



## Technical Data Sheet

# UNIFIX®-S3

## Highly-flexible tile adhesive

Art. no. 2 04330

<b>CE</b>	
<b>SCHOMBURG GmbH &amp; Co. KG</b> Aquafinstraße 2-8 D-32760 Detmold 18 <b>2 04330</b>	
EN 12004 <b>UNIFIX-S3</b> Normal-hardening, cement-based mortar for tiling and board-laying work in interior and exterior areas	
<b>C2</b>	
Reaction to fire:	Class E
Bond strength as	
Tensile adhesion strength after dry storage: $\geq 1 \text{ N/mm}^2$	
Bond strength as	
Tensile adhesion strength after water storage: $\geq 1 \text{ N/mm}^2$	
Tensile adhesion strength after warm storage: $\geq 1 \text{ N/mm}^2$	
Tensile adhesion strength after alternating frost/thaw storage: $\geq 1 \text{ N/mm}^2$	



- Highly-flexible special tile adhesive
- For critical substrates and high stresses
- Can also be used on new substrates
- Waterproof and frost-resistant
- Vapour permeable
- For interior and exterior areas
- In accordance with DIN EN 12004, C2 TE S2

### Areas of use:

UNIFIX-S3 is used as a thin-bed mortar, particularly for laying vitrified tiles with low water absorption  $\leq 0.5\%$  (porcelain stoneware), stoneware, clinker, and mosaic on new cement-based substrates. Thanks to the high deformability of UNIFIX-S3, damaging shear stresses in the covering can be largely compensated for. UNIFIX-S3 may be adjusted with the addition of water for non-slump or flowing bed consistency.

UNIFIX-S3 is particularly well suited to use on balconies and terraces, in swimming pools and containers, on heated constructions, on new, load-bearing, cement-based substrates, and for laying tiles and boards with low water absorption.

Thanks to its high elasticity, UNIFIX-S3 reliably absorbs high stresses, for example those that occur between substrates and surface in exterior areas or when laying on new, walkable cement-based screeds (approx. 3 days after being put down) and heated screeds.

The vapour permeability of UNIFIX-S3 guarantee that cement-based substrates that are still moist will dry out properly, even when laying is carried out early. The obligatory heating of the screed before laying ceramic materials can be omitted.

When laying natural stone materials, the product-specific properties of the natural stone, and sensitivity to discolouration and curling effects must be taken into account.

UNIFIX-S3 is a system component of the bonded tiled waterproof system AQUAFIN-TBS. UNIFIX-S3-fast is suitable on mineral and dispersion-bound SCHOMBURG bonded waterproof systems in the wear classes A, B, A0, and B0 and water influence classes W0-I to W3-I, W1-B, and W2-B.

UNIFIX-S3 is suitable for use in interior spaces according to the AgBB evaluation diagram (committee for health hazard evaluation of building products, French VOC Directive, and Belgian Royal Decree C-2014/24239. Very low emissions in accordance with GEV-EMICODE, which normally results in positive evaluations within the scope of building certification systems in accordance with DGNB, LEED, BREEAM, HQE.

Maximum quality level 4, line 8 in accordance with DGNB criteria "ENV 1.2 Risks to the local environment".

---

# UNIFIX®-S3

## Technical data:

	A component Powder component UNIFIX-S3	B component Liquid component UNIFLEX-F
Basis:	aggregate, cement, additives	liquid polymer
Colour:	grey	white
Mixing ratio:	3 parts by weight	1 part by weight
Packaging:	15 kg sack + 25 kg sack +	5 kg canister 8.33 kg canister
Storage	dry, 12 months in the original unopened container	frost-free,
	<b>UNIFIX-S3 (combined product)</b>	
Mixing ratio:	15 kg A-comp. (powder): 5 kg B-comp. : up to 0.25 l water	
Non-slump	25 kg A-comp. (powder): 8.33 kg B-comp. : up to 0.40 l water	
Flow bed:	15 kg A-comp. (powder): 5 kg B-comp. : up to 1.35 l water	
	25 kg A-comp. (powder): 8.33 kg B-comp. : up to 2.25 l water	
Application/ substrate temp.:	+5 °C to +25 °C	
Pot life*):	approx. 60 minutes	
Adhesive open time*):	approx. 30 minutes	
Thin-bed mortar:	up to approx. 5 mm layer thickness	
Ready for grouting*):	In case of non-slump setting, grouting is normally possible on the following day. In case of flow bed mortar, grouting may normally begin after two days, depending on the absorbency of the substrate.	
Foot traffic after*):	After one day at the earliest, depending on the absorbency of the substrate and the selected	

