

Floor Q SFR

Super-fluid composite structural mortar for concrete with reduced thickness



Floor Q SFR is a pourable, plastic/fluid grout that can be used for repairs on deteriorated floors, restorations and structural reinforcements of reinforced concrete with an increase in ductility. The formulation contains ultra-fine, highly resistant cements, microsiliicas with pozzolanic activity, aggregates in a rational granulometric curve (0.1÷5.0 mm), special additives and Readymesh MM-150 carbon steel fibers. The particular morphology of this fiber gives the applied product an exceptional reduction in hygrometric shrinkage, the dissipation of efforts in the case of heavy stresses and high compressive and flex-tensile strengths. The product is mixed with very low water/binder ratios (<0.32).

CUSTOMS CODE: 3824 5090

COMPONENTS: Single-component

APPEARANCE: Powder

AVAILABLE COLORS: Gray

PACKAGING AND DIMENSIONS: Bag 25 kg - Pallet: 50 x (Bag 25 kg)

OBTAINED CERTIFICATIONS AND REGULATIONS



FEATURES AND BENEFITS

The special formulation of Floor Q SFR allows a fluid plastic rheology without bleeding and segregation, giving the repairs carried out: mechanical resistance, fracture energy, exceptional durability and very high chemical-physical resistance. Floor Q SFR has a workability time of approximately 120 minutes, after which the setting process is triggered followed by progressive hardening. The hygrometric shrinkage is extremely low, guaranteeing volumetric stability to the restoration carried out. The performances that make Floor Q SFR unique are: • resistance to dynamic stress, • fatigue resistance, fracture energy, toughness and resistance to post-rupture load, • very high compressive strength (> 95 MPa after 28 days), • very high mechanical flexural strength (> 14 MPa after 28 days), • excellent durability and resistance to chemical attacks. Minimum recommended thickness: 25 mm (flooring) 50 mm (formwork casting)

FIELDS OF APPLICATION

Floor Q SFR is used in structural reinforcement and in the repair of deteriorated floors with overlays characterized by high performance in terms of deformation capacity and anti-cracking resistance. The main fields of application are:

- repair of deteriorated industrial floors with reconstruction of the thickness of the concrete removed by milling (classic application thicknesses from 25 to 50 mm), set on for foot traffic after about 12-20 hours after casting and suitable for traffic after 36-48 hours depending on the ambient temperature 'deed of application;
- repair of industrial floor joints;
- reinforcement of floors with the low thickness extradossal capping technique (minimum thickness 25 mm);
- installation and fixing of manhole covers;
- any kind of repair and structural restoration carried out with castings in formwork such as, for example, the cladding of pillars and beams; in this case the maximum recommended thickness can reach up to 60-100 mm (for higher thicknesses we recommend the addition of Ghiaietto 6.10 with addition percentages that can vary from 20 to 40%; in these cases ask our technical service for advice on the correct addition percentages);
- regularization of radiant floor substrates with fillers starting from 25 mm



ALLOWED SUPPORTS

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

PREPARATION OF SUPPORTS

The substrate must be prepared by mechanical scarification or hydroscarification for a depth of no less than 5 mm. Scarifying the substrate is an absolutely necessary operation to ensure good adherence of the applied coating. In the case of substrates that are not rough enough, insert connectors or prime the surface with epoxy resins for construction joints such as Syntech RGS or Syntech Pavisheer. In the case of localized patches or repairs, cut the contours at right angles with an angle grinder.

The support must not have traces of oils, greases, detergents, protective coatings in general or other substances that could compromise the adhesion of the grout to the support. The support must be healthy, clean, rough, without loose parts or dust (suction under strong depression with suitable equipment for all dust and debris) with tensile strength > 1 N/mm². Wash the surface with pressurized water and saturate the substrate with water before applying, eliminating any excess water on the surface before applying the grout.

MODE OF USE

- Application temperatures: 5° ÷ 30° C.
- It is strongly recommended, both for an effective mixing of the fiber reinforcement and for an optimal yield of site operations, to use a vertical axis mixer with planetary movement. Pay attention, in all site operations, to the content of metal fiber reinforcement abundantly present in the premix, wearing suitable individual protection gloves.
- MIXING: mix the entire contents of the bag with drinking water at a rate of 11% - 12.5% referring to the total weight of the mortar (about 2.75 - 3.13 liters per 25 kg bag) until the mixture is homogeneous. Mixing time: about 4 minutes with high efficiency mixer. • In the case of large thicknesses, help the movement and compaction of the grout with a vibrating needle without exceeding the vibration time (a few seconds)
- In applications on industrial floors and slabs, level the surface with a vibrating straight edge on the prepared templates. In the case of thicknesses greater than 50 mm, insert electro-welded mesh anchored to the support with "L"-shaped metal connectors fixed in special holes resined with Syntech Profix. On slabs with beams, provide for the positioning of metal connectors on the beams for the necessary structural collaboration
- Surfaces exposed to atmospheric agents must be protected, after application, with polyethylene sheets or anti-evaporation treatments. The latter must be sprayed on the restored surface as soon as the hardening phase begins (when restoring floors, provide anti-evaporation treatments only if no other protective or aesthetic-protective applications above are planned: contact our technical service for advice on the protection method of the most suitable surfaces and on the type of product that can be used as a curing compound). Provide a cover with wet TNT and waterproof sheet as soon as the surfaces are walkable and keep the surfaces covered for at least 24 hours.

APPLICATION METHODS

Brick trowel - Pour out - Finishing trowel - Spatula - Straight edge - Needle and vibrating straight edge

TOOL CLEANING

Water

KEY FEATURES

- ✘ Max. recommended thickness: 20 cm
- ✘ Min. recommended thickness: 20 mm
- ✘ Nonflammable
- ✘ Shelf-life: 12 months
- ✘ UV-resistant
- ✘ Maximum diameter of aggregate: 5 mm
- ✘ Mix with water: 11-13 %
- ✘ Pot-life: 60 min
- ✘ Temperature of use: +5 / +35 °C



TECHNICAL SPECIFICATIONS

EN 12190

Compressive strength after 1 day > **50 N/mm²**

EN 12190

Compressive strength after 28 days > **105 N/mm²**

EN 196-1

Flexural strength after 7 days > **13 N/mm²**

Breaking load longitudinal **4 N/mm²**

UNI EN 1015-6

Density **2270 kg/m³**

UNI EN 12390-8

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

EN 13412

Static elastic modulus **32000 N/mm²**

EN 12190

Compressive strength after 7 days > **90 N/mm²**

EN 196-1

Flexural strength at 1 day > **8 N/mm²**

EN 196-1

Flexural strength after 28 days > **14 N/mm²**

EN 14651

Measuring the flexural tensile strength (limit of proportionality, residual) fr3k (gap opening 2.5 mm) > **1 N/mm²**

UNI EN 13057

Capillary absorption **0.30 kg·h^{0.5}/m²**

UNI EN 1542

Bonding force > **2.5 N/mm²**

UNI EN 13892-3

Wear resistance **0.8 cm³/50cm²**

CONSUMPTION

Approximately 21 kilograms/square metre of Floor Q SFR per centimetre of thickness to be achieved (approximately 2100 kilograms per cubic metre).

STORAGE AND CONSERVATION

Store the product in its original packing, in a fresh and dry environment, avoiding frost and direct sunlight. Inadequate storage of the product may result in a loss of rheological performance. Protect from humidity.

PHOTO GALLERY



ADDITIONAL CONTENT



WARNINGS AND PRECAUTIONS

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.

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