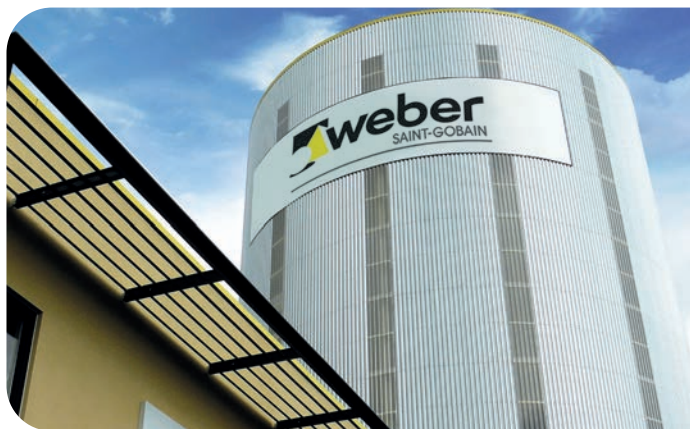




Weber Tile Fixing Solutions



About Weber



As a recognised manufacturer and innovator of easy-to-apply products in the tile-fixing, technical mortars, façades and flooring systems markets, Weber is a leading player in the construction products industry. The natural synergy between these specialist activities enables Weber to provide integrated solutions for a wide range of projects from building renovation and refurbishment to new building developments and major civil engineering.

Weber does not sell only products but the complete solution, which includes the services that go with the products; technical support and training. Based on strong knowledge and experience in the market, the Weber training programmes meet the needs of its customers. Weber provides specifiers, developers and contractors across the board with substantial technical support, both before, during and after contract periods.

About Saint-Gobain

Weber is part of Saint-Gobain, one of the world's leading industrial groups with activities in construction products, flat glass and packaging, high performance materials and building distribution. Saint-Gobain is an international group employing over 180,000 people in more than 68 countries worldwide. Established in France in 1665, Saint-Gobain is one of the world's largest industrial groups, with an annual turnover of €41.8 billion.

Some of the UK and Ireland's most respected companies and brands in the construction sector are part of Saint-Gobain, including British Gypsum, Glassolutions, Isover, PAM, Artex, Ecophon and Pasquill. Together, these businesses offer an unrivalled range of products and innovative material solutions that give architects and designers the ability to respond to the latest trends, whilst meeting the most exacting performance and legislative standards.

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Products

Innovative, easy-to-use, high performance floor and wall tile adhesives, grouts, sealants and preparatory products for the professional tile fixer. Our product range is divided into four sections offering the complete tile fixing solution.

Prepit

Levellers, Primer & Tanking System

Preparation before applying tiles is essential to ensure an even surface, optimal bond and durability.



weber PR360

Styrene acrylate primer
See page 20



weberfloor flex



Award winning, fibre-modified, self-smoothing levelling compound with Low Dust Technology™
See page 20



weberfloor level

Ultra smooth levelling compound with Low Dust Technology™
See page 21



webersys protect

Ready-mixed, under-tile tanking system
See page 21

Fixit

Ready-mixed adhesives

Ideal for internal projects for tiling onto walls. Our range includes products with greater resistance to moisture, stronger bonds, and extra flexibility.



weberfix pro lite



Award winning, premium, flexible, lightweight and brilliant white wall tile adhesive
See page 22



weberfix WR

High-performance, water resistant wall tile adhesive with extended open time
See page 22



weberfix plus

Water resistant wall tile adhesive with extended open time
See page 23



weberfix

Wall tile adhesive
See page 23

Products

Setit

Cement-based adhesives

Suitable for walls and floors, both internally and externally. Choose between cement-based tile adhesives which are flexible, extra strong, rapid-setting or a mixture of all three.



weber setit pro lite - rapid



Ultra flexible, lightweight and rapid set floor tile adhesive with Low Dust Technology™

See page 24



weber setit rapid SPF



Flexible, rapid set, wall and floor tile adhesive with Low Dust Technology™

See page 24



weber setit rapid plus ECO



Rapid set wall and floor tile adhesive for low porosity tiles

See page 25



weber setit SPF



Flexible, standard set, wall and floor tile adhesive

See page 25



weber setit plus



Standard set wall and floor tile adhesive for low porosity tiles

See page 26



weber setit thick bed



Standard set, low slump, thick bed wall and floor tile adhesive

See page 26



weber AD250

Performance enhancing admixture

See page 27

Jointit

Grouts & Silicones

Our product range includes mould-resistant tile grouts and silicone sealant in a wide choice of colours.



weber jointit premium



Premium, flexible, water repellent wall and floor tile grout with PURE CLEAN anti-stain technology suitable for interior and exterior projects (1-20mm joints)

See page 28



weber jointit wide flex

Flexible wall and floor tile grout suitable for wide joints on interior and exterior projects (2-20mm joints)

