

# Osmocem SCK

Osmotic waterproofing mortar, with active crystalline agents



Fiber-reinforced monocomponent cement mortar, based on hydraulic binders, superprogolite fillers, selected fine aggregates and crystallizing reagent agents, which favor the penetration of the compound into the support. Ideal for low-thickness protective coatings (4 to 10 mm), with high counterweight adhesion. The specific formulation makes this product ideal for coatings in aggressive environments in contact with chlorides and sulphates (sewage systems).

**CUSTOMS CODE:** 3824 5090

**COMPONENTS:** Single-component

**APPEARANCE:** Powder

**AVAILABLE COLORS:** Gray

**PACKAGING AND DIMENSIONS:** Bag 25 kg

## OBTAINED CERTIFICATIONS AND REGULATIONS



## FEATURES AND BENEFITS

Osmocem SCK has a rapid hardening even at low temperatures (even close to 0 ° C), excellent resistance to freeze-thaw cycles and a remarkable resistance to hydrostatic pressure, even in negative phase (counter-thrust). Thanks to the particular crystallising agent of which it is added, it also has a strong tendency to self-healing in case of cracks, as well as a very high cohesion to the support due to its penetrating characteristic (osmotic crystallising).

## FIELDS OF APPLICATION

Concerning concrete counter-ground works, underground rooms and constructions, tunnels, hydraulic and infrastructural works and sewer systems, the Osmocem SCK compound is ideal for low-speed regularisations, shavings and coatings, provided they are sufficiently porous and absorbent and free from any waterproofing and / or water-repellent surface treatment, whether chemical (siloxanes, epoxies, polyurethanes, etc.) or natural (wax-up). Resistant to both positive and negative thrust impermeabilizations (counter-thrust).

## ALLOWED SUPPORTS

Concrete - Prefabricated concrete - Bricks - Mixed walls (bricks and stones) - Brickworks - Stone walls - Rock walls

## PREPARATION OF SUPPORTS

The surfaces that are the subject of the operation should be healthy, compact and clean. Carefully remove dirt and any pollutant by removing the layers that are not tight, labile and not adequately resistant. Application surfaces should be abundantly and homogeneously moistened before application, while avoiding water stagnation on the surface.

## MODE OF USE

To prepare the prepared mortar, add about 2/3 of the expected dough water to the mixer, gradually add the contents of the Osmocem SCK bag and finally the remaining water; Extend the mixing until a homogeneous, bulk-free mix is obtained. When mixing is completed, wait a few minutes before applying. It can be applied either manually (trowel and broom) or by specific pumping equipment, with spritz-concrete, even sprayed technique. In the case of tunnel and tunnel impermeabilizations, Osmocem SCK mortar can be used as a waterproofing layer between two containment spritz-concrete.

## APPLICATION METHODS

Brick trowel - Finishing trowel - Shotcrete machine - Spatula

## TOOL CLEANING

Water

## KEY FEATURES

- |   |   |
|---|---|
|  Density: 1.9 kg/dm <sup>3</sup>          |  Max. recommended thickness: 20 mm |
|  Maximum diameter of aggregate: 2.0 mm    |  Min. recommended thickness: 4 mm  |
|  Mix with water: 16-18 %                  |  Nonflammable                      |
|  Pot-life: 45 min                         |  Shelf-life: 12 months             |
|  Suitable for contact with drinking water |   |



## TECHNICAL SPECIFICATIONS

*UNI EN 1015-11*

Compressive strength after 28 days > **45 N/mm<sup>2</sup>**

Resistant to chemical agents

*UNI EN 13529*

Adhesion to the support after 28 days of contact with sulfuric acid (pH 4.5) > **2.4 N/mm<sup>2</sup>**

Capillary absorption **0.17 kg·h<sup>0.5</sup>/m<sup>2</sup>**

Darcy impermeability <**1x10<sup>-10</sup> cm/s**

*UNI EN 13687-1*

Thermal compatibility **2.18 MPa**

*UNI PdR 88:2020*

Total recycled content ≥ **4.0 %**

*pH*

Resistant to sulphates **4.5**

Shore D hardness after 28 days of contact with sulfuric acid (pH 4.5) **82**

*Shore D*

Hardness **83**

*Group 10, 11, 12 UNI EN 13529*

Resistance to severe chemical attacks **classe II**

*UNI EN 13036-4*

Skid resistance **65.0**

*UNI EN 1015-11*

Flexural strength after 28 days > **6 N/mm<sup>2</sup>**

*Sd EN ISO 7783-1*

Permeability to water vapor **CLASS I**

*UNI EN 12390-8*

Water penetration under pressure (5 bar for 72 hours) ≤ **10 mm**

Chloride content <**0.01 %**

*EN 13412*

Static elastic modulus > **21000 N/mm<sup>2</sup>**

*Adesione al supporto UNI EN 1015-12*

Bonding force **2.2 N/mm<sup>2</sup>**

*UNI EN 1015-18*

Water penetration after capillary absorption **2.2 mm**

## CONSUMPTION

Approximately 1.7 kg/m<sup>2</sup> of Osmocem SCK for each millimetre of thickness to be made.

## STORAGE AND CONSERVATION

Inadequate storage of the product may result in a loss of rheological performance. Protect from humidity.

## PHOTO GALLERY



## ADDITIONAL CONTENT



## WARNINGS AND PRECAUTIONS

Do not apply in case of direct exposure to sunlight and excessive direct ventilation. Protect the fresh (applied) mortar during hardening/curing period from excessive and rapid loss of humidity and from sudden temperature change.

Do not apply on little or non-porous substrates or previously coated with water-repellent treatments in general, if not after appropriate roughening by bush hammers, sanders and equipment suitable for preparatory treatments of substrates, or after appropriate treatment with suitable polymeric primers. The general information, along with any instructions and recommendations for use of this product, including in this data sheet and eventually provided verbally or in writing, correspond to the present state of our scientific and practical knowledge.

Any technical and performance data reported is the result of laboratory tests conducted in a controlled environment and thus may be subject to modification in relation to the actual conditions of implementation.

Azichem Srl does not assume any liability arising from inadequate characteristics related to improper use of the product or connected to defects arising from factors or elements unrelated to the quality of the product, including improper storage.

Those wishing to utilise the product are required to determine prior to use whether or not the same is suitable for the intended use, assuming all consequent responsibility.

The technical and characteristic details contained in this data sheet shall be updated periodically. For consultation in real time, please visit the website: [www.azichem.com](http://www.azichem.com). The date of revision is indicated in the space to the side. The current edition cancels out and replaces any previous version.

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