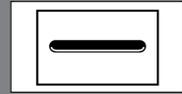




SCHÖNOX® MSE

Mono-grain special screed binder

two component screed material for the preparation of drainable load distribution layers under ceramic coverings and natural stones on balconies and terraces and low stress load distribution layers in interior areas. Because of the very good drainage capacity penetrating moisture is well-directed discharged and so damages from frost and water are avoided. SCHÖNOX MSE is splintered with SCHÖNOX MONO GRAIN 3-4 mm mixed.



Product characteristics

- 2-components
- component of the SCHÖNOX BALTERRA®-system
- for interior and exterior use
- drainage capable
- contains trass
- reduces risk of frost and exudation marks
- pumpable
- easy to apply, no bonding to the tool
- rapid setting and hardening
- low tension/stress
- under ceramic coverings and natural stones
- suitable in combination with underfloor heating systems
- low in chromate according to REACH

Applications

SCHÖNOX MSE is suitable for preparation of:

- of drainable burden-sharing layers among ceramic and natural stone tiles in exterior areas, on balconies and terraces.
- a low-stress and rapid drying screed. For interior and exterior use under ceramic and natural stone coverings. Due to the rapid drying and the low shrinkage deformation will be prevented.
- SCHÖNOX MSE allows of its excellent drainage capacity to discharge moisture ingress into the construction and thus prevent frost damage and water damage. Efflorescence are as far as possible prevented and do not settle on the surface.

Requirements of substrate

- Adequate strength, load bearing capacity, dimensional stability and permanent dryness.

- Subfloors with expected raising damp should be protected in compliance with the standard.
- Free of residues which reduce adhesion, e.g. dust, dirt, oil, fat and loose particles.
- Surface treatments or any "friable" areas of the subfloor must be mechanically removed and the subfloor repaired with SCHÖNOX levelling compounds as required.
- In exterior areas the substrate must be sufficiently stable and must have a sufficient slope of at least 2,0 %.
- In case there is no sufficient slope, a sloping bonded screed needs to be established underneath the seal.
- On balconies, we recommend a waterproofing according to the standard and appropriate alkaline-resistant border constructions like stainless steel sheet at the open sides.
- Non-alkali-resistant border constructions made of e.g. Aluminum, zinc or copper must be protected against corrosion. Possibly prime with SCHÖNOX GEA and quartz sand 0.2-0.8 mm.
- On balconies with visible water drainage SCHÖNOX MSE is suitable to a limited extend.
- For terraces with contact to the soil and direct house connection a waterproofing according to the standard or to the German flat-roof guidelines is recommended.
- Roof terraces (above inhabited rooms) and other areas with basement always a construction / waterproofing according to the standard or the German flat-roof guidelines is necessary.
- Alternatively to a waterproofing according the standard in normal loaded areas the SCHÖNOX BALTERRA®-Systems can be used.
- The installation in combination with a drainage mat improves the drainage effect (for example Schüter-Systems, Blanke, Gutjahr).

Technical data

- Basis: special binder
- Working time: appr. 2 hours at +20 °C
- Ready for foot traffic: after approx. 24 hours
- Ready for covering: after approx. 3 days
- Application (air) temperature: +5 °C to +30 °C
- Temperature resistance: with underfloor heating up to +45 °C supply temperature
- Drainage/water conductivity: 0,032 l / (m x s)
- Material consumption: approx. 1,8 kg ready-mixed material per m²/mm

All values are approximate and are subject to climatic fluctuations.



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- If SCHÖNOX MSE is used in trafficable areas, there must be a bonded construction and the concrete must be watertight. Alternatively, the concrete must have a sufficient slope to drain the water.
- For indoor application, the use and surface preparation is analogue to the use of a cementitious screed as burden-sharing layer.

Mixing ratio

Parts by weight:

- 1:4 (binder : Aggregate)
- For 31,25 kg ready-mixed material approx. 2,0-2,5 l water

Recommended method of working

- Mix SCHÖNOX MSE in a rotary-drum mixer or compulsory mixer.
 - Spread and compact SCHÖNOX MSE like a traditional cement screed in an even thickness on the waterproofing. Waterproofing according to DIN 18 195 Part 2 is protected with a foil (for example a polyethylene foil with 0.2 mm thickness). Alternatively, the waterproofing may be protected with a drainage mat.
 - Edge and movement joints should be taken over.
 - The layer thickness of SCHÖNOX MSE is to choose according to underground construction and subsequent loading.
 - The information on the minimum thickness at the different superficial loadings are only related to SCHÖNOX MONOKORN 3-4 mm as aggregate. If another aggregate for example a fine flint quartz, granite or basalt as a mono grain aggregate (3-5 mm, 3-8 mm, 5-8 mm) is used and a certificate is required, it must be proven for each case by a laboratory test. Please, contact the technical support of SCHÖNOX.
- Use of SCHÖNOX MSE as bonded screed**
- superficial load 1,5 kN/m² - layer thickness at least 35 mm
 - superficial load 2,0 kN/m² - layer thickness at least 35 mm
 - superficial load 3,0 kN/m² - layer thickness at least 40 mm
 - superficial load 4,0 kN/m² - layer thickness at least 50 mm
- Use of SCHÖNOX MSE as floating screed**
- **Compressibility of the insulating layer up to 5 mm**
- superficial load 1,5 kN/m² - layer thickness at least 45 mm
 - superficial load 2,0 kN/m² - layer thickness at least 45 mm
 - superficial load 3,0 kN/m² - layer thickness at least 55 mm
 - superficial load 4,0 kN/m² - layer thickness at least 65 mm
- **Compressibility of the insulating layer > 5 mm up to 10 mm**
- superficial load 1,5 kN/m² - layer thickness at least 45 mm
 - superficial load 2,0 kN/m² - layer thickness at least 50 mm
 - superficial load 3,0 kN/m² - layer thickness at least 60 mm
 - superficial load 4,0 kN/m² - layer thickness at least 70 mm
- Because of the mono grain structure it could be helpful to do the screeding using setting jigs.
 - After screeding SCHÖNOX MSE slightly smooth the surface using a metal smoothing trowel. A machine-based smoothing is not necessary.
 - Take care that the mortar consistency is not adjusted to plastically, as thereby during the installation, the mortar can be too strongly compressed and the drainage effect can be negatively influenced.
 - Protect fresh screeds against direct sunlight, draft and rain.
 - SCHÖNOX MSE is ready for covering after appr. 3 days.
 - Use SCHÖNOX Q12, SCHÖNOX Q6, SCHÖNOX Q6 W or SCHÖNOX Q4 RAPID