See page 28



weber jointit wide

Wide joint wall and floor tile grout suitable for interior and exterior projects (2-20mm joints)

See page 29



weber jointit wall

Fine wall tile grout suitable for interior and exterior projects (1-3mm joints)

See page 29



weber jointit silicone

Premium silicone sealant available in 18 colours including clear

See page 29

Adhesive Selector

Products

Ready-mixed			
weberfix pro like	weberfix WR	weberfix plus	weberfix

Interior Walls				
Brickwork & Dense Blockwork	✓	✓	✓	✓
Blockwork (Lightweight)	✓	✓	✓	✓
Cement/Sand Render	✓	✓	✓	✓
Cement & Fibre-Mesh Boards	✓	✓	✓	✓
Concrete	✓	✓	✓	✓
Existing Ceramic Tiles	✓	✓	✓	✓
Painted Surfaces (Not Emulsion)	✓	✓	X	X
Plaster on Solid Wall	✓	✓	✓	✓
Plaster & Plasterboard	✓	✓	✓	✓

Interior Floors				
Anhydrite (Calcium Sulphate) Screed	X	X	X	X
Cement/Sand Screed	X	X	X	X
Cement/Sand Screed (Green)	X	X	X	X
Concrete (Power Floated)	X	X	X	X
Existing Ceramic Tiles	X	X	X	X
Existing Resin Agglomerated Tiles	X	X	X	X
GRP (Glass Fibre)	X	X	X	X
Steel	X	X	X	X
Wood - Non T+G Floorboards & Chipboard	X	X	X	X
Wood - T+G Floorboards & Chipboard	X	X	X	X
Wood - Floating T+G Chipboard	X	X	X	X
Wood - 18mm WBP Plywood	X	X	X	X
Wood - Overboarded with WBP Plywood	X	X	X	X
Wood - Under-tile Warming over 18mm WBP Plywood	X	X	X	X
Under-tile Warming or Heating with a Solid Floor	X	X	X	X

Exterior Walls				
Brickwork	X	X	X	X
Cement/Sand Render & Concrete	X	X	X	X
Existing Ceramic Tiles	X	X	X	X
Timber, MDF, Plywood	X	X	X	X

Exterior Floors				
Cement/Sand Screed	X	X	X	X
Cement/Sand Screed (Green)	X	X	X	X
Concrete	X	X	X	X
Existing Ceramic Tiles	X	X	X	X

✓ Ceramic Tiles Only

Cement-based						Two-part	
weberbet pro like - rapid	weberbet rapid SpF	weberbet rapid plus ECO	weberbet SpF	weberbet plus	weberbet thick bed	weberbet plus & weber AD250	weberbet rapid plus ECO & weber AD250
X	✓	✓	✓	✓	✓	✓	✓
X	✓	✓	✓	✓	✓	✓	✓
X	✓	✓	✓	✓	✓	✓	✓
X	✓	✓	✓	✓	✓	✓	✓
X	✓	✓	✓	✓	✓	✓	✓
X	✓	✓	✓	✓	✓	✓	✓
X	✓	✓	✓	✓	✓	✓	✓
X	✓	✓	✓	✓	✓	✓	✓

✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓
✓	X	X	X	X	X	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓
X	X	X	X	X	X	✓	X
✓	X	X	X	X	X	✓	✓
X	X	X	X	X	X	X	X
✓	X	X	X	X	X	✓	✓
✓	✓	X	✓	X	✓	✓	✓
✓	✓	X	✓	X	✓	✓	✓
✓	✓	X	✓	X	✓	✓	✓


X	✓	✓	✓	✓	✓	✓	✓
X	✓	✓	✓	✓	✓	✓	✓
X	✓	✓	✓	✓	✓	✓	✓
X	X	X	X	X	✓	X	X

✓	✓	✓	✓	✓	✓	✓	✓
✓	X	X	X	X	X	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓

✓ Ceramic, Porcelain & Natural Stone X Do Not Use

Grout Selector


Products

	Fine texture		Traditional texture	
	weberjoint premium	weberjoint wall	weberjoint wide	weberjoint wide flex
Maximum Joint Width	20mm	3mm	20mm	20mm
Areas				
Wall	✓	✓	✓	✓
Floor	✓	X	✓	✓
Interior & exterior	✓	✓	✓	✓
Solid substrates	✓	✓	✓	✓
Wooden/heated substrates	✓	X	X	✓
Soft faced tile/stone	✓	✓	X	X
Features				
Mould Stop Technology	✓	✓	✓	✓
PURE CLEAN anti-stain technology	✓	X	X	X
 Weber Rewards points	200 points	X	X	X

