




Technical Data Sheet

ASO®-SEM

Art. no. 2 06543

Rapid setting pre-blended dry mortar that is ready to receive tiles and boards quickly

	
SCHOMBURG GmbH & Co. KG Aquafinstraße 2-8 D-32760 Detmold 19 2.06543	
EN 13813 ASO-SEM Cement-based screed mortar for application inside buildings	
Reaction to fire 96/603/EC	Class A1fl
Release of corrosive substances	CT
Compressive strength	C40
Flexural strength	F6



produced with the pre-blended dry mortar ASO-SEM is applicable for use if a suitable SCHOMBURG bonded waterproof system has been applied. In swimming pools, wear class B in accordance with the ZDB data sheet [* 1], or the water impact classes W1-B to W3-B per DIN 18535, we recommend using screed produced from ASO-EZ4 / ASO-EZ4-PLUS.

[* 1] Refer to notes

- High processing reliability
- Consistent screed quality
- Long working time
- Rapid-setting
- Walkable after 1 day with tiles and boards*)
- For interior and exterior areas
- Can be heated after 3 days in accordance with accepted rules of the technology
- Dust reduced

Areas of use:

ASO-SEM is an optimised drying pre-blended dry mortar for producing cement-based screeds that are ready to receive tiles and boards quickly, and with a higher strength than quick setting screed in composite construction, floating fast setting screed on insulation or a separating layer and heated screed, which is suitable for use as a wearing surface or substrate for tiles, boards, textile coverings, parquet or PVC. The general guidelines for cement-based screeds according to DIN 18560 and DIN 18353 apply for processing. The substrate must correspond to the payloads associated with the load-bearing capacities that are in accordance with DIN EN 1991-1-1.

In areas exposed to water with wear class A0, A, B0, C per the ZDB data sheet [* 1], or the water impact classes W0-1 to W3-1 in accordance with DIN 18534, screed

Technical data:

Basis:	Special cement, additives, aggregate
Colour:	Cement grey
Water addition:	1.5 l / 25 kg ASO-SEM (6.0% water)
Mixing method:	Forced paddle mixer, free fall mixer
Bulk density of fresh mortar:	approx. 2.1 kg/dm ³
Layer thickness:	up to approx. 60 mm
Storage:	dry, 12 months in the original unopened container, promptly use opened container
Application/substrate temperature:	+5 °C to +25 °C
Consumption:	approx. 20 kg ASO-SEM per m ² /cm screed thickness
Packaging:	25-kg container
Cleaning:	Clean tools and equipment with water immediately after use
Classification:	EN 13813 CT-C40-F6-A9
Fire class:	A1fl, in accordance with resolution 96/603/EC
Foot traffic after*):	approx. 24 hours
Fully cured after*):	approx. 7 days
Pot life*):	approx. 45 minutes

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

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Minimum nominal thickness per DIN 18560:

under tiles	45 mm on insulation or separating layer
under parquet, carpet, linoleum or PVC	30 mm on insulation or separating layer
general	10 mm bonded

Application:

To mix, we recommend using the EstrichBoy screed mixer from Brinkmann with 65 mm hose diameter or other conventional screed mixers, e.g. PFT, the Putzmeister Mixokret or similar. Observe the water addition and avoid excess water! The pot life at +20 °C is approx. 45 minutes. Mixing, application, and processing must be completed in immediate sequence. The dimensions of surfaces must be such that the application can be completed within this pot life. Higher temperatures shorten, lower temperatures extend the application and hardening times. With bonded screeds, first brush ASOCRET-HB-flex into the prepared - e.g. abraded - concrete substrate. Apply the screed to the wet slurry coat. The general guidelines for cement-based screeds according to DIN 18560 and DIN 18353 apply for processing.

