Wisapur®-duo 912

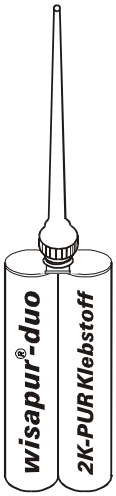
Lightning-fast two-component polyurethane adhesive, structural and durable, white, pot life 5 min

Application areas

Lightning fast 2-component polyurethane reactive adhesive in volume-mixing ratio 1:1 for permanent connections in the industrial and commercial sectors

- especially suitable for repair tasks
- for structural bonding of aluminium corner brackets in anodised and powder-coated aluminium profiles (frames and sashes) in aluminium windows, doors and façades; suitable for use with classic and injection bonding methods
- for the constructive, force-fit bonding of GRP sandwich structures in vehicle construction
- for gluing small parts or parts such as e.g. decorative and ornamental frames or cassettes made of polyester, polyurethane, aluminium and HPL on door panels or sandwich panels
- for constructive bonding of metal or composite stiffening profiles to natural stone e.g. in the manufacture of kitchen worktops
- for repair bonding of ceramic tiles and clinker bricks on concrete surfaces
- for treated aluminium, HPL etc.
- for bridging unevenness and filling holes
- ideal for metal construction, vehicle -manufacturing, handicraft and numerous applications in the industry

Product benefits



- compatible with natural stone
- easy handling thanks to the DUO cartridge
- controlled and safe cross-linking
- volume stabilised (neither expansion nor shrinkage)
- high mechanical strenght properties (strong grip)
- 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, gypsum fibreboards, wood, wood-based materials, HPL etc.
- solvent-free (VOC emission class A+)
- almost odourless
- no risk of corrosion
- good processing viscosity (easy to spread)
- well gap filling / non-dripping up to ca. 8 mm
- sandable and drillable when cured
- for indoor and outdoor use
- cures without (air)humidity
- recoatable and lacquerable

Base

2C polyurethane reaction adhesive

Wisapur®-duo 912

Restrictions

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.
Not suitable for raw aluminium without pre-treatment.
Powder coatings containing PTFE cannot be reliably bonded without pre-treatment (e.g. plasma process).
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.
For outdoor applications, the adhesive joint must be protected from direct weathering.

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.
Stabilise or repair loose and sandy substrates beforehand.

Cut the DUO cartridge above the threads. Insert the cartridge into the DUO gun. Press out gently until both components come out. Especially when using cartridges that have already been opened, make sure that no hardened material enters the mixing tube. Only then screw on the static mixing tube.

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. 20 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 DUO cartridges 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 maximum working pressure of the processing guns must not exceed 6.5 bar or 3.6 kN. Otherwise, leaks in the piston area, mixing errors or defective DUO cartridges may occur.

- Alternatively, the adhesive can also be mixed externally (without a static mixer) using a spatula. Make sure that no air is mixed into the mass.
- The freshly extruded adhesive can be manually blended homogeneously with the accelerator Wisapur-BZ 505.
- By adding approx. 1 % Wi colour paste (red, blue, yellow, white, black), the colour of the adhesive can be individually adjusted in the same work step.
- The adhesive changes colour when exposed to sunlight (UV exposure), but not its strength.
- 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/mm^2. 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.

Colours

Binder (A-Component)	**white**
Hardeners (B-Component)	**beige**
Mixture	**white** (pearl white)

Density

ca.1.5 g/ml

Shore D hardness

ca. 85 (cured film, acc. to DIN 53505)

Mixing ratio

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

Viscosity

Binder (A-Component)	low viscous-pasty
Hardeners (B-Component)	low viscous-pasty
Mixture	low viscous-pasty

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

Pot life

ca. 5 min for a preparation quantity of 100 g at +20 °C

Wisapur®-duo 912

Max. processing time in static mixer	ca. 2.5 min at +20 °C The processing time is halved at approximately +30 °C and doubled at approximately +10 °C.
First functional strength	from ca. 20 min (corner angle bonding at +20 °C)
Curing time	75 % final strength after ca. 3 h, at +20 °C 100 % final strength after ca. 1 d
Tensile shear strength	DIN / EN 1465 Alu/Alu (0.2 mm joint) at +20 °C ca. 18.0 N/mm² DIN / EN 1465 Alu/Alu (0.2 mm joint) at +80 °C ca. 9.0 N/mm²
Film properties	tough-but-flexible
Applied quantity	depending on application (e.g. ca. 20 g / corner angles)
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	from -35 °C up to +110 °C (after complete cross-linking) for a short time even at higher temperatures
Processing temperature	from at least +7 °C up to +30 °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 (GRP), 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.
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.
Item no. + Colour	**PU 82.912 - Wisapur-duo 912 white** (pearl white)
Delivery form / Content quantity	Packing unit of 10 DUO-cartridges of 900 g (ca. 600 ml)
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 15 months from date of production (the printed expiry date is decisive). Over storage time, viscosity increases and reactivity decreases.

Wisapur®-duo 912

Accessories

PU 82.915.221	DUO static mixer YELLOW, standard, with narrow, long tip, especially for corner angle bonding
PU 82.915.4	Square static mixer GREEN, short, with larger flow rate, for DUO cartridges
TG 850.288.6	2C-DUO PROFI hand gun
TG 44.DUO	2C-DUO hand gun
TG 257.900.DUO	2C DUO 900 compressed air gun

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.