



**FINOMIX®**  
DRY MORTARS

## Technical Data Sheet

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# SD 90 décor•micro flex

**elastic microcement  
mortar for floor  
& wall applications**

- High elasticity
- Excellent resistance to moisture
- High mechanical strength
- Outstanding decorative solution



# SD 90 DÉCOR•MICRO FLEX

elastic microcement mortar for floor & wall applications

## DESCRIPTION

Elastic, extra-fine graded, highly-durable microcement mortar, for floor and wall applications, indoors and outdoors.

It exhibits high flexibility, increased mechanical strength and durability, as well as resistance to moisture.

SD 90 DÉCOR•MICRO FLEX consists of a specially formulated blend of ultra-fine Portland cement-based binders and pozzolanic additives, fine aggregates, while it is further reinforced with polymer resins and other special performance-enhancing additives.

It is produced in white but can also be easily coloured with **NATURAL COLOURS** pigments in powder form.

Classified as cementitious product for surface protection systems for concrete according to European standard EN 1504-2, type PCC R3 mortar for structural and non-structural repair of concrete structures according to EN 1504-3, and type CT-C25-F9-AR2 screed material according to EN 13813.

## APPLICATIONS

Used to create uniform, seamless, durable, decorative microcement coatings on floors and walls, as well as custom-made structures like bathtubs, washbasins, countertops, furnishings, etc.

Due to its high flexibility it is ideal for surfaces that are subject to intense stresses (movements, vibrations, etc.), e.g. gypsum boards, cement boards, underfloor heating applications, etc. It can also be applied on old mosaics, tiles or natural stones.

It is ideal for renovations, restorations and new constructions.

Suitable for indoor and outdoor applications.

## PROPERTIES / ADVANTAGES

- Seamless application, without joints.
- High mechanical strength and excellent adhesion to the substrate.
- Offers high elasticity, eliminating the need for any additional reinforcing admixtures.
- Exhibits very high resistance to moisture, making it ideal for areas with constant exposure to humidity.
- Can be coloured in any desired shade using the **NATURAL COLOUR CREATIONS** tinting system.

- Excellent decorative solution for modern residences, commercial places, but also for traditional villages and islands.
- Suitable for indoor and outdoor applications.
- Also available in 10kg containers for easier mixing and application.

## HARMONIZED STANDARDS / REGULATIONS

- **EN 1504-2:** Cement-based product for surface protection systems for concrete - Coating (C).
- **EN 1504-3:** Cementitious mortar for structural and non-structural repair of concrete structures, type PCC R3.
- **EN 13813:** Cementitious screed material, type CT-C25-F9-AR2.
- **Regulation (EC) No. 305/2011:** CE marked product with Declaration of Performance (DoP): SD90DMF/CPR-7-13/068/08-2018.

## APPLICATION INSTRUCTIONS

- The substrate must be stable, clean from dust, grease, subtle materials, etc., prior to application.
- Porous surfaces are treated with **ACRYLIC PRIMER** deep-penetrating primer in order to stabilize them and minimize absorbency.

### Wall application

- In case the substrate has irregularities or joints (gypsum/cement boards) apply a layer of the levelling base mortar **SD 300** and embed a 160g/m<sup>2</sup>, 4x4mm fiberglass mesh in it. Treat the substrate first with the acrylic adhesion-promoting primer (**FINO•CONTACT**) and as soon as it is dry and stable, apply **SD 300** with a notched trowel. The fiberglass mesh is embed in the fresh layer of **SD 300** which is then levelled in order to cover and hide the mesh completely. If necessary add a second layer of **SD 300**. Let the surface dry for 24-48 hours, sand it and apply the deep penetrating primer **ACRYLIC PRIMER**.
- Prepare **SD 90 DÉCOR•MICRO FLEX** by adding the dry content of the bag or container into the necessary clean water under continuous stirring until a homogeneous mortar without lumps is formed, having the necessary workability. Mixing can be done with a mortar mixer or a low-speed electric mixer. In case you desire to create a colour tone with **NATURAL COLOURS**

inorganic pigments, it is necessary to pre-dilute the pigments in water separately and then introduce them in the mixing water before adding the dry mortar.

- The mixture is applied with a steel trowel in two or more layers. Each layer should be 1-2mm thick. Each consecutive layer is applied after the previous one is dry. Between layers sand the surface lightly and clean the generated dust.

#### Floor application

- On floors it is more preferable to apply the water-based epoxy primer **EPOXY•PRIMER** and spread fine-graded quartz sand on the fresh layer. After the primer is completely set (24 hours) remove the part of the quartz sand that is not adhered on the primer layer using a vacuum suction machine.
- Then, apply the levelling base-mortar **SD 300** and continue following the same instructions as described above for wall application.

