Technical Data Sheet

Wisacoll® K1+ konstruktiv altweiss

One-component polyurethane adhesive for mounting; fast, strong, water resistant, solvent-free, sandable and paintable

Application areas

High-quality, fast and constructive assembly adhesive for universal use
- in the entire construction, assembly and industrial sector
- for permanent structural bondings in window and door construction
- for board joint gluing of cassettes in the wood, window and front door sector
- for skirting boards and laminate installation
- for the attachment of supports for raised access floors
- for fixing signs, stair railing rods and dowels in masonry
- for bonding corner joints in aluminium window and door construction in aluminium window and door construction
- ideal for carpenters, timber construction, stair construction, metal construction, handicraft and industry

Product benefits

- very short pressing times
- extremely high final strength
- rapid through-curing
- slightly foaming
- solvent-free (VOC emission class A+)
- compatible with natural stone
- almost odourless
- well gap filling up to 2 mm (max. possible up to ca. 5 mm)
- good processing viscosity (easy to spread)
- non-dripping
- sandable when cured
- recoatable, lacquerable
- good thermal adhesive strength
- can be subsequently powder-coated(30 min at +200 °C)
- for indoor and outdoor use
- no risk of corrosion
- achieves stress group D4 for wood / wood bonding in accordance with EN 204
- achieves a wood / wood gluing heat resistance according to DIN EN 14257 (WATT 91) of ca. 7.6 N/mm^2

Base

1C moisture-curing polyurethane; cross-linking is chemically neutral with air humidity, whereby the adhesive foams up slightly.

Restrictions

The product is NOT a sealant! 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.
Not suitable for PE, PP, PTFE, PVC-soft, 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

Acclimatise the product before processing.
This product is for specialist trained personnel.
The bonding surfaces must be sound, dry and free of dust and grease.
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.
Clean non-absorbent surfaces with Wisaclean R 216 and if necessary sand beforehand. Check treated and non-absorbent surfaces with an adhesion test.

Attention! The product foams slightly during the setting process!

To be considered when bonding

Apply the adhesive. Join parts to be glued together as quickly as possible (Pull out the first wipes from the centre of the can and push them through the opening in the lid.). Press or at least fix parts until sufficient functional strength is achieved.
If non-absorbent materials (material moisture <8 %) are bonded together, the adhesive must also be «finely dusted» with water in order to achieve complete curing.
If necessary, protect parts that are not to be glued with a PE film.

Remark

Skin formation, dwell time, time to functional strength and curing are largely dependent on temperature, air and material humidity, application thickness and substrate. The processor must add appropriate safety margins to the specified guide values.
UV exposure changes the colour of the cured compound, but not the strength of the cured adhesive joints.

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 %. If the wood is very dry, it is advisable to wipe the surfaces to be glued with a cloth slightly moistened with water just before applying the adhesive.
- 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.
- When gluing solid wood, the adhesive should preferably be applied to both glued surfaces.
- Precise fit is absolutely essential.
- 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.

Density	ca. 1.52 g/ml
Tensile shear strength	ca. 12 N/mm^2 at +20 °C
Thermal adhesive strength	ca. 7.6 N/mm^2 acc. to DIN EN 14257 (WATT 91)
Consistency	medium viscous-pasty, thixotrope; the viscosity during processing at 15 °C is about twice as high as at +25 °C
Skin formation	**dry** ca. **7 min** under normal conditions **moistened** ca. **4 min** under normal conditions (+20 °C, 50 % rel. humidity)
Film properties	tough-elastic in a thin layer (when cured) semi-hard in a thicker layer Remark: This product is not elastic in the sense of a sealant.
First functional strength	from ca. 20 min (wood-wood bonding at +20 °C, 50 % rel. humidity)
Curing time	by an adhesive bead of 2.5 mm ca. 24 h 100 % final strength after ca. 7 d For adhesive joint thicknesses >2.5 mm, the setting, pressing and through-hardening times are significantly longer; adhesive joint thicknesses ≥5 mm must be ruled out.
Applied quantity	ca. 150 - 200 g/m^2 depending on the carrier material
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)
Processing temperature	from +7 °C up to +30 °C
Frost resistance	up to -30 °C (during transport)
Substrates	Wood, wood-based materials, gypsum fibreboards, skirting boards, window sills, corian, concrete, compact masonry, ceramics, enamel, treated aluminium, steel, galvanized steel, PVC-hard, polyester, epoxy, glass fibre reinforced plastics, Sagex®, decorative, polyurethane and polystyrene foam panels, many thermoplastics and duroplastic plastics (except PE and PP) and many other materials. In case of other surfaces, own tests are required.

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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	**PUK 1.22 - Wisacoll K1 white antique** (cartridge à 310 ml / 470 g)
Delivery form / Content quantity	Packing unit of 12 cartridges of 310 ml / 470 g
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 24 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.