

FS161

FLOOR SCREED (WATERPROOFING)

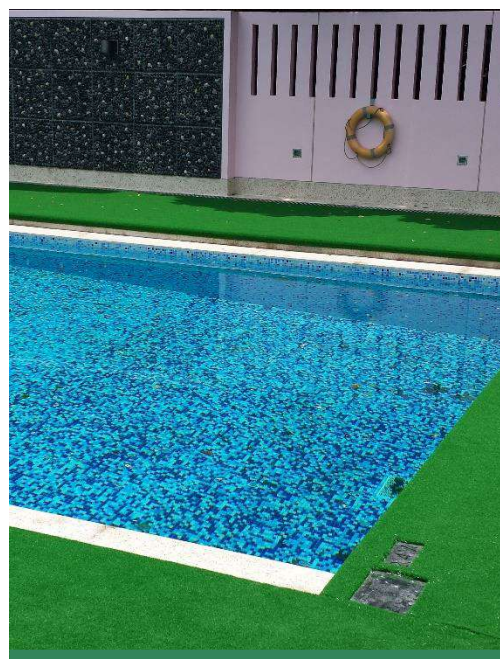
GENERAL PURPOSE SCREED WITH INTEGRAL WATERPROOFING

PRODUCT DESCRIPTION

OPTIMIX FS161 FLOOR SCREED (WATERPROOFING) is high quality pre-mixed cement-based screed materials with outstanding water resistance.

Designed for easy application onto a stable concrete substrate it is formulated with low shrinkage to minimize the formation of surface cracking and includes water repelling additives to form an effective integral water barrier.

Supplied as a single bag requiring only the addition of water it can replace traditional ready-mixed or site-batched floor screeds, improve consistency and avoid the need for dosing admixtures or latex emulsions on site.



TYPICAL USAGE

- 10-50mm thickness levelling for rough and uneven concrete floors.
- Screed for concrete floor slabs, car-park decks, kitchen, toilets, roof slabs, etc.
- 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** or **SF828** over **FS161** if a very smooth surface is required.

FEATURES AND BENEFITS

- Consistent Quality
- Sound Solid Surface
- Simple And Easy To Use
- Compatible With Common Finishes
- Low Shrinkage
- Outstanding Water Resistance
- Good Workability
- Environmentally Friendly

TECHNICAL DATA

Product Characteristics	OPTIMIX FS161
Compressive Strength at 28 days	> 25 MPa
Flexural Strength at 28 days	> 5.0 MPa
Bond to Concrete at 28 days	> 1.0 MPa
Initial Surface Water Absorption	~ 0.003 ml/m ² /s
Workability (Flow)	160 – 175 mm

Note: The above are typical laboratory test results and can vary slightly depending on the ambient and substrate conditions during application.

Environmental Data	
Volatile Organic Compounds (VOC)	≤ 10 g/L
Potential BEAM points	Product is manufactured within 800km of Hong Kong project sites
Packaging Composition	Paper bags incorporating 40% recycled paper

Packaging & Yield	
Wet Density	2,000 kg/m ³
Water Demand	4.5 – 5.5 L
Coverage	1.8 kg/mm/m ²
Packaging (per bag)	40 kg
Shelf Life	12 months

Note: The above are approximate figures and take no account of wastage of any kind.

Testing Methods	
Flow and Density	BS 4551
Compressive and Flexural Strength	BS EN 196 - 1
Pull-off Test	HKHA/MTS (2000), Part D 2.1.15
Initial Surface Water Absorption	BS 1881 : Part 208 : 1996
VOC Content	USEPA Method 24

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





INSTALLATION GUIDE

(Refer to Method Statement for more details)

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 pre-treat the substrate surface with diluted **OPTIMIX SF80** Primer. This will enhance the adhesion properties but more importantly will minimise pinholes and other surface blemishes caused by a porous, textured or variable substrate.

Apply primer liberally by brush to ensure complete penetration into the surface. Remove any excess primer while the primer is still wet. Allow the primed substrate become touch dry or tacky. Poor or highly porous substrates may benefit from a second coat applied wet-on-dry.

MIXING

Mix one bag of **OPTIMIX FS161** dry powder with 4.5 – 5.5 L of potable water. Mechanical mixing with a slow speed drill and paddle is recommended. Mix the material for about 5 minutes or until a lump-free homogeneous mix is achieved. Allow the mixture to stand for 5 minute, mix briefly again and the material is ready for use.

APPLICATION

The mortar should be laid to position within the working life of the mixture. This is dependent upon many factors including water addition, water temperature, mixing method, surface condition, ambient temperature, relative humidity, sunlight and drafts. 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.

LIMITATIONS

Properly installed **OPTIMIX FS161** bonds strongly to the substrate to form a rigid monolithic construction. As such it will reflect any movement in the underlying substrate. Joints in the underlying concrete should be followed through in the screed and appropriate waterproofing detail employed. Equally, any movement or live cracking in the substrate may be reflected in the surface of the screed. So for waterproofing in critical areas additional waterproofing detail may be required.

HEALTH AND SAFETY

OPTIMIX FS161 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.



ALTERNATIVE PRODUCTS

Other similar products from the Optimix range include:

- **F50** Easy Screed
- **FS151** Floor Screed
- **FS191** Floor Screed (Insulation)
- **FS192** Floor Screed (Lightweight)



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.