



Technical Data Sheet

AK7P

Flexibilized tile adhesive

Art.-No. 2 01000

CE	
SCHOMBURG GmbH & Co. KG Aquafinstraße 2 - 8 D-32760 Detmold 04 2 01000	
EN 12004 AK7P Cement-based adhesive for the installation of tiles in interior and exterior areas	
C2	
Reaction to fire:	Class A1/A1fl
Bond strength, as	
tensile adhesion strength after dry storage:	≥ 1 N/mm ²
Durability, as	
tensile adhesion strength after water immersion:	≥ 1 N/mm ²
tensile adhesion strength after warm storage:	≥ 1 N/mm ²
Tensile adhesion strength after freeze/thaw cycles:	≥ 1 N/mm ²



- very low emission
- for interior and exterior use
- easy to use
- especially good slip resistance
- tested to DIN EN 12004, C2 TE

Areas of application:

AK7P is used as a thin bed adhesive for the installation of vitrified and earthenware tiles, ceramic tiles with lower water absorption ≤ 0.5% (fully vitrified), clinker, mosaic and natural stone materials which are not sensitive to discolouration or translucent. AK7P is suitable for an assured installation to all substrates in accordance with DIN 18157, part 1 e.g. concrete, aerated concrete, render, plaster, cement-based and calcium sulphate based screeds / heated screeds, masonry work, plasterboard etc. It is also suitable as an adhesive for lightweight construction boards e.g. those made with extruded polystyrene and for the installation of tiles onto mineral-based and dispersion-based SCHOMBURG bonded waterproof membranes in interior areas. AK7P is suitable for use in interior rooms in accordance with the French VOC by-law and the Belgian Royal Decree C-2014/24239. Very low emissions in

accordance with GEV-EMICODE, which as a rule leads to positive evaluations within the framework of building certification systems according to DGNB, LEED, BREEAM and HQE. Highest quality level 4, row 8 in accordance with the DGNB criterion "ENV 1.2 Local environmental impact".

Technical Data:

Basis:	cement / sand (polymer modified)
Colour:	cement grey
Filler composition:	fine sand
Reaction to fire:	A1 / A1fl
Testing:	DIN EN 12004, MPA NRW, Test certificate 220001533-02-01, Reaction to fire in accordance with EN 13501-1
Bulk density:	1.35 kg/l
Application / substrate temp:	+5° C to +25° C
Pot life *):	approx. 2 hrs
Open time *):	approx. 20-30 mins
Grout after *):	approx. 24 hrs
Foot traffic after *):	approx. 24 hrs
Full service conditions *):	after approx. 7 days
Consumption:	approx. 2.1 kg/m ² with a 6 mm notched trowel approx. 2.8 kg/m ² with an 8 mm notched trowel approx. 3.5 kg/m ² with a 10 mm notched trowel approx. 5.2 kg/m ² with a 12 mm notched trowel
Cleaning:	immediately with water
Packaging:	25 kg plastic bag

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Storage: 12 months when stored dry in the original unopened packaging. Use opened packaging promptly.

* Values relate to +23° C and 50% relative humidity

Substrate preparation:

The substrate must be dry, load-bearing, adequately flat, free from penetrating cracks and free from separating substances such as oil, paint, laitance and loose areas. It must have a largely closed surface texture with a surface condition and strength commensurate with its type. When installing tiles, the substrate, its preparation and tile installation to DIN 18157, part 1 is decisive. Prime porous substrates with ASO-Unigrund. Calcium sulphate screeds must be abraded, vacuumed and as with all calcium sulphate based substrates, primed with e.g. ASO-Unigrund/ASO-Unigrund-S (diluted 1 : 1 with water). If large format tiles are to be laid on calcium sulphate based screeds, we recommend priming with ASODUR-V360W due to its greater barrier effect. Heated screeds must be commissioned to recognised technical regulations prior to the installation of floor finishes. The readiness of the substrate to receive surface finishes is to be determined by moisture measurements with a carbide hygrometer (CM device).

The CM moisture content may not exceed:

- CT ≤ 2.0% for screeds on insulation or separating layers, in interior areas
- CA without underfloor heating ≤ 0.5%
- CA with underfloor heating ≤ 0.3%

The CM measurement is to be carried out in accordance with the FBH work instruction taken from the technical information "coordination of cut-out points with heated screeds"

Product preparation:

Mix AK7P with clean water in a clean mixing bucket until homogenous.

