



FS191

FLOOR SCREED (INSULATION)

PRODUCT DESCRIPTION

OPTIMIX FS FLOOR SCREED (INSULATION) is a high quality pre-mixed lightweight cement-based screed materials with thermal insulation property over concrete substrate. The screed is formulated to provide outstanding heat insulation properties with low drying shrinkage for replacing the traditional use of insulation boards and screed. The screed can also replace the traditional site-batched floor screed without the addition of liquid waterproofing admixture or latex emulsion.

TYPICAL USAGE

- Levelling screed of typical 10-50mm thickness for rough and uneven concrete floors.
- Screed for concrete floor slabs, car-park decks, kitchen, toilets, roof slabs, etc.
- Flat thermal insulation screed surface to receive common floor finishes such as ceramic tiles, homogeneous tiles, granite or marble tiles, etc.
- For internal and external applications.
- It is recommended to apply **OPTIMIX SF818 Self-Levelling (Underlayment)** or **SF828 Self-Levelling (Overlayment)** over **FS191** if a very smooth surface is required.

FEATURES AND BENEFITS

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|---------------------------------------|-----------------------------------|
| ● Consistent quality | ● Sound solid surface |
| ● Light weight / low density | ● Compatible with common finishes |
| ● Low shrinkage | ● Efficient application |
| ● Good thermal insulation performance | ● Environmentally friendly |



TECHNICAL DATA

Product Characteristics	OPTIMIX FS191
Compressive Strength at 28 days	7.0 MPa
Flexural Strength at 28 days	3.0 MPa
Bond to Concrete at 28 days	0.6 MPa
Workability (Flow)	200 mm
Thermal Conductivity	0.358 W/mK
Linear Shrinkage	< 0.1 %
Density (Hardened Mortar)	1230 kg/m ³
Typical Mixing Water	4.0 – 5.0 litres
Coverage*	0.9 kg/mm/m ²
Packaging	12.5 kg
Shelf Life	12 months

Note: The tests were performed according to the national standard or in-house modifications of the corresponding testing procedures.

** The coverage is highly dependent on the water usage*

TESTING METHODS

Flow and Density	BS 4551
Compressive and Flexural Strength	BS EN 1015
Pull-off Test	HKHA/MTS (2000), Part D 2.1.15
Linear Shrinkage	HKHA/MTS (2000), Part D 2.1.21
Thermal Conductivity	ISO8302, BS 874 - 2

Note: The tests were performed according to the national standard or in-house modifications of the corresponding testing procedure.

SURFACE PREPARATION

Substrate must be clean, free from unsound material, oil, grease and other contaminants. It is recommended to clean the substrate with high pressure water jet to remove dust and loose particles. It is highly recommended to treat the substrate surface with diluted **OPTIMIX SF80 Primer** to enhance the adhesion properties.

MIXING AND APPLICATION

4.0 – 5.0 L potable water is firstly poured into a bucket followed by the addition of one bag of **OPTIMIX FS191** dry powder. The mixture is then mechanical mixed with slow speed drill fitted with a suitable paddle for about 3 – 5 minutes or a lump-free homogenous state is achieved. The mixed mortar is then ready to use. The mortar should be spread and laid to position within the working life which is dependent upon ambient temperature and relative humidity. The surface can be finished with a wooden float or steel trowel where appropriate.

FINISHING

The levelness of the finished surface is largely dictated by the techniques of laying or application methods. The hardened screed should be cured with water spraying for initial several days or be treated with appropriate curing compound to improve the performance. **OPTIMIX FS191** does not crack by itself. However, minor surface defects, which pose no detrimental effect to the performance of flooring, may occur due to substrate movement or other external factors beyond our control.

HEALTH AND SAFETY

OPTIMIX FS191 is alkaline in nature and can cause irritations to persons with sensitive skin. Avoid inhalation of dust and contact with skin and eyes. Wear suitable protective gloves and masks while handling the product. If contact with eyes, rinse immediately with plenty of clean water and seek medical advice. This product is non-toxic and is not flammable.

STORAGE

Store the products in a cool and dry place with the original unopened bags on pallets with plastic wrapping. Protect from direct sunlight, rainfall and exposure to high humidity conditions. Avoid excessive stacking of pallets. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging and reduce shelf life.



Important Note: The information contained herein is, the best of our knowledge, true and reliable and is supported by the present state of our knowledge. No warranty is given or implied in connection with any recommendations or suggestions made by us or our representatives as the conditions of use and any labour involved are beyond our control.