Ok Do Not Use

Levelling Selector

Products

	weberfloor flex	weberfloor level
	Maximum Depth	50mm
Areas		
Interior	✓	✓
Exterior	X	X
Wearing Surface	X	X
Solid Substrates	✓	✓
Flexible/Heated Substrates	✓	X
Features		
Low Dust Technology™	✓	X
 Weber Rewards points	275 points	X

Ok - Prime with **weber PR360** Do Not Use

Grout Colour Selector

Products

	weberjoint premium	weberjoint wall	weberjoint wide	weberjoint wide flex	weberjoint silicone
	Size	5kg	5kg 10kg & 12.5kg	5kg 10kg 20kg	5kg & 10kg
Maximum Joint Width	20mm	3mm	20mm	20mm	
White	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
Ice Grey	■				■
Platinum	■				■
Grey	■			■	■
Silver Grey	■		■	■	■
Misty Grey	■				■
Storm Grey	■				■
Slate	■				■
Charcoal	■		■		■
Black	■				■
Ivory	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>
Jasmine	<input type="checkbox"/>				<input type="checkbox"/>
Limestone	■				■
Sandstone	■				■
Beige	■				■
Natural	■				■
Dark Sand	■				■
Brown	■				■

Matching silicones are available. Colours are representative.

Floor Tiles

Good, Better, Best...

Background	Preparation	Good	Better	Best
Sand and cement screed	Should be a minimum of 3 weeks old, mix should be 1 part cement to 3 or 4 parts sand, surface should be flat to an SRI standard i.e. varies no more than 3mm over 2 metres	weber set rapid plus ECO	weber set rapid SPF	weber set pro lite - rapid
Concrete	Should be a minimum of 6 weeks old, to a standard of SRI with normal absorption rates, i.e. water poured onto the surface would soak in within a minute	weber set rapid plus ECO	weber set rapid SPF	weber set pro lite - rapid
Asphalt	Must be flooring grade and primed with weber PR360 at 5 parts primer to 1 part water	N/A	N/A	weber set pro lite - rapid
Anhydrite screed	Floor must be sufficiently dry 0.5% moisture content or 75% Relative Humidity, sanded with 60 to 65 grade sandpaper, vacuumed and primed with weber PR360 3 parts water to 1 part primer	weber set rapid plus ECO	weber set rapid SPF	weber set pro lite - rapid
Tile on tile	Tiles must be well bonded and clean	weber set rapid plus ECO	weber set rapid SPF	weber set pro lite - rapid
Tongue and Groove floorboards	No deflection, screwed down at 300mm centres, prime with weber PR360 at 1:1	N/A	N/A	weber set pro lite - rapid
Over boarded floors	Minimum 15mm WBP Plywood screwed down at 300mm centres. Prime the back and any exposed edges of the board	weber set thick bed	weber set rapid SPF	weber set pro lite - rapid
Floating floors	Insulation has sufficient strength to support the load, covered with either 15mm plywood or 25mm of weberfloor flex incorporating floor mesh	N/A	weber set rapid SPF	weber set pro lite - rapid
Vinyl tiles	Well stuck down, clean, primed with weber PR360 at 1:1	N/A	weber set rapid SPF	weber set pro lite - rapid
Tile backer boards onto wood	3-6mm bed of flexible adhesive, screw boards down before adhesive has set at 300mm centres	weber set thick bed	weber set rapid SPF	weber set pro lite - rapid
Heated screeds	Allow to dry for 3 weeks, screed normally to clear heating pipes by 65mm, turn heating up to operating temperature at 5 degrees a day and run at operating temperature for 3 days, turn off and allow to cool to room temperature	N/A	weber set rapid SPF	weber set pro lite - rapid
Under-tile heating covered with levelling compound	Fitted and tested as per manufacturer's instructions, wires to have at least 3mm coverage of weberfloor flex	N/A	weber set rapid SPF	weber set pro lite - rapid
Under-tile heating tile direct	Fitted and tested as per manufacturer's instructions, buttering of tiles may be required	N/A	weber set rapid SPF	weber set pro lite - rapid
Under-tile heating onto wood	Either overboard or cover the floor with 10mm of weberfloor flex	N/A	weber set rapid SPF	weber set pro lite - rapid
Uncoupling membrane	Stuck down with a 3-4mm notched trowel with weber set rapid SPF	weber set thick bed	weber set rapid SPF	weber set pro lite - rapid
Steel (not stainless)	Prime with weberfloor DPM , fully blinded (100%) coverage with dry silica sand/quartz grade 1-2mm (zone 2 sand no dust). When dry prime with 2 coats of weber PR360	N/A	N/A	weber set pro lite - rapid



General guide for floor tiles, recommended adhesive depends on tile type and length of longest side / edge.

Wall Tiles

Good, Better, Best...