Fully cured*):	consistency After minimum 14 days, depending on the absorbency properties of the substrate
Cleaning:	Clean immediately after use with water
Deformability:	≥ 5 mm in accordance with DIN EN 12004
Testing:	In accordance with EN 12004, Kiwa GmbH, test report P 10619-1 a very low emissions in accordance with GEV-EMICODE, AgBB diagram, the French VOC Directive, and Royal Belgian Decree C-2014/24239
Consumption:	approx. 2.80 kg/m <sup>2</sup> with 6 mm notched trowel approx. 3.70 kg/m <sup>2</sup> with 8 mm notched trowel approx. 4.70 kg/m <sup>2</sup> with 10 mm notched trowel

\*) The values apply for +23 °C and 50% relative humidity; higher temperatures shorten, lower temperatures extend the time cited.

## Substrate:

The substrate must be dry, load-bearing, adequately level, free of penetrating cracks and free of separating substances, such as oils, paints, laitance layers, and loose particles. It must have a primarily closed surface condition and exhibit strength typical of its type. Substrate preparation and application per DIN 18157, part 1, and the application specifications of UNIFIX-S3 that differ from this, are authoritative when laying tiles.

Prime absorbent substrates with ASO-Unigrund. Calcium sulphate screeds must be roughened, vacuumed, and primed with ASO-Unigrund-K. as with all calcium sulphate bound substrates, and diluted at a ratio of 1:3 water. Heated screeds must be heated in accordance with recognised standards before installation of coverings. Moisture measurement should be carried out with the CM

---

# UNIFIX®-S3

device to assess whether it is ready for laying on. The CM moisture readings may not exceed

- CA without floor heating system  $\leq 0.5\%$
- CA with floor heating system  $\leq 0.3\%$ .

Tiles can be laid on cement-based screeds with UNIFIX-S3-fast, as soon as the screed is able to withstand loads. Concrete substrates after 28 days, independent of moisture content. The CM measurement must be completed in accordance with the current working instructions FBH-AD from the technical information "Interface coordination with heated floor constructions". Surface irregularities in substrates that are ready for laying can be compensated out beforehand with e.g. SOLOPLAN-30-PLUS.

## Application:

UNIFIX-S3 is a combination product and is shipped in accordance with the mixing ratio. First, add the B component into a clean mixing bucket. Next, add the A component (powder) and continue mixing until a homogeneous bulk density is produced. For easier application, up to max. 9% water in relation to the A component may be added. After short maturing time of approx. 3 minutes, the mixed thin-bed mortar must be stirred again. Do not mix more UNIFIX-S3 than can be used within the pot life of approx. 60 minutes.

Mix ratio, **non-slump** and very deformable (corresponds with class C2 TE S2, deflection in accordance  $> 5$  mm):

5 kg B component : up to 0.25 l water : 15 kg

A component

8.33 kg B component : up to 0.40 l water : 15 kg

A component

Mix ratio, **flow bed** and very deformable (corresponds with class C2 E S2, deflection in accordance  $> 5$  mm):

5 kg B component : up to 1.35 l water : 15 kg

A component

8.33 kg B component : up to 2.25 l water : 25 kg

A component

In case of non-slump setting, grouting is normally possible on the following day. In case of flow bed mortar, grouting may normally begin after two days.

Spread UNIFIX-S3 evenly across the substrate and comb through with a suitable notched trowel to suit the board size/material. Lay the surfacing materials within the adhesive open time (finger test). In exterior areas and continuously wet areas, ensure that there are no cavities in the bedding for the tiles and boards. Special notched trowels (e.g. HFV notch, Flowline) have proven useful for this.