Mixing recommendations for mixing and conveying machines:

In conventional mixing and conveying machines with a 220 l mixing vessel, e.g. the EstrichBoy from Brinkmann, PFT, Putzmeister Mixokret, or similar, a total 250 kg of ASO-SEM is mixed with 15 l of tap water. This equates to a mixing vessel level of approx. 80% - as recommended by the machine manufacturers in general.

Proceed as follows here:

First, half-fill the mixing drum with 125 kg ASO-SEM and approx. 10 l water. Then fill with the remaining 125 kg ASO-SEM and add 5 l water. The total mixing time is approx. 2 min. Establish a consistency of damp earth to stiff plastic through the water addition. Protect the fresh screed from drying out too rapidly,

e.g. through heat or draughts. With a water addition of 1.5 litres to 25 kg ASO-SEM, an ambient and substrate temperature of +23 °C, a relative humidity of 50 % and a layer thickness of 5 cm, the screed is ready for laying with tiles after one day. To check this, perform a moisture measurement with the CM device.

Important instructions:

- The technical data sheets of the aforementioned products should be observed!
- If the selected mixing time is too short or mixing is not sufficiently intense, this is not guaranteed to disperse all constituents sufficiently. The screed will not be ready to receive tiles and boards quickly, and it will no longer exhibit a high strength!
- Perform a moisture measurement with the CM device to assess whether it is ready to receive tiles and boards. The following limit values should be complied with:

Maximum moisture content of the screed, determined with the CM device			
Top layer		heated	unheated
Vapour barrier covering		1.8%	2.0%
Textile covering	Water vapour inhibiting	1.8%	2.5%
	Water vapour permeable	2.0%	3.0%
Parquet		1.8%	2.0%
Laminate floor		1.8%	2.0%
Ceramic tiles or natural / artificial stone at +23 °C, 50% r.h.	Thick layer	2.5%	2.5%
	Thin-bed	2.5%	2.5%

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".

- Low temperatures, high humidity and heavy layer thicknesses delay hardening, drying and extend the time until ready to receive tiles and boards. (See also BEB data sheet "Building climate preconditions for drying screeds"). Tests showed that the crystalline binding of the mixing water is slower at low temperatures (+5 to

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- +10°C), meaning that the screed was only ready to receive tiles and boards after 2 days!
- Water that is pressed out of the surface of the screed indicates excessive water addition (more than 1.5 l water/25 kg ASO-SEM)!
 - ASO-SEM can crystalline bind approx. 6% of its weight to water. Water quantities that exceed this volume must evaporate and therefore delay the readiness to receive tiles and boards!
 - With rising moisture from the substrate, effective waterproofing is essential prior to laying the screed!
 - The installation location needs to be ventilated. However, draughts and direct solar radiation should be avoided during application and the hardening process. The indoor temperature and floor temperature must be at least +5°C during application, and during the following week! Air dehumidifiers may not be used during the first 3 days!
 - Do not add any other cement or binder!
 - Border, field, building separation and movement joints should be carried over to or installed at the designated location; suitable means (e.g. edge strips) should be used to detach them! Crack control joints should be cut in up to a third of the introduced layer thickness!
 - Do not add any additives and substances!
- The current relevant regulations are to be observed! So, for example:
DIN 18157 DIN 18352 DIN 18531
DIN 18534 DIN 18535 DIN 18560
DIN EN 13813 DIN 1055
The BEB data sheets, issued by the Bundesverband Estrich und Belag e.V. [Federal association for screed and covering]
The technical information "Interface coordination with heated floor constructions"
The ZDB data sheets, issued by the Fachverband des deutschen Fliesengewerbes [professional association of the German tile trade]:
[* 1] "Bonded waterproof systems"
[* 3] "Movement joints in cladding and coverings made of tiles and boards"
[* 5] "Ceramic tiles and boards, natural stone and artificial stone on cement-based floor constructions with insulating layers"
[* 6] "Ceramic tiles and boards, natural stone and artificial stone on heated, cement-based floor constructions"

Please observe valid safety data sheet!

GIS CODE: ZP1