

Two-component epoxy adhesive in a double syringe, for industrial and commercial use, weather, water and chemical resistant

Application areas

Constructive 2C epoxy reactive adhesive

- for fast, permanent structural bonding of metals such as treated aluminium, copper, steel, brass, painted and galvanised metals etc., ceramics, stone, concrete, wood, glass, fibreglass, polystyrene foam (Styropor), many hard plastics (incl. fibre-reinforced and polyurethane materials) and further materials such as e.g. graphites
- for compounds with increased requirements in terms of tensile shear strength, moisture resistance, contact with many chemicals such as acids and alkalis, petrol and other petroleum derivatives

Product benefits

- versatile for use in industry and trade
- very high mechanical strength properties (strong grip)
- easy handling thanks to the double syringe (in volume-mixing ratio 1:1)
- controlled and safe cross-linking
- volume stabilised (neither expansion nor shrinkage)
- good thermal adhesive strength
- good chemical resistance
- good weather resistance
- through its broad adhesion spectrum, the product is suitable for the majority of materials, in particular metals such as treated aluminium, glass fibre reinforced plastics, as well as stone, natural stone, ceramics, wood, wood-based materials, HPL etc.
- solvent-free
- compatible with natural stone
- no risk of corrosion
- sandable and drillable when cured
- for indoor and outdoor use
- cures without (air)humidity
- recoatable and lacquerable

Base

2C reaction adhesive based on epoxy resins and hardeners, solvent-free (VOC-free)

Restrictions

- The adhesive is force-fit and rigid, therefore not suitable for large adhesive joints subject to expansion (thermal expansion). This is particularly the case with glass, even if the glass itself is well bonded. We will be happy to be of assistance with your elastic bonding requirements.
- Bare aluminium is generally not bonded for long periods of time to resist ageing. Aluminium must either be painted, anodised or otherwise (chemically) pre-treated.
- In addition, we recommend that you carry out sufficient tests of your own to determine the suitability of this product for your particular requirements.
- Not suitable for PE, PP, PTFE (Teflon[®]), bitumen and waxy substrates. Not recommended for glass and mirrors.

Cleaning agents

Wisaclean R 216 for cleaning non-absorbent adhesive surfaces and fresh product residues. The cured product can normally only be removed mechanically. To wash your hands, please use water and soap.

Processing

This product is for specialist trained personnel.

Acclimatise the product before processing.

The bonding surfaces must be sound, dry and free of dust and grease.

Clean non-absorbent surfaces with Wisaclean R 216.

Check treated and non-absorbent surfaces with an adhesion test.

Depending on the surface of the material, it will be necessary to determine whether the adhesion can be improved by sanding or priming the surface.

After sanding, clean again (sanding dust).

- Open the double syringe from the front by unscrewing it, screw on the static mixer and (depending on the version) squeeze out the adhesive by hand or using a suitable gun.
- Alternatively, the required quantity of adhesive can also be sprayed onto a flat sheet or plastic without a static mixer and mixed homogeneously with a spatula. Make sure that no air is mixed into the mass.
- Apply freshly mixed adhesive to the bonding area so that both bonding surfaces are sufficiently wetted with adhesive.
- Apply the adhesive. Join parts to be glued together as quickly as possible. Press or at least fix parts until sufficient functional strength is achieved.

Remarks

- The first approx. 2 g of adhesive mixture per static mixer are not yet optimally mixed and must therefore not be used for bonding (safety shot).
- If work is interrupted, ensure that the adhesive does not remain in the static mixer for too long (see point Max. processing time in the static mixing tube).
- When working continuously, several double syringes can be emptied with one static mixer. If work is interrupted for longer than the maximum processing time in the static mixer tube, the static mixer must be replaced with a new one.
- The product is a strong exothermic reaction, ie mixing a high volume of adhesive may result in heat and smoke generation.
- Pressing time, time to functional strength and through-hardening are largely dependent on temperature and application quantity. The processor must add appropriate safety margins to the specified guide values.
- If necessary, protect parts that are not to be glued with a PE film.