Background	Preparation	Good	Better	Best
2 coat plaster	Can only tile on finishing plaster, must be allowed to dry for 4 weeks prior to tiling, maximum weight allowed 20kg/m ² allowing 3.5kg for adhesive and grout	weberfix plus	weberfix pro lite	weberset plus primed with weber PR360
Skimmed plasterboard	Must be allowed to dry for 2 weeks, maximum weight 20kg/m ² allowing 3.5kg for adhesive and grout	weberfix plus	weberfix pro lite	weberset plus primed with weber PR360
Plasterboard	Fix direct no drying time, maximum weight 32kg/m ² at 12.5mm thickness allowing 3.5kg/m ² for adhesive and grout	weberfix plus	weberfix pro lite	weberset plus primed with weber PR360
Sand and cement render	Allow 2 weeks to dry, mix should have been 1 part cement to 3 or 4 parts sand. Generally no tile weight restrictions.*	weberfix plus	weberfix pro lite	weberset plus
Painted surfaces	Only with small light tiles and if the paint is well bonded, cross hatch the paint	weberfix plus	weberfix pro lite	weberset plus
Lightweight foam-cored tile backer boards	Fix as per manufacturer's instructions. Maximum weight 60kg/m ² **	weberset plus	weberset thick bed	weberset plus and weber AD250
Glass reinforced cement-based boards	Fix as per manufacturer's instructions. Maximum weight 50kg/m ² **	weberset plus	weberset thick bed	weberset plus and weber AD250
Gypsum fibreboards	Fix as per manufacturer's instructions. Maximum weight 40kg/m ² **	weberset plus	weberset thick bed	weberset plus and weber AD250
Tile on tile	Ensure the original background can take the extra weight, clean well bonded	weberfix plus	weberfix pro lite	weberset plus

Wall tile types

Tile type	Good	Better	Best
Ceramic Tile with no side > 300mm	weberfix plus	weberfix pro lite	weberset plus
Ceramic Tile with no side > 900mm	weberset plus	weberset thick bed	weberset plus and weber AD250
Ceramic Tile with one side > 900mm	N/A	N/A	weberset plus and weber AD250
Porcelain Tile with no side > 300mm	weberfix pro lite	weberset plus	weberset plus and weber AD250
Porcelain Tile with no side > 900mm	weberset plus	weberset thick bed	weberset plus and weber AD250
Porcelain Tile with one side > 900mm	N/A	N/A	weberset plus and weber AD250
Natural Stone with no side > 900mm	weberset plus	weberset thick bed	weberset plus and weber AD250
Natural Stone with one side > 900mm	N/A	N/A	weberset plus and weber AD250

General guide for wall tiles, recommended adhesive depends on tile type and length of longest side / edge.

Tile weight information

Porcelain-mosaics, Ceramics mosaic, Glass mosaic	7-11 kg/m ²
Ceramics	9-21 kg/m ²
Porcelain	19-26 kg/m ²
Stone 10mm thick	30 kg/m ²
Stone 20mm thick	60 kg/m ²

Maximum tile weight on substrate

Gypsum plaster	20kg/m ²
Skimmed plasterboard	20kg/m ²
Gypsum plasterboard (12.5mm thickness)	32kg/m ²
Sand and cement render	Generally no restriction*
Lightweight foam-cored tile backer boards	60kg/m ² **
Glass reinforced cement-based boards	50kg/m ² **
Gypsum fibreboards	40kg/m ² **
Painted surfaces	Small and light tiles
Tile on tile	Ensure original background can take the extra weight

NOTE Where multiple substrates are installed using only adhesive e.g. tile backer board bonded to plaster, the substrate with the lowest value will determine the recommended maximum weight of tiling. In this context tiling is defined as a tile plus its bedding and grouting material.

*Provided the rendering has sufficient composition and has been installed correctly to achieve high strength

**Guide figures only. Certain boards may be capable of carrying greater weights – consult with the manufacturer for confirmation.

Technical Reference

Standards and classification of adhesives

BS EN 12004:2017 Adhesives for tiles. Definitions and specifications took over from BS 5980:1980 Specification for adhesives for use with ceramic tiles and mosaic after a period of coexistence. The new standard was produced to classify adhesives in relation to the performance criteria identified, thereby allowing for a tighter and more appropriate specification to be made for a particular tile installation.

BS EN 12004:2017

Adhesives and their properties are defined in the EN standard by a combination of three variables: the adhesive chemistry (dispersion, cementitious or reaction resin), the level of performance (normal or improved) and any optional characteristics (fast set, reduced slip, extended open time or deformability). The level of performance and the optional characteristics have defined performance and test requirements. e.g. tensile adhesion after water immersion, heat ageing, freeze thaw etc.