Mixing ratio:

7.0-8.25 litres water : 25.0 kg AK7P.

Allow to stand for 3 minutes, then stir once again. Only prepare as much adhesive as can be used within the pot life. Spread the mixed adhesive over the substrate surface and comb through with a suitable notched trowel dependent on the tile format and fix within the open time. **To install large format tiles or those subjected to greater loads or temperature fluctuations, we recommend that AK7P is modified with UNIFLEX-B.**

The deformability and tensile adhesion strength in accordance with DIN EN 12004 is considerably increased. Dependent on the modification, deformability class S2 is achieved, which is particularly recommended for tiles larger than 60 × 60 cm. Shear stresses are then compensated for to a larger degree, which under unfavourable extraneous conditions can lead to debonding. To improve workability, UNIFLEX-B is mixed with water and then homogeneously mixed into AK7P.

Mixing ratio, highly deformable

(conforms with class C2 S2, deflection > 5 mm):

4.17 kg UNIFLEX-B : approx. 4.0 l water : 25 kg.

Advice:

- When installing tiles in heavy duty areas such as exterior areas (balconies and terraces) use the highly elastic bonded waterproof membrane system AQUAFIN-TBS (AQUAFIN-RS300, AQUAFIN-2K/M and UNIFIX-S3 or UNIFIX-2K).
- When installing natural or synthetic stone, heed the specific properties of the product to be installed (tendency to discolour, risk of curling etc.) and the installation recommendations of the manufacturer.

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- To avoid curling effects resulting from water absorption, we recommend the use of ASODUR-EK98 or ASODUR Design with agglomerate / synthetic stone.
 - Prime calcium sulphate based substrates with ASO-Unigrund. To avoid the formation of ettringite with calcium sulphate based substrates, UNIFIX-AEK is suitable for laying tiles up to a residual moisture content, measured with a carbide hygrometer, of 1.0% when heated or 1.5% when unheated.
 - Do not attempt to re-life adhesive which has already started to stiffen, by adding fresh adhesive or more water as there is a risk of inadequate strength development.
 - Direct contact between cement-based adhesives and magnesite screeds leads to the destruction of the magnesite screed through chemical reaction. Moisture penetration from the rear must be excluded using appropriate means. Mechanically abrade the magnesite substrate and prime with the epoxy resin ASODUR-V360W with max. 5% water addition as necessary (approx. 250 g/m²). After waiting for approx. 12 hours up to a max. of 24 hours at +20 °C, apply a second coat of ASODUR-V360W (approx. 300-350 g/m²). Blind the second coat whilst still wet with quartz sand of grain size 0.5-1.0 mm. After waiting for a further 12-16 hours the installation works may proceed.
 - In continuously wet areas (swimming pools, containers etc.), we recommend the use of system thin bed adhesives UNIFIX-S3, UNIFIX-2K, UNIFIX-2K/6 using the floating-butterming method onto the SCHOMBURG waterproof material suitable for the particular application.
 - AK7P is a hydraulically curing adhesive and must be protected against water and frost until fully cured, which may take a few days in unfavourable weather conditions.
 - Protect areas where AK7P is not to be applied.
- Observe the relevant current regulations. E.g. DIN 18157, DIN 18352, DIN 18560
DIN 18202, EN 13813, DIN 1055
The BEB information sheets, distributed by the Bundesverband Estrich und Belag e.V.
The technical information "coordination of cut out points in heated floor constructions".
The ZDB information sheets, distributed by the professional association of the German tile industry:
[* 1] "Bonded waterproof membranes"
[* 2] "Finishes on calcium sulphate screeds"
[* 3] "Movement joints in wall and floor tile finishes"
[* 5] "Ceramic tiles, natural stone and cement-bound composite slabs on cement-based floor constructions with insulation"
[* 6] "Ceramic tiles, natural stone and cement-bound composite slabs on heated cement-based floor constructions"
[* 7] "Finishes in exterior areas"
[* 8] "Finishes on poured asphalt"
[* 9] "Tolerances in level"
[* 10] "Tolerances"
[* 11] "Cleaning, protecting, maintenance"
[* 12] "Swimming pool construction"

Please observe a current valid EU Safety data sheet.

GISCODE: ZP1