with the buttering method for laying ceramic tiles or suitable natural stones in exterior areas. Use a thin bed mortar adapted to the covering and the expected load in interior areas.

- The tiles are laid using the buttering method. Take care that joints are free of adhesive, because this improves the de-watering of the covering. If needed rake-out the joints.
- Subdivide field sizes according to the DIN 18560 and to the ZDB-leaflet "Floor covering from tiles and slabs, exterior".
- The grouting should be done with the fast universal flexible grouting mortar SCHÖNOX SU or with the mechanical high loadable grouting mortar SCHÖNOX XR 40. For porous natural stones and natural stones with sensitive surface we recommend a test grouting.
- Heating screeds according to DIN EN 1264 start to warm up after 3 days. Therefore hold 3 days a flow temperature of 25 °C and afterwards the maximum flow temperature (max. 45 °C) for 4 days. Subsequent warm down the screed until up to the cooling-off (protect for draught and rapid cooling-off). Lay floor coverings up to 18 °C surface temperature (corresponds to a flow temperature of 20 to 25 °C - depending on surrounding temperature).
- With heating screeds we recommend to follow the guideline "Schnittstellenkoordination bei beheizten Fußbodenkonstruktionen" from Bundesverband Flächenheizung e.V.
- Clean tools in water immediately after use.

Packaging

- 25.0 kg binder component
- 25.0 kg aggregate

Storage

- Store SCHÖNOX MSE in cool, dry conditions.
- Store SCHÖNOX MSE binder component: storage life 1 year (in closed packaging).

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- Store SCHÖNOX MSE aggregate component: storage life 2 years (in closed packaging).
- Opened packages should be closed immediately and used up as soon as possible.

Disposal

- Empty packaging of all trickles and dispose of in accordance with the regulations.
- For the disposal of product residues, waste water and containers with adherent product residues please follow the local governmental regulations.

GISCODE

- ZP1 - cement products, low in chromate

EPD - Self-declaration

Sika Deutschland GmbH declares that the product fulfills the criteria for modified mineral mortars of group 2.

ENVIRONMENTAL PRODUCT DECLARATION

acc. to ISO 14025 and EN 15804

Owner of declaration

FEICA - Association of the European Adhesive and Sealant Industry

Editor

Institut für Bauen und Umwelt e.V. (IBU)

Program owner

Institut für Bauen und Umwelt e.V. (IBU)

Number of declaration

EPD-FEI-20160042-IBG1-EN

Instructions

- SCHÖNOX MSE contains cement. Alkaline reaction when it comes in contact with moisture, therefore protect skin, eyes and respiratory system. Do not breathe in dust. In case of contact rinse immediately with plenty of water. In case of contact with eyes seek additional medical advice.
- High humidity, low temperatures and high thickness will retard, whilst high temperatures will accelerate the setting and readiness for covering.

- Mix SCHÖNOX MSE only with the mentioned materials. Do not mix with cements or other chemical additives.
- Only use aggregates according to DIN 4226. The aggregates may be not contain harmful ingredients, colouring agents or organic substances.
- Please follow the relevant product data sheets when using complementary products. If in doubt, we recommend obtaining further information from the manufacturer.
- All values are approximate and are subject to local climatic fluctuations.
- The requirements of the relevant valid standards, guidelines and data sheets apply.

The applicable recommendations, guidelines, DIN regulations and safety data sheets are to be observed, together with the recognised architectural and engineering regulations. We guarantee that our products leave the factory in perfect condition. While our recommendations for use are based on tests and practical experience, they can only provide general guidance without any assurance as to product characteristics, since we have no influence over the conditions on site, the execution of the work or the method of processing. This product data sheet supersedes all previous editions.



The Sika management system is certified to ISO 9001 and 14001 by SQS

Sika Deutschland GmbH

Subsidiary Rosendahl

P.O. Box 11 40

D-48713 Rosendahl / Germany

Phone +49 (0) 2547-910-0

Fax +49 (0) 2547-910-101

E-mail: info@schoenox.de

www.schoenox.com