## Important instructions:

- The relevant guidelines (DIN, ZDB data sheets [German construction industry association]) still insist on a 28-day waiting time for cement-based substrates. Many years of experience with elastic thin-bed mortar UNIFIX-S3 have shown that non-destructive placement is also certainly possible on newer substrates. Prerequisite for laying tiles on new substrates is compliance with the following criteria: The arrangement of movement joints complies with the relevant guidelines. Maintain an adhesive bed thickness of min. 3 mm (depending on the placement angle, approx. 8 mm trowel) to compensate for any slight deformations in the substrate. Heating screed constructions must generally be completed from the 21st day after laying the screed in accordance with the relevant guidelines (ZDB data sheet). Placement begins as soon as possible, and normally minimum 3 to 8 days after the screed is able to be walked on. The screed must have reached minimum 70% of its final strength (in normal cases, after 7 days). Complete grouting with hydraulically hardening grout, e.g. ASO-Flexfuge or HF05-Brillanfuge. When working on new, cement-based substrates (screed, heated screed), the reduced full service conditions of the screed construction must be taken into

# UNIFIX®-S3

- account. Do not place heavy tools, surfacing materials, etc., on the screed, in particular in areas at risk of breakage – ensure load spreading measures.
- When laying natural stone and synthetic stone, the product-specific properties of the coating materials (tendency for discolouration, curling effects, etc.) and the laying recommendations of the manufacturer must be taken into account. We recommend completing a trial adhesion.
  - To avoid curling effects due to water absorption, we recommend using ASODUR-EK98/ASODUR-DESIGN when working with agglomerates/synthetic stone.
  - Direct solar radiation and draughts can result in a skin forming prematurely or to the open time being shortened.
  - UNIFIX-S3 is a hydraulically hardening mortar with dispersion component rate that can take a few days before being fully hardened in unfavourable climatic conditions or when exposed to weather influences and so it must be protected from exposure to water and frost in the meantime.
  - Pools, containers, etc. may only be filled after 28 days at the earliest.
  - Protect surfaces that are not to be treated against the effects of UNIFIX-S3.
  - Avoid contact with eyes and skin.
  - Prime calcium sulphate bound substrates with ASO-Unigrund-GE or ASO-Unigrund-K (mix ratio 1:3 with water)! When laying tiles on calcium sulphate bound substrates, UNIFIX-AEK is useful to avoid ettringite formation with residual moistures of 1.0% with heated or 1.5% per CM with unheated constructions!
  - Do not add water or new mortar to existing thin-bed mortar already in the binding process in order to make it workable again as this would involve a risk of

inadequate strength development!

- Direct contact between cement tile mortar and magnesite screeds leads to the destruction of the magnesite screeds through a chemical reaction known as "magnesite pouring". Moisture pressure from the rear of the substrate must be prevented through appropriate measures. The magnesite substrate should be mechanically roughened and primed with the epoxy resin ASODUR-V360W plus max. 5% water (approx. 250 g/m<sup>2</sup>). After a waiting time of approx. 12 to 24 hours at +20 °C, the second coat of ASODUR-V360W should be applied (approx. 300–350 g/m<sup>2</sup>). While the second coat is still fresh, apply plenty of quartz sand with 0.5–1.0 mm grain size. Installation of coverings may be completed after a further waiting time of approx. 12–16 hours.
- In continuously underwater areas (swimming pools, containers, etc.) ensure that there are no cavities in the bedding for the tiles and boards. Special notched trowels (e.g. HFV notch, Flowline) have proven useful for this. Placement of the bedding mortar on the rear of the board may be omitted if the bedding technique is suitable, provided the floating-buttering method is not prescribed exclusively from a planning perspective. We recommend checking the work results continuously.
- Protect surfaces that are not to be treated against the effects of UNIFIX-S3!

Please observe valid EU safety data sheets!

**GISCODE: ZP1**

