ProFlex S2 ES

Standard Set

Flexible Tile Adhesive

20kg

25 YEAR GUARANTEE

Product Selection Guide

Key areas of use:	Suitable tiles:	Suitable surfaces & substrates:
✓ General wall & floor installations	✓ Ceramic	✓ Green Screeds
✓ Interior/ Exterior installations	✓ Porcelain	✓ Concrete
✓ Wet Rooms	✓ Glass	✓ Sand/Cement Screed
✓ Communal Showers	✓ Mosaics	✓ Tile Backer Boards
✓ Swimming Pools	✓ Marble**	✓ Cement Faced Fibre Boards
✓ Electric Matting Underfloor heating	✓ Travertine**	✓ Anhydrite/calcium sulphate/gypsum based screeds
✓ Piped Water Underfloor heating	✓ Granite	✓ Tile on Tile*
✓ Conservatories	✓ Limestone**	✓ Firm & Stable Plaster
✓ Foil Faced Underfloor Heating Systems	✓ Terracotta	✓ Plasterboard
	✓ Quarry	✓ Sand/Cement Render
	✓ Slate	✓ Concrete Brick/Block
	✓ Brick Slips	✓ Hard Vinyl Tiles
		✓ Flooring Grade Asphalt

** Please refer to **NB on page 2

* Existing ceramic, porcelain known as "Tile on Tile"

ULTRA TILE®

ADHESIVES • GROUTS & SILICONES • TILING ANCILLARIES • LEVELLING COMPOUNDS

TECHNICAL DATASHEET

UltraTile ProFlex S2 ES is a single part, standard setting, flexible, fibre reinforced adhesive for wall and floor tiles. It is specially formulated with enhanced adhesion and flexibility, making it ideal for areas where slight movement or vibration can occur. Classified as S2 in accordance with EN12004 it has the highest level of deformation for exceptional tolerance to movement. **UltraTile ProFlex S2 ES** has a unique blend of polymers giving it superior bonding and slip resistance performance in combination with an extended range tile types in wet or dry conditions. Ideal for interior & exterior applications. It is able to take light foot traffic within 18 hours of installation depending upon temperature and substrate.

****NB:** Porous natural stone tiles need to be checked for compatibility to avoid staining.

SURFACE PREPARATION

All wall & floor substrates must be clean, dry, firm and stable, free of dust, dirt, oil and grease. Substrates should be strong enough to support the weight of the adhesive and tiles being fixed (see chart below for loadings).

For plaster board and plaster finishes that have been painted and are showing a weak or flaky surface finish then mechanical sanders or hand sanding blocks are generally used to remove the film. However for the likes of floor screed surface contamination, adhesive residues and weak surface laitance or even smooth dense floors such as power floated concrete, these will require a more heavy duty scarifying using specialist flooring equipment to remove the surface of the substrate to ensure the substrate is sound, stable and has a rough open texture. To encourage best adhesion to the substrate it is advisable that prior to applying adhesive that substrates are primed (please see priming section below).

Remember - sanding or mechanical abrasion of any surface will leave powder deposits which require thorough removal by suitable vacuum equipment to provide a clean dust free surface. Failing to remove fine powder deposits and weak surfaces is a common reason for de-bonding of tile adhesive and primer from the substrate. Using a wet sponge to clean down a wall or floor of dust deposits only serves to spread it around, it is therefore advisable to vacuum thoroughly prior to use of wet sponge.

Green Screeds: It is essential that the screed is left to set hard and be able to take foot traffic, this is usually at least 2-3 days after application depending on temperature and humidity conditions. (Screeds are commonly 3:1 or 4:1 sand/cement and typically upto 50mm thick).

Concrete should be at least 7 days old prior to commencement of tiling.

Please ensure there are sufficient movement joints throughout the screed/concrete before applying adhesive. The tiling surface should also incorporate movement joints.

Priming is not required for either substrate.

Tile on Tile: It is always preferable to remove existing tiles however fixing new to old is an accepted method as long as the existing tiles are sound, stable, dry, securely bonded and fixed to a background that is capable of taking the additional weight. Ceramic, porcelain and quarry tiles should be lightly abraded to form a mechanical key degreased and ensured thoroughly clean. For existing vinyl floor tiles only hard and “crunchy” vinyl tiles be considered to be over-tiled. Be aware some old tiles of this type contained asbestos so should not be abraded. Do not ove-tile onto softer vinyl, quartz or composite tiles.

