

ASO-EZ6

Rapid sceed cement



Properties:

- Rapid crystalline water binding.
- Rapid setting.
- Long pot life.
- Traffic after approx. 4-6 hours.
- Shrinkage compensated.
- Lay tiles after 1 day.
- For interior areas.
- Can be heated after 3 days in accordance with protocol.

Areas of Application:

ASO-EZ6 is a rapid setting cement for producing cement-based screeds that can take floor finishes early and with high strength as a bonded screed, unbonded screed, screed on insulation or as a heated screed which is suitable as a wearing finish or as a substrate for tiles, textile finishes, parquet or PVC. For installation the general regulations for cementitious screeds DIN 18560 and DIN 18353 apply. The substrate must be able to take the loading according to DIN 1055. In medium duty wet areas such as dampness classification I + II according to the ZDB information sheet [*1], screeds produced with ASO-EZ6 binder can be installed when waterproofed with a suitable SCHOMBURG bonded waterproofing system. In heavy duty wet areas such as e.g. swimming pools, swimming pool surrounds and communal showers or dampness classifications III - IV according to the ZDB information sheet [*1], install screeds produced with the binder ASO-EZ2 or ASO-EZ4 when waterproofing with a suitable SCHOMBURG bonded waterproofing system is carried out.

[*] See important advice section.

Technical Data:

Basis:	Special cement, additives
Colour:	Dark grey
Mixing ratio:	ASO-EZ6/aggregate: 1:4 to 1:5 parts by weight
Water addition:	Dependent on the moisture in the aggregate used, up to max. 40% by weight relating to the ASO-EZ6 addition; values refer to dry aggregate
Mix method:	Forced paddle mixer, Free fall mixer
Bulk density of fresh mortar:	Approx. 2.2 kg/dm ³ dependent on aggregate used.
Storage:	6 months dry storage. Use opened packaging promptly
Packaging:	25 kg bags
Cleaning:	Clean tools and equipment immediately with water.
Traffic after *):	Approx. 4 hours
Fully cured after *):	Approx. 7 days
Pot life *):	Approx 45 mins

*) values refer to 23C and 65% relative humidity. Higher temperatures reduce and lower temperatures lengthen these given times.

Approx. Coverage kg/m² ASO-EZ6:

	Mixing ratio	Parts by weight
Screed thickness, cm	1:4 * *)	1:5 * *)
1	4.1	3.4
4	16.3	13.6
5	20.4	17.0
6	24.4	20.4

* *) 1:4 parts by weight relates to approx. 1:2.7 parts by volume. 1:5 parts by weight relates to approx. 1:3.3 parts by volume.

Minimum thickness to DIN 18560

Beneath tiles	45 mm on insulation or separating layer
Beneath paraquet, carpet, linoleum or PVC	35 mm on insulation or separating layer
In general	10 mm bonded

**Product preparation:**

Use conventional screed mixers for preparation such as the Brinkmann screed boy, PFT Putzmeister Mixocret or similar. Pay attention to the moisture content of the aggregate and avoid excess water. The pot life is approx. 45 minutes at +20°C. Mixing, application and finishing must follow each other swiftly. Only measure out areas that can be completed within this pot life. Higher temperatures reduce and lower temperatures lengthen the pot life and setting time. With bonded screeds firstly brush ASO-HS-flex into the mechanically abraded concrete substrate. Lay the screed into the wet slurry coat. The general regulations for cement-based screeds DIN 18560 and 18353 should be followed for screed laying.

Mixing recommendations**for mixing and rotary feed machines:**

In a conventional mixing machine with rotary feed with a 220 litre mix capacity, e.g. Putzmeister Mixocret, mix 200 kg aggregate with 50 kg ASO-EZ6. This relates to a mixer capacity of approx. 80% - which is generally recommended by the equipment manufacturers.

Observe the following procedures:

Firstly add half the aggregate of particle size 0/8 to the mixing drum (approx. 15 shovels at 7 kg), and add the remaining water. A total of approx. 10-20 litres of water will be needed dependent on the moisture content of the aggregate. In general, 0/8 aggregate has a moisture content of approx. 4% which means that 200 kg of aggregate already contains 8 litres of water. The total mix time is approx. 2-3 minutes.

Mixing recommendations**for a free-fall mixer:**

Recommended mix ratio 1:3 by volume (relates to approx. 1:4.5 parts by weight); add approx. 3 litres water, approx. 60 kg of the aggregate (0-8 mm diameter, approx. 8 shovels) and premix with 25 kg of ASO-EZ6 for approx 1 minute. Subsequently add the remaining aggregate of approx. 40 kg (0-8 mm diameter, approx. 6 shovels) and mix for 1-2 minutes. Adjust the consistency with water from semi-dry to stiff-plastic.