#### Protective coating application

- 7-10 days after application, the surface of microcement can be treated with the special protective polyurethane varnishes **DECODUR COAT•PU 2K** with gloss or matte finish. The varnishes protect the surface of the microcement from stains like oil, wine, coffee, etc., render the surface water tight and increase abrasion resistance.
- Please refer to the product's Technical Data Sheet for further instructions concerning the application of protective varnishes.

#### Microcement mortar colouring

- For colouring the microcement mortar, **NATURAL COLOURS** natural powder pigments are used. With the 10 different pigments, unlimited colour combinations can be created.

- The desired shade for the microcement mortar is selected with the help of the **NATURAL COLOUR CREATIONS** colour chart.
- The pigments used for the selected shade are poured into the container with water and mixed thoroughly until completely dissolved. Ideally, for optimal solubility, the pigments should first be poured into a smaller container with a small amount of water and stirred well to create a fluid paste. Then, this paste is added to the container with the remaining water.
- It is important that the pigments are fully dissolved **before** being incorporated into the microcement mortar.

#### CLEANING OF EQUIPMENT

Clean all tools and application equipment with water immediately after use. Hardened material can only be mechanically removed.

#### RECOMMENDATIONS

- Temperature during application should be between +5°C and +35°C.
- Do not mix the product with dirty or salty water.
- Don't use excess water for mixing as it will affect the performance of the product.
- Don't mix the product with cement, aggregates or admixtures.
- Do not add water after the mix has started to set.
- In periods of high temperatures or strong winds, the surfaces must be thoroughly moistened during the following 24 hours in order to be protected from premature dehydration.

TECHNICAL CHARACTERISTICS	
PRODUCT CHARACTERISTICS	
Appearance	cementitious powder
Colour	white
Bulk density	1.30 ±0.05 kg/lt
APPLICATION CHARACTERISTICS (+23°C / 50% R.H.)	
Mixing ratio	30% b.w. (6kg of water / 20kg bag) (3kg of water / 10kg container)
pH	> 10
Density (EN 1015-6)	1.75 ±0,05 kg/lt
Pot life (EN 1015-9)	1 hour (20°C)
Application temperature	minimum: +5°C / maximum: +35°C
Maximum application thickness per layer	1-2 mm
Consumption	approximately 1.2-1.4 kg/m <sup>2</sup> for a 1mm thick layer
Ready for foot traffic	24 hours
Application of protective treatment	7-10 days
PERFORMANCE CHARACTERISTICS	
Adhesion to concrete (EN 1542, MC 0,40)	≥ 2.0 kg/lt
Adhesion after 50 freeze-thaw cycles (EN 13687-1)	≥ 1.5 kg/lt
Compressive strength after 28 days dry storage (EN 12190)	≥ 25.0 N/mm <sup>2</sup>
Flexural strength after 28 days dry storage (EN 13892-2)	≥ 7.5 N/mm <sup>2</sup>
Abrasion resistance (Böhme) (EN 13892-3)	9 cm <sup>3</sup> /50 cm <sup>2</sup>
Capillary water absorption (EN 13057)	< 0.2 kg·m <sup>-2</sup> ·h <sup>-2</sup>
In use temperature	from -30°C to +90°C
Reaction to fire (EN 13501-1)	Class F

**Note:** Measurements were conducted in a laboratory environment. The varying conditions present on-site (temperature, humidity, ventilation, substrate absorbency) may affect the material's properties.

#### SAFETY PRECAUTIONS

- The product contains cement which has an alkaline reaction with water and is classified as irritant.
- Always wear appropriate personal protective equipment for eyes and skin (protective clothing, gloves and goggles).
- If skin contact occurs, rinse well with plenty of clean water.
- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- Consult product's Safety Data Sheet for further instructions on safety handling.
- **PRODUCT FOR PROFESSIONAL USE.**

#### PACKAGING - STORAGE

Available in:

- 10kg plastic containers
- 20kg paper bags.

**Storage:** 12 months from production date, if stored in original, sealed packaging, protected from direct sunlight and moisture.

## LEGAL NOTICE

The technical characteristics and recommendations for the use and application of the **FINOMIX** range of products are based on the knowledge and experience of the company. The above information shall be considered merely indicative and subject to confirmation after long-term practical application. For this reason, anyone who intends to use the product must

ensure that it is suitable for the envisaged application. Since the specific site conditions during the applications are beyond the control of our company, the user alone is fully responsible for any consequences deriving from the use of the product. **FINOBETON S.A. (FINOMIX)** has the right to modify the properties of its products without prior notice. This release voids any previous publications issued for this technical specifications sheet.

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