Classification	Optional characteristics
D 1 Normal dispersion adhesive 2 Improved dispersion adhesive	F Fast setting adhesive
C 1 Normal cementitious adhesive 2 Improved cementitious adhesive	T Adhesive with reduced slip
R 1 Normal reactive resin adhesive 2 Improved reaction resin adhesive	E Adhesive with extended open time
	S Adhesive with deformability: S ₁ deformation >25 mm but <5 mm S ₂ deformation >5 mm

Classification and designation

The classifications for the different types of adhesives are then used in conjunction with a particular or a combination of characteristics to provide a range of overall designations as detailed in the table below.

Type	Class	Description
C	1	Normal cementitious adhesive
C	1F	Normal fast-setting cementitious adhesive
C	1T	Normal cementitious adhesive with reduced slip
C	1FT	Normal fast-setting cementitious adhesive with reduced slip
C	2	Improved cementitious adhesive
C	2E	Improved cementitious adhesive with extended open time
C	2F	Improved fast-setting cementitious adhesive
C	2T	Improved cementitious adhesive with reduced slip
C	2TE	Improved cementitious adhesive with reduced slip and extended open time
C	2FT	Improved fast-setting cementitious adhesive with reduced slip
D	1	Normal dispersion adhesive
D	1T	Normal dispersion adhesive with reduced slip
D	2	Improved dispersion adhesive
D	2T	Improved dispersion adhesive with reduced slip
D	2TE	Improved dispersion adhesive with reduced slip and extended open time
R	1	Normal reaction resin adhesive
R	1T	Normal reaction resin adhesive with reduced slip
R	2	Improved reaction resin adhesive
R	2T	Improved reaction resin adhesive with reduced slip
C	2-S1	Improved deformable cementitious adhesive
C	2-S2	Improved highly deformable cementitious adhesive

Examples of how the Classification System works in practice

Type of work	Requirement	Class
Tiling to an internal, plastered, blockwork wall subject to dry conditions with smaller format tiles	A normal dispersion adhesive with good non-slip properties	D1T
Wall tiling to rendered blockwork subject to prolonged wet conditions	A rapid-setting, cement-based adhesive with improved adhesion and non-slip properties	C2T
External wall tiling onto rendered concrete properties	A normal-setting, cementitious adhesive with improved adhesion, non-slip and extended open time	C2TE
Tiling onto internal, screeded concrete floors subject to dry conditions on a fast track contract	A fast-setting, cementitious adhesive	C2F
Tiling onto a timber floor with a plywood overlay in a domestic kitchen	A fast-setting, cementitious adhesive with improved adhesion and good deformability	C2FS1
Tiling to the rendered walls of a swimming pool	A normal-setting, cementitious adhesive with improved adhesion and extended open time	C2T
Tiling onto a T and G wooden floor in a domestic bathroom	A normal-setting, cementitious adhesive with improved adhesion and high deformability	C2F-S2
Tiling to the plastered walls of a domestic power shower using small to medium format ceramic tiles	An improved dispersion adhesive with reduced slip and extended open time	D2TE
Floor tiles to a wash-down area in a bottling plant subject to steam cleaning	An improved reaction resin adhesive	R2

Standards and classification of grouts

BS EN 13888:2015

The publication of BS EN 13888 was the first for ceramic tile grouts and classified grouts in a similar way to **BS EN 12004:2017**. The classification splits grouts into two chemistries: cementitious (CG) and reaction resin (RG).

For cementitious grout (CG), there are two different performance levels (normal and improved), dependent on test results for resistance to abrasion, water absorption, shrinkage and flexural/compressive strength.

Type	Class	Description
CG	1	Normal cementitious grout
CG	2	Improved cementitious grout
RG		Reaction resin grout
W		Reduced water absorption
A		High abrasion resistance

Weber Rewards

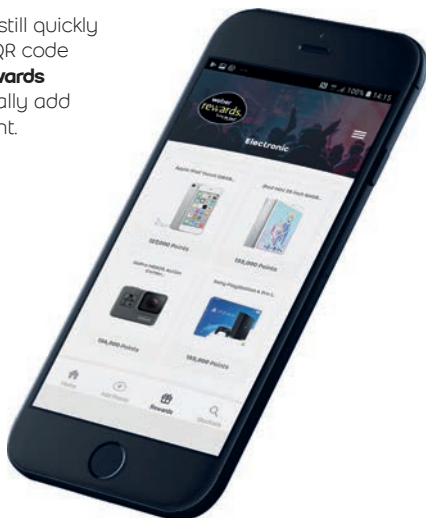
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Step 1 – SIGN UP

Visit www.loveweber.co.uk and follow the on-screen instructions to sign up or login.

Step 2 – COLLECT POINTS

To add points to your **Weber Rewards** account, simply go online and login to www.loveweber.co.uk and click on **Add Points**. Enter your unique code from the **Weber Rewards** sticker and your points will be updated automatically. Alternatively scan the QR code on the **Weber Rewards** sticker using the 'Redeem on the Go' App to instantly add the points to your account.