Calcium Sulphate Floor Screeds: It is essential that the floor is fully dry, if in doubt always check the moisture level of the floor is below 75%RH using a hair hygrometer before continuing. This type of floor can also suffer from surface laitance issues creating a weak surface layer and therefore they are highly likely to require specialist mechanical abrasion as indicated above.

Timber/Wooden Floors: All chipboard and T&G flooring should be over-boarded using exterior or class 3 type plywood boards or cement backer boards of suitable thickness to remove any deflection. All over-boarding should be dry and conditioned to the environment in which they are to be used. Plywood over-boards should have backs and edges sealed to prevent ingress of moisture and atmospheric humidity. A neat coat of UltraTile ProPrimer should be used to carry out the sealing process prior to installing the boards. The plywood boards should then be positioned, close butted and firmly screwed (not nailed) through the underlying flooring to joists ensuring a max distance between fixings of 300mm centres or less. Plywood and other wood-based sheets or boards should not be used for direct tiling. For tiling onto plywood and other wood-based sheets or boards, an intermediate layer, such as an uncoupling membrane, reinforced tanking system or tile backer board should be used. If using cement backer board to over-board the timber/wood floor, then it should be of flooring grade and of suitable strength for the application to prevent deflection. It should be 6mm minimum thickness. The backer board should be bonded using a minimum classification of S1 type tile adhesive and the original wooden floor should be thoroughly cleaned and free of any surface coating or wood treatment. It should also be primed using a neat coat of UltraTile ProPrimer.

Underfloor Heating (UFH): If UFH is being installed it must be fully commissioned before starting the tiling process to ensure it is in full working order. This includes both electric mat and water pipe systems.

Once the UFH has been commissioned it can be set to a low level to provide a max floor temperature of 15°C whilst the tiling and grouting processes are undertaken. It is critical that this temperature is not exceeded as this can force dry the adhesive & grout with the potential of causing cracks in the installation or tiles to de-bond. Maintain this temperature for a minimum period of 7 days while the installation cures and hardens. After this time the UFH can be brought up to the required room temperature slowly at a rate of 5°C per day.

Render: When tiling to new render it must be ensured that the render is a minimum of 4 weeks old and is thoroughly strong, dry, dust and efflorescence free and stable.

PRIMING

UltraTile ProPrimer has been specifically developed to be used as a primer for use with cementitious tile adhesives to provide improved sealing and bonding properties for a variety of substrates.

For Porous Substrates: Prime with 2 coats of **UltraTile ProPrimer**. The first coat should be diluted 1pt primer to 3 pts clean water (by volume) and allowed to dry for minimum period of 1 hour. When dry apply a second coat diluted 1pt:1pt (by volume) and leave for 1 hour to dry before continuing the tiling process Includes: Plaster, Skimmed Plasterboard, Plasterboard, Sand/Cement, Calcium Sulphate Screeds, Cement Backer Boards, Render and other open textured substrates.

For Non-Porous & Low Porous Substrates: We recommend **UltraTile ProPrimer** in a single, neat application.

Includes: Cured Epoxy DPMs. Tile on Tile applications, Foil Faced Insulation Boards, Plywood Floor Overboarding, Plywood Walls.

NB: Please see technical data sheet for **UltraTile ProPrimer** for coverage rate details. If in doubt as to the need for priming please consult UltraTile Technical Department.

MIXING

Once the substrate has been prepared, continue with the tiling installation. **UltraTile ProFlex S2 ES** should be added slowly to clean water in a suitable clean mixing tub and mixed thoroughly using a drill/mixer and paddle to give a slump free, easily worked mortar consistency. Once mixed the mortar is immediately ready for use and has a pot life of approximately 120 minutes at 20˚C. Mix only sufficient material to be used within the pot life of the product. Do not remix or re-wet/dilute product which has aged and is starting to thicken or set.

Mixing Ratio: 20kg unit requires 5.0L of water.

