



Technical Data Sheet

Sure Flex SF4004

Description and Classification

Sure Flex 4004 is a flexible set, quality cement based adhesive that meets and exceeds the requirements of Australian Standard AS 4992.1. Sure Flex 4004 is classified as a Normal Setting Flexible High Performance (C2) adhesive with Slip Resistance (T) and Extended Open Time (E). This category meets and exceeds the requirements for the following properties.

Characteristics	Compressive Strength	Test Method
Tensile Adhesion Strength	≥ 1.0 N/mm ²	Refer all to AS 4992.2 (INT)
Tensile Adhesion Strength after water immersion	≥ 1.0 N/mm ²	
Tensile Adhesion Strength after heat aging	≥ 1.0 N/mm ²	
Tensile Adhesion Strength after freeze thaw cycle	≥ 1.0 N/mm ²	
Open Time Tensile Strength	≥ 0.5 N/mm ² after not less than 30 minutes	
Slip	≥ 0.5 mm	

Where to Use

Sure Flex 4004 is suitable for interior or exterior bonding of most types of ceramic wall and floor tiles including monocottura, slate, quarry tiles, terracotta and natural stone bonded to concrete, cementitious screeds, brick work, block work and where the surfaces are rigid and may or may not exhibit some surface texture and porosity. Sure Flex 4004 is suitable for bonding tiles to cement sheet or similar wall systems and where heavy stresses may be encountered, such as underfloor heating installations. Sure Flex 4004 is suitable for thick or thin bed tile installation.

Characteristics

Sure Flex 4004 is an off white or grey powder composed of graded silica sand cement and synthetic resins and property enhancing additives. When mixed with water the following features are obtained.

- Single component flexible adhesive
- Easily workable
- Non slip characteristics
- Bonding of a range of common tile types and substrates
- Low shrinkage
- Open time approximately 30 minutes
- Pot life approximately 6 hours

Recommendations

Sure Flex 4004 should **not** be used where:-

- The substrate is subject to movement
- On metals that will rust or oxidise or oily timber or green timber.
- Tiling contractors should follow the Australian Standard guidelines for the installation of neoprene growth joints at the required spacing set down by the Australian Standard.

Substrate Preparation

The substrate must be sound, clean, free from loose coatings, grease, oil or wax and water free, as a damp or wet substrate will affect the set time on bond or both. Cement or concrete substrates must be well cured and at least 28 days old prior to tiles being laid to ensure that differential shrinkage does not occur between the adhesive and the substrate. Very porous substrates like cement sand screeds or renders should be primed with Sure Prime 307. Surfaces exposed to sunlight should be dampened with water to cool if hot prior to tiling.



Mixing the Adhesive

Mix the Sure Flex 4004 with a mechanical stirrer by adding Sure Flex 4004 to the mixing water until a smooth lump free paste is obtained. Leave to rest and mature for 3-5 minutes and re-stir. Use 6.9 - 7.4 litres of water to each 20kg bag of Sure Flex 4004 powder to obtain the required consistency. Mixed this way the pot life is approximately 6 hours. If the adhesive has stiffened past a usable consistency it should not be used and discarded.

Application

Sure Flex 4004 is applied to the substrate using a notched trowel. To achieve optimum results spread a layer of Sure Flex 4004 on the substrate with the flat side of the trowel then immediately after apply the desired thickness using a suitable and appropriate notch trowel with correct depth of notch for the type and size of tile being laid. For complete coverage of the tile, it is recommended that a layer of adhesive be applied to the back of the tile with the flat side of the trowel.

Installing Tiles

Clean tiles should be fitted under a firm pressure to ensure good coverage and contact by the adhesive. Tiles should not be laid over areas of adhesive that has "skinned over" on the surface. Areas that have skinned over should only be refreshed by reworking with a notched trowel. Re-wetting of the surface of the adhesive will degrade the bond and is not recommended.

Newly tiled areas must be protected from rain, frost and water for at least 36 to 48 hours.

Grouting

Floor joints may be grouted after 24 hours, wall joints after 6 - 8 hours.

Traffic

Light foot traffic can be accepted after 24 hours at median temperatures. Cold temperatures of 8 - 10 degrees will require 48 hours before exposure to any heavy traffic.

Coverage

Coverage will depend on the substrate conditions and applicators technique. As a guide the use of a 6mm notched trowel for walls and a 10mm notched trowel for floors will provide approximately 14m² and 9m² respectively for 20 kg of Sure Flex 4004.

Cleaning

Tools and surfaces should be cleaned with water or a damp cloth before the adhesive sets.

Storage

Sure Flex 4004 can be stored 12 months in the original packaging in a normal indoor environment.

Health & Safety

Sure Flex 4004 contains cement and silica sand. Both of these components are now classified as hazardous according to the criteria of Worksafe Australia. Continuous or extended contact with this product may cause irritation as well as respiratory issues such as bronchitis or silicosis.

Use a dust mask and goggles when mixing the powder and gloves when using the adhesive. For further information consult the safety data sheet.

Warning

The technical and use details and recommendations in this data sheet are to the best of our current knowledge and experience, and must in every case be taken as merely indicative and are to be confirmed beforehand by the consumer for the intended application.

The user alone shall be fully responsible for the consequence of any misuse. If the intended use is in doubt, consult Sure Level Pty Ltd.

Guarantee

Sure Flex 4004 is guaranteed by the manufacturer for a period of 7 years provided the application is in accordance with the manufacturers direction as per data sheet and the Australian Standards for tiling practice. The product use is beyond the manufacturers control and liability is restricted to the replacement material if proven defective. Sure Level Pty Ltd is not responsible for loss or damage for the incorrect use of the material

Fire

Sure Flex 4004 is non flammable.

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