Step 3 – GET YOUR REWARDS

You can view all of the **Weber Rewards** including the fantastic Virgin Experience Days Collection in our online catalogue at www.loveweber.co.uk

P.S. – LIKE US / FOLLOW US

Like us on Facebook and follow us on Twitter to learn about new products, grab extra points and keep up-to-date with the latest news, updates and information about Weber's unique Trade Day Events.



Points and products table

The table below details the products included within the scheme and the points available for each product.

Product	Size	Rewards Points per product
weberset pro lite – rapid Low Dust	20kg	325
weberfloor flex Low Dust	25kg	275
weberset rapid SPF Low Dust	20kg	275
weberjoint premium	5kg	200
weberfix pro lite	13kg	200
weberset SPF	20kg	175
weberset rapid plus ECO	20kg	175
weberset plus	20kg	75
weberset thick bed	20kg	75

Primer for the preparation of most substrates prior to the application of tile adhesives, levelling compounds and tanking systems

- Multi-purpose priming solution
- Regulates the porosity of substrates and improves adhesion
- Improves the flow of levelling compounds and reduces bubble formation
- Suitable for most building substrates including wood, anhydrite, plaster and cement / sand screed



Essentially non-hazardous

Supplied in 1kg and 5kg bottles
Coverage: 0.1 - 0.4kg/m² dependant on substrate

Substrate Priming Guide

	Substrate	Primer	Ratio Primer:Water	Coverage (kg/m ²)
Walls	Brickwork & Dense Blockwork	✓	1:3	0.10
	Blockwork (Lightweight)	✓	1:3 - 1:5	0.20 - 0.40
	Cement/Sand Render & Concrete	✓	1:3 - 1:5	0.20 - 0.40
	Plaster & Plasterboard	✓	1:3 - 1:5	0.20 - 0.40
	Cement & Fibre-Mesh Boards	✓	1:3 - 1:5	0.20 - 0.40
	Existing Ceramic Tiles	✓	1:1	0.20
Floors	Timber	✓	5:1	0.20
	Anhydrite (Calcium Sulphate) Screed	✓	1:3 - 1:5	0.20 - 0.40
	Cement/Sand Screed & Porous Concrete	✓	1:3 - 1:5	0.20 - 0.40
	Concrete (Powder Floated)	✓	1:3	0.10
	Existing Ceramic & Vinyl Tiles	✓	1:1	0.15 - 0.20
	Steel/Timber	✓	5:1	0.20

✓ Ok - Prime with **weber PR360**

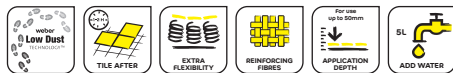


Award winning, fibre-modified, self-smoothing levelling compound which offers extra flexibility for use on most interior floor substrates

- Suitable for most substrates including wooden and heated floors
- Self-smoothing
- For use up to 50mm
- Rapid setting (light foot traffic after 1-2 hours)
- Fibre-modified for increased resilience
- Flexibility to absorb limited movement, e.g. underfloor heating and wood
- Low Dust Technology™ making it more comfortable and cleaner to use



Cement-based



Supplied in 25kg bags
Coverage: 1.7kg of powder for every 1mm of thickness/m²

Self-smoothing levelling compound which gives an ultra smooth finish for use on interior floors

- Suitable for concrete, cement/sand and anhydrite screeds
- For use up to 30mm
- Rapid setting (light foot traffic after 2-4 hours)
- Final floor covering after 24 hours at 5mm thick
- Gives an ultra smooth finish – perfect for covering with carpet, vinyl, lino or parquet flooring
- Low Dust Technology™ making it more comfortable and cleaner to use



Cement-based



Supplied in 25kg bags.
Coverage: 1.7kg of powder for every 1mm of thickness/m²

Ready-mixed, under-tile tanking system which acts as a waterproofing membrane to protect water-sensitive substrates

- Under-tile tanking system for protecting water-sensitive substrates, such as plaster and plasterboard, from exposure to water
- Recommended for wet rooms, showers, bathrooms etc.
- Ready to use – no mixing required
- Easy to use – apply with a roller
- Drying time for fixing tiles 3-4 hours (two coat application) at 20°C
- System includes primer, liquid membrane and a high performance joint reinforcing tape to protect against movement in corners etc.



