

#### OSM.0263

### **OSMOCEM SCK**

Osmotic waterproofing mortar, with active crystalline agents

#### Customs Code

3824 5090



- Bag 25 kg

# Application

- Brick trowel
- Finishing trowel
- Shotcrete machine
- Spatula
- Low pressure airless nebulizer

Family Osmocem

Infratech

Osmotic one-component cement compounds

Product Lines Functional Cathegories

- Aqua Osmotic waterproofing
  - Structural maintenance of dams, reservoirs, ducts and water ducts
  - Structural maintenance of tunnels
  - Construction of underground works in high performance waterproof concrete
  - Waterproofing chemical-resistant coating of sewing and digesters

Components Appearance Single-component Powder

# **Certifications** and legislations



EN 998-1

Specification for Mortar for Masonry - General purpose rendering/plastering mortar (GP)  $\,$ 



EN 1504-3

Products and systems for the protection and repair of concrete structures - Structural and non-structural repair (R4)

D.M. 06/04/2004 n. 174 D.M. 06/04/2004, n. 174

Regolamento concernente i materiali e gli oggetti che possono essere utilizzati negli impianti fissi di captazione, trattamento, adduzione e distribuzione delle acque destinate al consumo umano.

# General description

Fiber-reinforced monocomponent cement mortar, based on hydraulic binders, superprogoline 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).

#### General **features**

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).

# **Dosage**

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

### 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).



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#### Basic **features**

**KG** 1

Density: 1.9 kg/dm<sup>3</sup>

Max. recommended thickness: 20 mm

MAX

Maximum diameter of aggregate:  $2.0 \ mm$ 

→I← Min. recommended thickness:

Mix with water: 16-18 %

Nonflammable

Pot-life: 45 min

Shelf-life: 12 months

4

Suitable for contact with drinking water

Available **colours**Gray

### **Technical** specifications

Adhesion to substrate: 2.2 N/mm<sup>2</sup>

Bonding force (UNI EN 1015-12): 2.2 N/mm<sup>2</sup>

Capillary absorption: 0.17 kg•h^0.5/m<sup>2</sup>

Chloride content: <0.01 %

Compressive strength after 28 days (UNI EN 1015-11):  $> 50 \text{ N/mm}^2$ 

Darcy impermeability:  $<1x10^{-10}$  cm/s

Flexural strength (UNI EN 1015-11): > 6 N/mm<sup>2</sup>

Resistance to severe chemical attacks (UNI EN 13529): classe II \_

Resistant to chemical agents

Resistant to sulphates pH: 4.5

Skid resistance (UNI EN 13036-4): 65.0

Static elastic modulus (EN 13412): > 21000 N/mm<sup>2</sup>

Thermal compatibility (UNI EN 13687-1): 2.18 MPa

Water penetration after capillary absorption (UNI EN 2.2 mm

Water penetration depth (UNI EN 12390-8): 40 mm

### Tools cleansing

• Water

# Applicable on

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

### Substrate **preparation**

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.

#### **Instructions** for 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.



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### **Storage** and preservation

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



### Warnings, Precautions and Ecology

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. The date of revision is indicated in the space to the side. The current edition cancels out and replaces any previous version.

Please note that the user is required to read the latest Safety Data Sheet for this product, containing chemical-physical and toxicological data, risk phrases and other information regarding the safe transport, use and disposal of the product and its packaging. For consultation, please visit: www.azichem.com.

It is forbidden to dispose of the product and/or packaging in the environment.

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.

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