

ASODUR®-K4031 INDUBOND-VK4031 Art.-No. 2 06409

Solvent free, thixotropic 2 component universal epoxide adhesive

CE	
SCHOMBURG GmbH & Co. KG Aquafinstraße 2-8 D-32760 Detmold 17 2 06409	
DIN EN 1504-4:2004 ASODUR-K4031 Adhesive for construction use for bonding mortar and concrete	
Compressive strength	≥ 30 MPa
Shear strength	≥ 6 MPa
Open time	declared value +/-20 %
Working life (pot life)	declared value
Modulus of elasticity under pressure	≥ 2000 MPa
Glass transition temperature	≥ +40 °C
Coefficient of thermal expansion	αT ≤ 100 × 10 ⁻⁶ °C ⁻¹
Total shrinkage of the adhesive	S _{soil} ≤ 0.1 %
Adhesion	Cohesive failure in the concrete
Application and hardening under particular environmental conditions	failure in the concrete
Durability	passed
Reaction to fire	E
Dangerous substances	NPD

NPD = „No Performance Determined“

- high tensile adhesion strength
- high compressive and flexural strength
- resistant to a range of diluted acids, alkalis and solutions aggressive to concrete
- bonds to damp substrates
- hardens without shrinkage
- good deformability at low temperatures
- solvent free
- water impermeable up to 5 bar (DIN EN 12390-8)

Areas of application:

ASODUR-K4031 is a thixotropic adhesive and smoothing compound and is for use on various substrates on floors, walls and overhead areas.

ASODUR-K4031 can be used as an adhesive or smoothing compound for:

- Concrete slabs
- Screed boards
- Pre-cast concrete sections (e.g. Shaft rings)
- Bonding metals, ceramics and plastics
- Adhesive for ASO-Tape

Also suitable as a waterproof grout:

- as a smoothing compound for static cracks
- as a rapid repair mortar for concrete areas

Technical Data:

Basis: 2-components epoxy-resin
 Colour: grey
 Viscosity: trowellable consistency
 Density*: approx. 1.80 g/cm³
 Ambient and substrate temperatures: min. +10 °C
 max. +35 °C

Mixing Ratio: 2:1 parts by weight
 Pot life*: approx. 60 mins

Adhesive open time*: approx. 90 mins

Minimum cure temp.: +10° C

Overcoat after*: approx. 16 hrs to max. 24 hrs

Light traffic*: after 48 hrs /7 days

Fully cured after*: approx. 7 days

* at +23 °C and 50% rel. humidity

Compressive strength: approx. 60 N/mm²
 (DIN EN 196-1)

Flexural strength: approx. 30 N/mm²
 (DIN EN 196-1)

Tensile adhesion strength: approx. 2.0 N/mm²

Impermeability to water: up to 5 bar at 10 mm thickness according to DIN EN 12390-8

ASODUR-K4031 fulfils the requirements of the standard ASTM C-881 Type I and IV, Grade 3, Class B und C.

Cleaning: Thoroughly clean tools immediately after use with ASO-R001.

Packaging: 6 kg container (components are supplied at a pre-determined mixing ratio).

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Storage: Frost free, cool and dry, $\geq +10\text{ °C}$ to $+25\text{ °C}$, 24 month in the original, unopened packaging. Use opened packagings promptly. Advice: When stored below $+10\text{ °C}$, component A can possibly harden. This state is reversible. After storing component A above $+25\text{ °C}$ (approx. 72 hrs), the product can be used again without restriction.

Substrate preparation:

The substrate to be treated must:

- be dry, load bearing and have a good key
- be free from separating and adhesion inhibiting substances
- protected from reverse moisture penetration.

Substrate preparation is to be carried out with reference to DIN EN 14879-1:2005, 4.2 following.

Dependent on the condition of the substrate to be treated, use suitable preparation methods, e.g. high pressure water blasting, scabbling, shot blasting, planing etc, with which a textured, open surface is achieved.