Protect the screed from drying out too quickly e.g. from heat or drafts. Screeds are ready to receive tiled finishes after 1 day when a mix ratio of 1:4 parts by weight has been used with dry aggregate, to DIN 4226 with a particle size distribution between A8 - B8 nearer B8 with a consistent particle distribution, with a water addition of 20 litres per 50 kg ASO-EZ6 at an ambient and substrate temperature of +23°C and 50% relative humidity and laid 5cm thick. Confirmation should be sought by measuring the moisture content with a carbide hygrometer.

Where screeds with a particular screed quality in accordance with DIN EN 13813 are required, then trial areas

will be necessary. These should be carried out before commencing work.

Important advice:

- Instead of using ASO-HS-flex an alternative slurry bonding coat can be produced using ASOPLAST-MZ diluted 1:1 with water and a screed mortar composed of 1 part by volume ASO-EZ6 and 2 parts by volume aggregate of particle size 0-4 or 0-8 mm diameter.
- For use in areas where the aggregate quality is inadequate or where storing the mortar components is not possible or desired then the pre-blended mortars ASO-EZ6-Plus, ASO-EZ4-Plus and ASO-EZ2-Plus are available.
- The determination of the screed's readiness to receive floor finishes should be carried out using a

Important advice table 1:

Maximum moisture content of the screed determined with a carbide hygrometer

Floor finish		heated	unheated
Vapour impervious finishes		1.8%	2.0%
Textile finishes	Vapour barrier	1.8%	2.5%
	Vapour permeable	2.0%	3.0%
Parquet		1.8%	2.0%
Laminate flooring		1.8%	2.0%
Ceramic tiles, natural stone/concrete slabs	Sand: cement fixing	2.0%	2.0%
	Adhesive fixing	2.0%	2.0%

carbide hygrometer. Keep to the following values:

The measurements with the carbide hygrometer are to be carried out in accordance with the current working instructions of the FBH-AD from the technical information "coordination of cut out areas with heated floor construction".

- When too short a mix time is selected or the material is not mixed intensively enough then the dispersion of all components is not guaranteed. Early laying of floor finishes and high strength is no longer given.
- Lower temperatures, high humidity and thick screeds delay the setting, drying and achievement of readiness for laying finishes (also see the BEB data sheet "climatic requirements for the drying of screeds"). Trials have shown that at lower temperatures (+5°C to +10°C) the binding of the water proceeds heavily delayed so that the readiness to receive floor finishes is achieved after 2 days.
- Water that bleeds to the surface indicates too much water or aggregate (more than 3.3:1 by volume relating to 5:1 parts by weight), an incorrect particle size distribution or insufficient mixing. This results in a sandy surface.
- The quality of the aggregate is a determining factor



in the properties of the screed produced with it. Aggregate to DIN 4226 with a consistent particle size distribution between A and B nearer to B to DIN 1045 should be used. Where aggregates with different particle size distributions are used then the binder demand may increase. Aggregates with a particle size distribution between B and C to DIN 1045 require higher levels of ASO-EZ6. Which par-

Particle size	Minimum thickness	Maximum thickness
0-4 mm	10 mm	30 mm
0.8 mm	25 mm	80 mm
0-16 mm	50 mm	160 mm

ticle size distribution for which screed thickness should be extracted from the following table:

- ASO-EZ6 can form a crystalline bond with up to 40% of its weight in water. Quantities above this must evaporate and therefore delay the screed's readiness to receive finishes.
- If the surface of the screed cannot be sufficiently tightened during rubbing off then this indicates that too low a fines content was used in the aggregate. Here larger amounts of ASO-EZ6 are needed to replace the missing fines.
- A functioning damp proof membrane is necessary where rising damp is present in the substrate, prior to laying screeds.
- Where necessary add reinforcement with CRACK-BLOCKER (24mm). Corrosion protection for metallic mesh is not given.
- Ventilation is necessary on the building site. However drafts during the preparation, application and setting processes should also be avoided along with direct sunlight. The interior and floor temperature must be a minimum of +5°C during installation and for one week afterwards. De-humidifiers may not be used in the first 3 days.
- Do not mix with other cements or binders.
- Perimeter, bay, construction and movement joints are to be carried through or incorporated in the designated position and composed of suitable material e.g. edging strip.
- Do not add any additives.
- Follow the data sheets for the products mentioned above.
- The relevant current regulations are to be observed. E.g. DIN 18157, DIN 18352, DIN 18560, DIN 13813, DIN 1055, DIN 1045, DIN 4226, the technical information "coordination of cut out areas with heated floor construction", the ZDB data sheets

distributed by the Technical Association of the German Tile Industry.

[*1] Advice for the installation of waterproofing combined with ceramic tiles in interior and exterior areas (August 2000).

[*3] Movement joints in tiled finishes.

[*4] Advice for the installation of waterproofing combined with ceramic tiles in interior and exterior areas.

[*5] Ceramic tiles, slabs, natural stone and concrete blocks on cement-based screeds over insulation.

[*6] Ceramic tiles, slabs, natural stone and concrete blocks on cement based screeds.

[*7] Tiles finishes on the exterior of buildings.

The BEB data sheets distributed by the National Association for Screeds and Finishes.

Please observe a valid European safety data sheet!

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