

SF818

SELF-LEVELLING SCREED

CEMENTITIOUS SMOOTHING SCREED FOR USE IN
TOPPING AND UNDERLAYMENT APPLICATIONS

PRODUCT DESCRIPTION

OPTIMIX SF818 SELF-LEVELLING SCREED

is specially designed to be easy to mix and apply with a flowable consistency that achieves a smooth surface to receive rigid or flexible tiles, sheet finishes, paint or other similar finishes.

It is a proprietary pre-blended cementitious self levelling screed comprising cements, aggregates, modified polymers and additives, to BS EN 13813 and is suitable for foot traffic without floor finishes or with selected finishes.

Formulated with low shrinkage to reduce cracking, it can be poured or pumped in thicknesses from 3mm to 20mm in one operation.



TYPICAL USAGE

- New-build and renovation projects
- Domestic and commercial floors to receive wooden, vinyl, epoxy-resin flooring, ceramic tiles or carpet floor finishes
- Suitable for domestic floor without floor finish
- Can be used in apartment units, shopping malls, offices, hotels and schools
- Free from casein and ammonia additives thus is also suitable for hygiene critical areas such as hospitals, kitchens etc.

FEATURES AND BENEFITS

- Good Workability
- Strong Solid Dustless Surface
- Extremely Flat and Smooth Finish
- Low Shrinkage
- Hand or Machine installation
- Simple and Easy To Use
- Consistent Quality
- Efficient Application

TECHNICAL DATA

Product Characteristics	OPTIMIX SF818
Compressive Strength at 28 days (MPa)	≥ 30
Flexural Strength at 28 days (MPa)	≥ 7
Bond Strength at 28 days (MPa)	≥ 1.5
Linear Shrinkage at 28 days (%)	≤ 0.1
Workability (Flow)	≥ 130 mm
Self-Healing Time	> 20 minutes

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 (kg/m ³)	2,050
Water Demand	5.0 – 5.5 L
Coverage (kg/mm/m ²)	1.7
Packaging (per bag)	25 kg
Shelf Life	6 months

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



Testing Methods	
Compressive and Flexural Strength Test	BS EN13892-2
Linear Shrinkage	HKHA/MTS (2020 / 2022), Part D 2.1.21
Bond Strength	HKHA/MTS (2022 / 2024), Part D 2.1.15 / BS EN13892-8
Flow	BS EN 12706
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

OPTIMIX SF818 is suitable for installation over any normal cementitious substrates such as concretes and screeds. The underlying substrate must be strong, clean, free from unsound material, oil, grease and other contaminants.

Clean the substrate by brushing and/or spraying with water to remove dust and loose particles then allow to become surface dry before continuing.

It is highly recommended to pre-treat the substrate surface with a 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.

Use either **OPTIMIX SF80** Primer or **OPTIMIX PROCRETE** both diluted 1:3 with water. Apply the diluted 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 to become touch dry or tacky. Poor, highly porous or uncertain substrates may benefit from a second coat applied wet-on-dry.

MIXING

For hand or batch mixing mix each 25kg bag of **OPTIMIX SF818** dry powder with 5.0 – 5.5 L potable water. Mechanical mixing with a typical low speed hand drill (~600RPM) fitted with a suitable paddle is recommended.

Mix the material for about 3 - 4 minutes or until a lump-free homogeneous mix is achieved. Allow the mixture to stand for about 1 minute, mix briefly again and the material is ready for use.

The mixed material should be used as soon as possible after mixing to ensure the installation, levelling, air bubble removal and blemish treatment can be completed within the self-healing time.

As a general rule Optimix recommend the mixed material is poured out of the mixing vessel within 5 to 10 minutes of completion of mixing.

APPLICATION

The mortar should be laid to position within the working life and self-healing time 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.

It is suggested to use a rubber scraper or pin leveler to achieve an even application and to level and combine adjacent wet applications (live edge). In most circumstances optimum effective layer thickness is around 5mm to 8mm. A spiked-roller can then be used to remove the trapped air bubbles and any surface contaminations such as insects can be removed at the same time. These operations should be completed as soon as possible and within working life of the mortar.

For the best results the **OPTIMIX SF818** should be handled as little as possible to achieve smooth and continuous installation. We recommend all applications be done by our skilled approved applicators.

FINISHING

The finished surface should be flat and smooth, and its levelness is largely dictated by the contour of the substrate. Minor surface defects, which pose no detrimental effect to the performance of flooring, may occur due to substrate contours and texture, substrate movement, uneven drying or other external factors beyond our control.

HEALTH AND SAFETY

OPTIMIX SF818 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 products from the Optimix range include:

- **SF828** Self-Levelling Screed (Overlayment)
- **SF838** Self-Levelling Screed (Colour)
- **SF868** Self-Levelling Screed (Exterior)
- **SF878** Self-Levelling Screed (Heavy Duty)



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.



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