

AKS Coatings GmbH

A new Generation of Protective Surface Coatings

AKS-CS Slurry Sealant

Mineral-based Slurry Sealant with High Sulphate Resistance

Technical Information 01.2014

Product Description

AKS-CS is a mineral-based slurry sealant with a high resistance to sulphate. It is pre-mixed in accordance with the regulation DIN 18 557.

Properties

Upon hardening **AKS-CS**

- withstands up to 15 metres of water pressure
- has an intermediate resistance to sulphates, as dictated by DIN 4030
- is easily diffused by water vapour
- is toxicologically harmless
- forms a strong bond to all mineral substrates
- meets the requirements of the technical data sheet "In-elastic and Elastic Mineral-Based Waterproofing Slurries" from the Society of Construction Chemical Professionals in Germany

Areas of Usage

AKS-CS is appropriate for the internal and external sealing in new construction and renovation. Furthermore, manhole and waste water treatment plants, concrete beds as well as reservoirs can be sealed long-term against capillary water, soil humidity and stagnant surface water.

Application Instructions

Substrates

All mineral substrates, such as concrete, screed, cement plaster and masonry as well the full line of AKS-repair mortars.

Requirements for Structures

The structure or construction to be coated should be free from fissures and remain so. It must be adequately sturdy and not subject to movement. **AKS-CS** is not suitable for the sealing of mixed masonry.

Substrate Preparation

Clean the surface in accordance with ZTV-SIB 90, for example through cleaning measures such as compressed air blasting, shot blasting, grinding with solid blasting agents, milling etc.

Remove all loose parts and materials which could interfere with binding such as oils, greases, coating residues, and the cement sinter layers down to the solid substrate, so as to ensure a good bond.

Recommended surface adhesive pull strength: 1.5 N/mm² minimum

The substrate must be pre-moistened to capillary saturation; standing water must be removed.

Additional recommendation for new concrete surfaces

Ensure that a reasonable setting time will be allowed (28 days). After-treatment and parting agents must be removed. Avert the spilling of mineral-based slurry onto concrete surfaces if need be with crosswise brushstrokes.

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Compensating for Surface Finish and Defects in Substrates:

Compensate for and profile surface finishes and defects with **AKS Repair mortar systems**. Fill scrapes, sealing into pores and cavities, by using AS-CS together, if necessary, with quartz sand. Reworking of compensated surface finishes should come after bonding has completed.

Mixing process

Mix **AKS-CS** with plain water or **AKS-F** using a slow mixer until a uniform consistency is achieved. In doing so, be very careful to add only very little water at a time to **AKS-CS** until the trapped air has escaped. Finally, add more catalyst until the mixture is thin enough to have the consistency of slurry. The blended material should not be so thin as to drip from the applicator.

Application

AKS-CS can be either sprayed or coated onto pre-treated, well-moistened surfaces in several work steps. Note that the slurry should be applied evenly in coats, each with a thickness of roughly 2 kg/m², so as to avoid deficiencies in the seal.

While the product is being applied and 48 hours afterwards, the substrate temperature may not fall below +5°C or exceed +30°C. The material temperature should not be below +10°C and should not exceed +30°C.

Allow each filler application to dry for 6 - 24 hours before applying the next coat. Additionally, before proceeding, ensure that the previous filler application has sufficiently set so that an additional application will not cause any damage.

Please note

Specific solutions can also be taken from the technical data sheet "In-elastic and Elastic Mineral-Based Waterproofing Slurries" from the Society of Construction Chemical Professionals in Germany.

Preservation of the Seal

The seal should be protected from physical damage when exposed to excavation, movement of heavy items on top of floors, etc.

After treatment

Take appropriate measures to protect the surface from direct sunlight, rain and frost for example using tarpaulins, cloths etc. The regulations for the curing of cement-bonded construction materials apply.

Cleaning and disposal

The tools can be cleaned using plain water. Material residues, delivery packaging and mixing containers must be disposed of properly.

Waste codes

Waste code product	160303
Waste code product residues	170904
Waste code packaging (uncleaned)	150110

Safety precautions

Before you begin work, we recommend that you apply greaseless skin creme to your skin. Also, protective clothing, safety glasses and safety gloves must be worn.

While working with the product do not smoke, drink or eat!

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Do not permit large quantities of dust to form!

In case of skin or eye contact, immediately flush with clean water for at least 15 min and visit an Ophthalmologist straight away. Observe the specifications of the safety information sheets and the accepted engineering rules with regard to handling cement-bonded materials.

Storage

The product should be stored in a dry room within the original unopened package. The storage temperature should be no less than +5°C and should not exceed +30°C.

Storage stability

If stored appropriately: 12 months

Packaging

25 kg paper bag with poly insert

Technical Data

Material base: cement-bonded
Powder density: ca. 1,4 kg/dm³
Colour: dark grey powder
Mixing liquid: plain water or **AKS-F**
for further information see Technical Information AKS-F
Mixing liquid requirements: ca. 0,22 - 0,27 l/kg
Application Time: ca. 1 hour (dependent on temperature)
Water impregnability: up to 15 m (water column)
Coverage: 3 - 4 kg/m² for moist floors or against standing water
4 - 5 kg/m² against water under pressure

after days:	Compressive Strength	Bending Tensile
2 days	14 N/mm ²	4 N/mm ²
7 days	26 N/mm ²	6 N/mm ²
28 days	26 N/mm ²	7 N/mm ²
90 days	41 N/mm ²	8 N/mm ²

Adhesive tensile strength: 3 N/mm²

Contact:

AKS Coatings GmbH
Gersdorfer Straße 13-15
D-68804 Altlußheim

Fon +49 6205 3086 52-0
Fax +49 6205 3086 52-1
Mail info@aks-coatings.de

www.aks-coatings.de

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