In addition the following minimum requirements, appropriate to each substrate, are to be fulfilled:

Cement-based areas:

- Concrete quality: min. C 20/25
- Screed quality: min. EN 13813 CT-C25-F4
Tensile adhesion strength: $\geq 1.5\text{ N/mm}^2$
Age: min. 28 days
- Render quality: min. P IIIa/P IIIb
Tensile adhesion strength: approx. 0.8 N/mm^2
- Residual moisture: $< 4\%$ (CM-Method)

Metallic areas:

- Surface purity steel: min. SA 2½

Product preparation:

Component A (resin) and component B (hardener) are supplied at a pre-determined mixing ratio. Add component B to component A. Ensure that the hardener fully drains from its container. Blending of both components is to be achieved with a suitable stirrer at approx. 300 rpm (e.g. drill with paddle). In the process it is important to stir from the sides and base so that the hardener is evenly distributed. Stir for long enough to achieve an homogenous mix (free from streaks); mix time approx. 3 minutes. The material temperature should be approx. $+15\text{ °C}$ during the mixing process. **Do not use material from the supplied packaging.** Decant the mix into a clean mixing bucket and thoroughly stir once again.

Application/consumption (adhesive):

ASODUR-K4031 is applied to the prepared substrate with a gauging trowel, smooth or notched trowel and evenly spread over the substrate applicable for the purpose.

Minimum adhesive bed thickness: 2.0 mm

Material consumption: approx. 1.80 kg/m^2
per mm thickness

When bonding concrete elements (manhole rings), carefully remove excess adhesive after jointing the individual concrete sections. When using ASODUR-K4031 as a fluid grouting mortar, compaction of the infill mortar is necessary to prevent voids.

Important advice:

- As a rule, SCHOMBURG products are supplied in working packs i.e. at a mix ratio matched together. When supplied in large containers, part quantities must be weighed out using a balance. Always thoroughly stir the filled components and only then mix with the second component. This is to be executed with a suitable stirrer e.g. Polyplan/Ronden mixing paddle or similar. In order to exclude mixing errors, decant

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into a clean container and mix anew. The mixing speed should be approx. 300 rpm. Ensure that no air is mixed in. The temperature of the components should be minimum +15°C. This is also valid for any potential fillers to be mixed, e.g. sands. The addition of the fillers is only to occur once both liquid components have been blended. Afterwards place the completely mixed material immediately on to the prepared substrate and quickly and carefully spread out in accordance with the instructions in the technical data sheet. For applications by roller, it is recommended to use a short nap nylon paint roller (6 mm) with a textured polyamide cover or similar. Always thoroughly stir one component products before use.

- Higher temperatures shorten the pot life. Lower temperatures increase the pot life and setting time. Material consumption is also increased at lower temperatures.
- Colours: Small variations in colour, resulting from varying production batches and raw material fluctuations, are unavoidable. When applying coatings, take this into consideration. Carry out neighbouring sections with the same production batch (same batch number on the packaging).
- The bond between individual coats can be heavily impeded by the penetration of moisture and contamination between the individual coats. Coating work requires a substrate temperature of at least 3°C above the dew point temperature.
- If there is a long down time between individual coats or if already treated areas are to be renewed with liquid resins after a long period of time, then the old surface is to be well cleaned and thoroughly abraded. Afterwards carry out a completely new pinhole free coating.
- Resin products and surface protection systems must be protected from moisture (e.g. rain, melt water) after their application for approx. 4-6 hours. Moisture produces a white discolouration and/or stickiness on the surface and can lead to interference in the curing process. Take off discoloured and/or sticky surfaces by e.g. planing or abrasive blast techniques and renew.
- Consumption quantities given are values determined by calculation without additions for surface roughness or absorption, levelling or residues in the containers. We recommend adding a calculated safety factor of 10% to the computed consumption quantities.
- Applications, which are not clearly mentioned in this technical data sheet may only be implemented after consultation with and written confirmation from the technical service department of SCHOMBURG.
- Cured product residues can be disposed of using waste disposal code AVV 150106.

Please observe a valid EU safety data sheet.

GISCODE: RE 1