Supplied as 7kg membrane and 10m tape or as a 5m² shower kit

Coverage: 0.4kg per coat per m² dependent on substrate porosity



Essentially non-hazardous



Award winning, premium, flexible, lightweight and brilliant white ready-mixed wall tile adhesive for interior use

- High performance, extra flexible, ready-mixed wall tile adhesive
- Suitable for dry and intermittently wet areas such as domestic kitchens, bathrooms and showers
- Lightweight – enabling extra coverage
- Non-slip
- High strength
- For fixing ceramic and small porcelain tiles
- Brilliant white



BS EN 12004 - D2TE

Essentially non-hazardous



Supplied in 15kg pails
Coverage: from 1.5kg/m² in dry areas, from 2.5kg/m² in wet areas

High performance, ready-mixed wall tile adhesive with extended open time for interior use

- A ready-mixed, water resistant wall tile adhesive for ceramic tiles
- Suitable for dry and intermittently wet areas such as domestic kitchens, bathrooms and showers
- Non-slip
- White



BS EN 12004 - D2TE

Essentially non-hazardous



Supplied in 15kg pails
Coverage: from 2kg/m² in dry areas, from 3.4kg/m² in wet areas

Ready-mixed wall tile adhesive with extended open time for interior use

- A ready-mixed, water resistant wall tile adhesive for ceramic tiles
- Suitable for dry and intermittently wet areas such as kitchens, bathrooms and showers
- Non-slip, even with heavy tiles
- White



BS EN 12004 - DITE

Essentially non-hazardous



Supplied in 15kg pails
Coverage: from 2kg/m² in dry areas, from 3.4kg/m² in wet areas

Ready-mixed wall tile adhesive for interior use

- A ready-mixed wall tile adhesive for ceramic tiles
- Suitable for projects such as kitchen splashbacks and utility rooms
- Non-slip
- White



BS EN 12004 - DIT

Essentially non-hazardous



Supplied in 15kg pails
Coverage: from 2kg/m² in dry areas, from 3.4kg/m² in wet areas





Premium, ultra-flexible, lightweight, rapid set floor tile adhesive

- Ultra-flexible (S2) whilst still maintaining a strong C2 bond strength
- Lightweight – up to 35% extra coverage*
- Rapid setting, grout in 2 hours
- For fixing ceramic, porcelain and natural stone tiles to interior and exterior floors
- Suitable for heated and wooden floors
- Can be used as a pourable adhesive
- Contains Low Dust Technology™
- Contains ECO SMART™ cement replacement technology



BS EN 12004 - C2F - S2

Cement-based



Supplied in 20kg bags (extra coverage)

Coverage: 1.1kg of powder for every 1mm of thickness/m²

* Based on average usage of **weber set pro lite - rapid** versus other standard Weber tile adhesives



Flexible, rapid set wall & floor tile adhesive

- Rapid setting, grout in 2 hours
- Highly polymer modified
- For fixing ceramic, porcelain and natural stone tiles to interior and exterior walls and floors
- Will accommodate limited movement from heated screeds and / or over-boarded wooden floors
- Can be used as a pourable adhesive for large tiles
- Contains Low Dust Technology™



BS EN 12004 - C2FT - S1

Cement-based



Supplied in 20kg (white) and 20kg (grey) bags

Coverage: 1.5kg of powder per m² for every 1mm of bed thickness



Rapid set wall & floor tile adhesive suitable for larger or heavier tiles

- Rapid setting, grout in 2 hours
- Polymer modified to provide a strong bond onto tiles / substrates with low porosity
- For fixing ceramic, porcelain and natural stone tiles to interior and exterior walls and floors
- Non-slip even with large / heavy tiles
- Suitable for use on solid substrates
- Contains ECO SMART™ cement replacement technology
- Can be used with **weber AD250** to increase flexibility



BS EN 12004 - C2FT

Cement-based



Supplied in 20kg (white) & grey) bags. *Non-ECO formulation

Coverage: 1.5kg of powder per m² for every 1mm of bed thickness



Flexible, standard set wall & floor tile adhesive

- Standard setting (24 hours)
- Highly polymer modified
- For fixing ceramic, porcelain and natural stone tiles to interior and exterior walls and floors
- Will accommodate limited movement from heated screeds and / or over-boarded wooden floors
- Longer pot life for difficult layouts



BS EN 12004 - C2 - S1

Cement-based



Supplied in 20kg (white) 20kg (grey) bags. Coverage: 1.5kg of powder per m² for every 1mm of bed thickness



Standard set wall & floor tile adhesive suitable for larger or heavier tiles

- Standard setting (24 hours)
- Polymer modified to provide a strong bond onto tiles / substrates with low porosity
- For fixing ceramic, porcelain and natural stone tiles to interior and exterior walls and floors
- Non-slip even with large / heavy tiles
- Suitable for use on solid substrates
- Longer pot life for difficult layouts
- Can be used with **weber AD250** to increase flexibility

Cement-based



Supplied in 20kg (white) 20kg (grey) bags.
Coverage: 1.5kg of powder per m² for every 1mm of bed thickness



BS EN 12004 - C2T



Low slump, thick bed wall & floor tile adhesive

- Standard setting (24 hours)
- For use up to 20mm
- For fixing ceramic, porcelain and natural stone tiles to interior and exterior walls and floors
- Will accommodate limited movement from heated screeds and / or over-boarded wooden floors
- Longer pot life for difficult layouts

