can be used for vertical upstands, details, …)

Applications:

Bonding of common insulation materials

- Mineral wool
- PIR/PUR covered with
  - Mineral-coated glass fibre
  - Bituminous glass fibre (Sand surfaced or chipped, not on burnable PP surfaces)
  - Aluminium
- Expanded polystyrene (EPS)
- Mineral insulation materials (e.g. Perlite, Multipor®, Fermacell®)
- Extruded polystyrene (XPS) / Phenolic foam (PF): Only for the temporary fixation of the insulation in a ballasted roof (before the ballast is placed):

On many types of surfaces:

- Insulation on insulation (multi-layer)
- Even and uneven surfaces
- Masonry surfaces (e.g. concrete, fibre cement, cellular concrete)
- Steel roof decks
- Bituminous roofing felts, sand surfaced or chipped

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- Wooden boards, hard PVC, plaster, …
- On vapour barriers:
  - Check the technical data sheet of the vapour barrier to make sure it is suitable for insulation bonding
  - To be tested prior to use or used only with approval of the manufacturer of the barrier
  - Bituminous vapour barriers are possible
  - Aluminium coated vapour barriers: only with the approval of the manufacturer
- Doesn't bond to PE, PP or PTFE (Teflon)
- Always perform a prior adhesion test

Soudatherm Roof 170 should not be used for bonding rigid insulation boards on uneven surfaces. We advise to use Soudatherm Roof 250 or 330 in these cases

Working method adhesives:

- The materials should be clean and free of dust and grease. Loose parts should be removed and the surface should be coated with a primer if necessary.
- Suitable are moist, but not wet (water film, standing water) building substrates.
- Any cement slurries must be removed mechanically. Bubbles in bituminous sheeting must be removed in order to make sure that the structure has sufficient load bearing capabilities.
- Soudatherm Roof 170 is applied by pouring out the can or by punching holes in the bottom of the can.
- The adhesive is applied in equal beads on the support. At least 20% of the surface of the insulation should be covered after installing the boards.
- The adhesive is applied in straight beads or snake pattern on the substructure.
- The beads should have a diameter of +/- 8mm and should be poured out with equal spacing on the support.
- At least 4 beads / m² should be applied. On the corners and the edges of the roof, at least 8 beads are recommended. The correct number of beads (and thus the usage of adhesive) can be calculated according to EN 1991-1-4. The region, the roof area, the location and structure height and also the location on the roof (middle, corners or edges) are factors that have to be taken into account.
- The insulation boards have to be pressed down firmly so that contact between the surfaces and the adhesive is guaranteed.
- Soudatherm Roof 170 has almost no initial grab. Avoid wind uplift during the curing time.
- The curing speed depends on the humidity of substrate and the relative humidity of the air. During the first 30 minutes, corrections are possible.
- The insulation panels need to be pressed down with a maximal contact surface (at least 10%).
- The curing time is 2 – 6 hours, depending on temperature and humidity.
- Soudatherm Roof 170 has a slow strength build-up. Curing can be accelerated by lightly spraying the surface or the adhesive bead with water.

Application temperature:

- Surface temperature:
  From +5 °C to +35 °C
- Ambient temperature:
  From +5 °C to +35 °C
- Can temperature:
  From +5 °C to +35 °C
  (Optimal from +15 °C to +25 °C)

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SOUDATHERM ROOF 170

Packaging:

- Can: 2,2 kg (net weight), 6 cans / box
- Can: 5,5 kg (net weight), 4 cans / box

Colour*:* Brown

Cleaning:

With SOUDAL GUN & FOAM CLEANER prior to curing, subsequently with PU REMOVER or remove mechanically

Shelf life:

- 12 months in the unopened packaging in a dry location (with a storage temperature from 5°C to 25°C)
- After use, close the lid tightly

Safety recommendations:

- Observe the standard industrial hygiene procedures
- Wear protective gloves

Approvals:

- IFI (Aachen) PB 21/09 Bondrock
- Emission GEV Emicode EC1+, 7666/15.05.16

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