

Constructive, tough 2C PUR reaction adhesive for bonding metals, wood, rigid PVC, GRP, etc., pasty and easy to spatulate

Application areas

High quality 2C polyurethane reactive adhesive for permanent connections in the industrial and commercial sectors e.g.

- for bonding core composite elements with PS, PUR and PVC cores, sandwich and balustrade elements, cladding sheetings, cover layers etc. where safe and controlled chemical cross-linking is required
- for the constructive, force-fit bonding of GRP sandwich structures in vehicle construction, for the assembly of side walls, floors and roofs of refrigerated vehicles
- for application with a notched trowel
- ideal for automotive industry, transport industry, container construction, building industry, industry

Product benefits

- pasty, easy to spread
- tough-but-flexible
- high mechanical strength properties
- good thermal resistance
- good weather resistance
- good chemical resistance
- through its broad adhesion spectrum, the product is suitable for the majority of materials, in particular metals such as treated aluminium, plastics like PVC-hard, glass fibre reinforced plastics like GRP (sanded), insulation materials like PUR, PS foam, mineral wool, melamine resin panels, steel, aluminium sheet, but also stone, ceramics, wood-based materials like HPL, MDF and plywood boards
- volume stabilised (neither expansion nor shrinkage)
- humidity resistant (after complete hardening)
- meets the requirements of the International Maritime Organisation (IMO)
- controlled and safe cross-linking
- solvent-free (VOC-free)
- plasticiser free
- compatible with natural stone
- almost odourless
- sandable when cured
- recoatable, lacquerable
- no risk of corrosion

Base

2C polyurethane reaction adhesive

Restrictions

Not suitable for PE, PP, PTFE (Teflon®), bitumen and waxy substrates. Not suitable for raw aluminium without pre-treatment.

Not recommended for PVC-soft, glass and mirrors.

When bonding different materials (especially outdoors), the thermal linear expansion of the different materials must be taken into account; if necessary, use an elastic assembly adhesive. We will be happy to be of assistance with your elastic bonding requirements.

For outdoor applications, the adhesive joint must be protected from direct weathering.

In addition, we recommend that you carry out sufficient tests of your own to determine the suitability of this product for your particular requirements.

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	<p>This product is for specialist trained personnel. Acclimatise the product before processing.</p> <p>The bonding surfaces must be sound, dry and free of dust and grease. Clean non-absorbent surfaces with Wisaclean R 216 and if necessary sand beforehand. Check treated and non-absorbent surfaces with an adhesion test. Stabilise or repair loose and sandy substrates beforehand.</p> <p>Stir binder component before adding hardener. Mix the hardener homogeneously with the binding component in the specified ratio (ca. 400 rpm). Use up the product within the processing time.</p> <p>By adding the accelerator Wisapur-BZ 505, the pot life and curing time can be reduced. Consequently, processing times are understandably shorter.</p> <p>By adding approx. 1 % Wi-colour paste (red, blue, yellow, white, black), the colour of the adhesive can be individually adjusted as required. The adhesive changes colour when exposed to sunlight (UV radiation).</p> <p>Apply adhesive to one side and join before the processing time has elapsed. Recommended tools: putty knife.</p> <p>Press the parts until sufficient functional strength is achieved. Recommended dwell time: ca. 10 h Recommended press power: 0.015 N/mm² resp. 1500 kg/m².</p> <p>If necessary, protect parts that are not to be glued with a PE film.</p>
Remark	<ul style="list-style-type: none">The adhesive components must not come into contact with moisture before and during processing. This leads to foaming during the reaction and thus reduces the strength of the bond.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.
Bonding of metals	<ul style="list-style-type: none">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 %.
- In the case of woods rich in substances / oily woods, e.g. teak, wash the bonding surfaces with Wisaclean R 216.
- PUR adhesives must never be used for exterior larch gluing. The wood constituents «Arabicum Galactan» contained / forming here destroy / weaken the bond strength considerably.
- Experience has shown that the final strength increases with the level of pressing pressure.
- Provide the exterior wood with a suitable surface protection and protect it structurally.

Colour

Binder (A-Component) beige-white
Hardeners (B-Component = Wisapur TH 550) brown
Mixture beige

Film properties

tough-but-flexible (when cured)

Shore D hardness

ca. 70 (cured film, acc. to ISO 868 / DIN 53505)

Mixing ratio

A : B 6.0 : 1.0 (parts by weight)
A : B 4.5 : 1.0 (parts by volume)

Viscosity

Brookfield RVT

Binder (A-Component) ca. 60 000 mPa*s highly viscous, pasty
Hardeners (B-Component) ca. 300 mPa*s low viscous-liquid
Mixture ca. 50 000 mPa*s low viscous-pasty

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

Density

Binder (A-Component) ca. 1.7 g/ml
hardeners (B-Component) ca. 1.23 g/ml
Mixture **ca. 1.63 g/ml**

Breaking elongation

ca. 20 %

Pot life

ca. 90 min for a preparation quantity of 100 g at +20 °C

Processing time

ca. 30 - 40 min
The processor must add appropriate safety margins to the specified guide values.

First functional strength

from ca. 6 h – 9 h (at +20 °C, depending on load and application)

Curing time

ca. 90 % final strength after ca. 24 h, at +20 °C
100 % final strength after ca. 7 d

Tensile shear strength

DIN / EN 14869 Alu/Alu 17 N/mm²
DIN / EN 1465 Alu/Alu 4 N/mm²

Recoatability

Can be sanded and painted over after complete cross-linking with most paint systems. The adhered workpieces should only be overpainted after the adhesive has cured completely; if the lacquer is applied prematurely, the formation of bubbles on the lacquer is not excluded. Own tests are necessary.

Temperature resistance	up to +90 °C (after complete cross-linking) up to +120 °C (for a short time, max. 1 h)
Processing temperature	from at least +15 °C up to +25 °C
Substrates	Glass fibre reinforced plastics, treated aluminium, steel, galvanized steel, PVC-hard, polyester, epoxy, decorative, polyurethane and polystyrene foam panels, many thermoplastics and duroplastic plastics (except PE and PP), wood-based materials and many other materials. In case of other surfaces, own tests are required.
Frost resistance	up to -30 °C (during transport)

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.
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Item no. / Content quantity	Item no.	Weight	Mixing unit
Delivery form	PU 566.7 A+B	7 kg	1 metal bucket of 6 kg and 1 PE-bottle hardener of à 1 kg

Larger containers (bucket, barrels, container etc.) or special settings on request.

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 (the printed expiry date is decisive). 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.