

Armaflex®
Ultima SF990 Adhesive



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Application instructions

Brief description:

Solvent-free, environment-friendly, water-based adhesive.

Armaflex SF990 is suitable for gluing all Armaflex insulation materials based on synthetic rubber (with the exception of HT/Armaflex and Armaflex Ultima).

Armaflex Ultima SF990 was specifically developed for gluing Armaflex Ultima and insulation materials based on Armaprene® synthetic rubbers.

Application conditions:

Ambient temperatures: ideal +20 °C to +25 °C,
 not below +15 °C and not above +30 °C

Relative humidity: ≤ 70 % (ideal ≤ 60 %)

Note: The adhesive must be heated slowly before use to $\geq +15$ °C (hot water bath approx. +25 °C, do not use boiling water or heat the adhesive on a radiator!)

During application, free convection is to be ensured and direct sunlight should be avoided.

- The adhesive does not need to be stirred after opening the container. However, it should be stirred occasionally while it is being slowly warmed in the hot water bath. Here greater shear forces should be avoided, as is the case while applying the adhesive.
- After each application remove adhesive residue from the brush (e.g. with a bristle brush) and put the brush in water.
- When resuming the gluing work, pat the brush dry.
- During (short) breaks always close adhesive container.

Adhesive application:

- The adhesive is applied to both surfaces thinly and, above all, evenly. Glue nests should be avoided.
- Due to the much longer tack-drying times, longer longitudinal seams can be coated in one workstep. In terms of work organization, a structured approach is needed here.
- Never speed up the drying process artificially (by blowing, waving in the air etc.)

Tack-drying time:

The tack-drying time is the space of time between applying the glue and joining the seams. The correct point of time for joining the seams is when the adhesive feels almost dry and is not transferred to the finger. The tack-drying time depends to a great extent on the thickness of the adhesive, the cell pore size of the substrate, the ambient temperature, the relative humidity and the wind speed.

After it is applied, Armaflex adhesive remains moist for 10 – 12 minutes. Much longer tack-drying times (up to 60 minutes) can occur due to thicker layers of adhesive, application on the threshold to high relative humidity conditions and coarse-pored structures.

Great differences in humidity conditions can lead to great differences in the tack-drying times of adhesive applied to the edges of sheets and seams of tubes. An excessively humid environment should be avoided and free convection (ventilation, heating) should be ensured.

Bonding:

- After the tack-drying time, the glued surfaces should be joined exerting high pressure (approx. 2 kg/cm²)
- If there is a lot of stress on seams or if seams are joined too soon, they may "peel away". It is no longer possible to press these areas together again. They must be re-glued.
- Inspect the glued seams. If defects are detected, they must be re-glued.
- Greater tensions within the seams should be avoided.

Wet sealing is effective in "on-pressure application". If partition bonding is carried out (i.e. each end of the Armaflex tube is glued to the pipe, the seams must remain open until completely dry to allow the moisture content to evaporate.

manual

Adhesion to various surfaces

All-over adhesive coverage on AGI-compliant substrates, stainless steel V2A/V4A, is possible. However, the metallic surfaces must be clean, dry and free of grease. Before the Armaflex material is applied, the surface needs a complete undercoat of the adhesive, which needs to dry thoroughly.

Before joining, the tack-drying time must be strictly observed in order to minimize the moisture beneath the insulation. In addition, it is necessary to work with extremely high contact pressure. If the pressure cannot be effectively exerted on greater insulation thicknesses (also on tubes) at the points to be joined, multiple layers of insulation must be used.

For all-over adhesive coverage of sheets, the first layer must be completely dry, before the second layer is applied.

Armaflex SF990 and Armaflex Ultima SF990 cannot be used on galvanised surfaces. In well-ventilated environments the adhesive reaches its ultimate strength after 72 hours. Only start up insulated plant after this time. Never insulate plant or systems that are in operation. Tapes, jackets etc. may only be applied after 72 hours!

Storage and Transport

The storage temperature should preferably not be below +15° C ambient temperature. Store in a dry place.

Protect against temperatures below + 5 °C. At 0 °C (frost line) the glue begins to flocculate. This state is irreversible and is a sign that the adhesive has been ruined. Storage at high temperatures (e.g. beneath the roof of a truck in the sun) can also cause the adhesive to be destroyed.

After completing the work:

Brushes and tools should be rinsed with water immediately after gluing. Do not use the Armaflex cleaner!

Important Note:

These application instructions are to be seen as a supplement to the general Armaflex installation guidelines, which must be followed in all cases. The Armaflex SF990 and Armaflex Ultima SF990 adhesives are only to be applied by certified users. Before starting work, always consult Armacell Technical Customer Service for practical advice and instructions!