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TECHNICAL DATASHEET

APPLICATION

Apply the adhesive to the required thickness (limits 3mm – 20mm) in areas up to 1m^2 at a time. For internal walls use a notched trowel to the following notch dimensions to provide solid rib lines:

Mosaic tiles: 3mm x 3mm at 6mm centres

General wall tiles: 5mm x 5mm at 10mm centres

General floor tiles: 8mm x 8mm at 16 mm centres

For floors & external applications we advise to use the solid bed method. This involves applying a uniform bed of adhesive to the floor and "buttering" the back of the tile with the same adhesive. When the tiles are bedded with a twisting action, pressing firmly down it ensures 100% contact is made with both the floor and the tile.

When fitting tiles leave spaces between each the tiles to allow for grouting (approx: Walls 1mm-3mm & Floors 2mm-12mm).

Before the tile adhesive sets clean off the excess adhesive from the face of the tile and grout joints with a clean damp cloth or sponge.

WALL TILING & LOADINGS

Wall types vary considerably but all have the same basic need to be structurally sound, strong, smooth and level. It is essential that the wall to be tiled has sufficient inherent strength to hold the proposed tile and the adhesive being used. The following chart lists maximum national standard loadings for a variety of wall substrates:

LOADINGS	
Gypsum plaster	20kg/m^2
Skimmed plasterboard (gypsum)	32kg/m^2
Gypsum fibre boards	40kg/m^2
Cement tile backer boards	40kg/m^2
Glass reinforced cement sheets	50kg/m^2

CLEANING

Tools should be thoroughly cleaned with water to remove excess material immediately after use and before adhesive sets.

GROUTING

Leave the installed tiles for a minimum period for at least 18 hours to set hard before grouting and/or walking on the tile. This time may be extended on impervious/non-porous substrates. It is also dependent on temperatures and conditions. Always check and ensure that adhesive has set hard before grouting. UltraTile ProGrout Smooth and ProGrout Flexible are available for use in a variety of colours.

TECHNICAL DATA	
Unit Size:	20kg Bags
Colours:	White
Classification:	EN12004 Class C2 TE S2
Bed Thickness:	3mm – 20mm
Grout After*:	18 hours
Coverage:	4.5kg / m^2 at 3mm Bed Thickness
Pot Life*:	120 Minutes at 20°C
Set Time*:	16 Hours at 20°C
Application Temperatures:	5°C to 25°C

*Depending on temperatures, substrate and site conditions.

POINTS OF NOTE

The curing period for cement based tile adhesives will be affected by extremes in temperature. High temperature site conditions will increase the speed of cure therefore reducing the pot life and set times. Low temperatures will reduce the speed of cure extending the pot life and set times. It is therefore good practice to consider site conditions and storage of materials as essential factors in planning tiling installations.

All UltraTile adhesives are manufactured to meet the performance requirements of BS EN 12004 and the relevant classifications.

UltraTile would always advise that tiling installers follow the guidelines for tiling as laid down in BS EN5385. It is essential that expansion joints are built into the design of the tiling installation in order to prevent tension build up. This is a common occurrence which can result in tiles de-bonding.

Please note that this product uses natural aggregates and other materials that may marginally vary in colour. This does not affect the consistency or characteristics of the product.

STORAGE

This product must be stored in unopened bags, clear of the ground in dry conditions. Ideal storage temperatures are between 5°C and 25°C. If stored correctly and used within 12 months of the date shown on the bag, the activity of the reducing agent will be maintained and this product will contain no more than 0.0002% (2ppm) of the total dry weight of the cement.

SHELF LIFE

Under the above storage conditions this product has a shelf life of 12months. Please note that the use of this product after the end of the declared storage period may increase the risk of allergic reaction.

HEALTH & SAFETY

Please ensure that appropriate PPE is used when preparing, mixing and applying products. Always wash hands before consuming food and make sure that materials are kept safely out of reach of children and animals. Please dispose of packaging and waste appropriately. A full Material Safety Data Sheet relating to this product is available from ultratileadhesives.co.uk

QUALITY ASSURANCE

All products are manufactured in a plant whose quality management system is certified / registered as being in conformity with BS EN ISO 9001, ISO 14001 and ISO 45001. UltraTile products are guaranteed against defective materials and manufacture and will be replaced or money refunded if the goods do not comply with our promotional literature. We cannot however accept responsibility arising from the application or use of our products because we have no direct or continuous control over where and how our products are used. All UltraTile products are sold subject to our terms and conditions of sales, copies of which may be obtained upon request.

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