Bonding of metals

- In most cases, the adhesion will be improved by sanding smooth surfaces with abrasive paper (e.g. P 120).
- Bonding of aluminium, copper, brass: only to chemically pre-treated or painted surfaces; these materials cannot be permanently bonded in an age-resistant manner without appropriate pre-treatment of the bonding surfaces.
- Galvanised sheet metal must always be protected against permanent exposure to standing moisture (white rust formation). When bonding, it

must be ensured that any moisture that occurs does not reach the bonding surface!

- Bonding of wood**
- When gluing wood, the wood moisture content must not exceed 15 % or fall below 8 %.
 - The pressing pressure should be >1 N/mm². Experience has shown that the final strength increases with the level of pressing pressure.

Colours	Binder (A-Component)	colourless-transparent
	Hardeners (B-Component)	colourless
	Mixture (Cured film)	transparent

Density	Binder (A-Component)	ca. 1.15 g/cm ³
	Hardeners (B-Component)	ca. 1.16 g/cm ³
	Mixture	ca. 1.15 g/cm ³

Shore D hardness ca. 80 (cured film, acc. to DIN 53505)

Mixing ratio parts by volume (A:B = 1:1)

Viscosity	Binder (A-Component)	20'000 - 40'000
	Hardeners (B-Component)	15'000 - 35'000
	Mixture (at +20 °C)	medium viscous (~5'000 - 10'000 mPa*s)

The viscosity during processing at 15 °C is about twice as high as at +25 °C.

Pot life ca. 5 min at +20 °C

Processing time, pot life, required dwell times etc. can only be determined precisely by carrying out your own tests, as they are strongly influenced by material, temperature, preparation quantity, application quantity and other criteria. The following values are purely indicative.
The processor must include appropriate safety margins.

Processing time ca. 3 - 5 min
The parts to be joined must be bonded together before the pot life is reached.

1st functional strength from ca. 20 min


Curing time 80 % final strength after ca. 3 h, at +20 °C
100 % final strength after ca. 24 h

Tensile shear strength ca. 25 N/mm²

Film properties tough-but-flexible

Thermal behaviour	Thermal conductivity	ca. 0.1 W/(m*K)
	Thermal expansion coefficient	ca. 60 - 120 x 10 E ⁻⁶ K ⁻¹

Electrical behaviour	Dielectric strength	ca. 50 - 90 kV/mm
	Specific contact resistance	ca. 3 - 5 x 10 E ¹² Ω/cm

Recoatibility	Can be sanded and painted over after complete cross-linking with most paint systems. The bonded workpieces should not be painted over until the adhesive has fully cured.
Temperature resistance	from -40 °C up to +120 °C (after complete cross-linking) for a short time even at higher temperatures
Processing temperature	optimal at +20 °C
Substrates	Treated aluminium, steel, galvanized steel, wood, wood-based materials, HPL, corian, gypsum fibreboards, natural stone, marble, granite, concrete, compact masonry, ceramics, enamel, glass fibre reinforced plastics, PVC-hard, epoxy, decorative, polyurethane and polystyrene foam panels, polyester, many thermoplastics and duroplastic plastics (except PE and PP) and many other materials. In case of other surfaces, own tests are required.
Further information	 More information about this product (current technical data sheet, safety data sheet, certificates, product variants, etc.) can be found via the adjacent QR code.
Item no. + Container sizes (mixing unit)	PX 2000.25 - double syringes of 25 ml / 28 g
Accessories	SM 25-50.SU - static mixers
Shelf life	In closed original packaging, protected from direct sunlight and stored in a dry place between +15 °C and +25 °C, the official shelf life is 12 months from date of production. Over storage time, viscosity increases and reactivity decreases.

Safety and disposal: Familiarise yourself with the valid Safety Data Sheets (SDS) for the products used. All applicable safety regulations and disposal instructions must be observed.

Observe: All information is based on careful examinations in the labs and our previous practical experience. They are non-committal notes. Due to the many materials that are marketed and the different processing methods, which we cannot influence, we can, of course, not assume any warranty, including under patent-law, for the result of your work. We recommend performing sufficient own tests to find out if the product meets the respective requirements. In addition, we refer to our terms and conditions of sale, delivery and payment, available at www.wisabax.ch/agb.html. © Wisabax AG - This technical data sheet replaces all older versions.

Have you noticed an unclear formulation or an error? Thank you for your feedback. In case of doubt, the German version of the technical data sheet applies.