Cement-based



Supplied in 20kg (white) and 20kg (grey) bags.
Coverage: 1.5kg of powder per m² for every 1mm of bed thickness



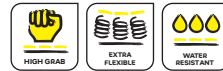
BS EN 12004 - C2T

Highly flexible, performance enhancing admixture & primer

- Acrylic admixture for use with standard adhesives
- Increases adhesion and flexibility
- Allows standard adhesives to be used with impervious tiles and substrates
- Can be used as a primer for areas that are likely to become wet (e.g. showers) and on wood



Essentially non-hazardous



Supplied in 1 & 5kg bottles
Coverage: As an admixture where movement is expected typical usage is approximately 4.5 kg per 20kg of adhesive, depending on the substrate.
As a primer, 0.1 kg/m² of undiluted liquid depending on the porosity of the substrate.

Highly flexible, two part adhesive

- Standard setting (24 hours)
- For fixing most tiles to walls / floors
- Will accommodate some movement from heated, floating, tongue and groove floors and green screeds
- Provides a strong bond to difficult substrates

Cement-based



Supplied in 20kg (white & grey) bags and 1kg and 5kg bottles
Coverage: 1.5kg of powder per m² for every 1mm of bed thickness



BS EN 12004 - C2 - S2

Highly flexible, two-part, rapid set adhesive

- Rapid setting, grout in 2 hours
- For fixing most tiles to walls and floors
- Will accommodate some movement from heated, floating, tongue and groove floors and green screeds
- Provides a strong bond to difficult substrates

Cement-based



Supplied in 20kg (white & grey) bags and 1kg and 5kg bottles
Coverage: 1.5kg of powder per m² for every 1mm of bed thickness
*Non-ECO formulation



BS EN 12004 - C2F - S1



Premium, flexible wall & floor tile grout with PURE CLEAN anti-stain technology. Suitable for interior and exterior projects (1-20mm joints)

- Rapid setting
- Smooth, durable and efflorescence resistant finish
- Contains PURE CLEAN anti-stain technology greatly improving resistance to staining and discolouration
- Scratch resistant formulation is ideal for grouting soft-faced stone such as marble
- Limited flexibility to absorb movement from wooden floors or underfloor heating
- Water repellent surface for reduced water penetration
- Contains Mould Stop Technology for lasting protection from mould growth
- Available in 18 colours, matching silicones are available



BS EN 13888 - CG2 WA

Cement-based



Supplied in 5kg bags in 18 colours - see page 11
Coverage: 0.15 to 0.5kg/m² depending on tile and joint size

weberjoint wide flex

Flexible, wide joint wall & floor tile grout suitable for interior and exterior projects (2-20mm joints)

- Coarse texture
- Abrasion resistant
- Limited flexibility to absorb movement from wooden floors or underfloor heating
- Water repellent surface for reduced water penetration
- Contains Mould Stop Technology for lasting protection from mould growth

Cement-based



Supplied in 5kg and 10kg bags in grey - see page 11
Coverage: 0.6 to 12kg/m² depending on tile and joint size



BS EN 13888 - CG2 WA

weberjoint wide

Wide joint wall & floor tile grout, suitable for interior and exterior projects (2-20mm joints)

- Coarse texture
- Abrasion resistant
- Water repellent surface for reduced water penetration
- Contains Mould Stop Technology for lasting protection from mould growth

Cement-based



Supplied in 5, 10 and 20kg bags in 2 colours - see page 11
Coverage: 0.6 to 12kg/m² depending on tile and joint size



BS EN 13888 - CGI A

weberjoint wall

Fine wall tile grout suitable for interior and exterior projects (1-3mm joints)

- Very fine texture
- Water repellent surface for reduced water penetration
- Contains Mould Stop Technology for lasting protection from mould growth
- Suitable for domestic kitchens, bathrooms, showers and swimming pools

Cement-based



Supplied in 5, 10 and 12.5kg bags in 2 colours - see page 11
Coverage: 0.2 to 0.8kg/m² depending on tile and joint size



BS EN 13888 - CGI A

weberjoint silicone

Premium silicone sealant available in a range of 18 colours including clear

- Pure sanitary silicone sealant
- Contains anti-fungal agent to inhibit mould growth in areas of high humidity
- Waterproof, with an excellent bond strength
- Suitable for use as a kitchen, utility room, wet room or bathroom sealant
- Available in a range of colours matching the Weber grout range - see page 11



Essentially non-hazardous

Supplied in 310ml cartridge in boxes of 6



Substrate Diagnosis

The 8 key points to check

Good tile adhesion depends on a correct diagnosis and proper preparation of the substrate beforehand. The following description explains how this should be done. The substrate must be flat, hard, stable, well adhered, clean, dry and have normal absorption.

1. Flatness

How to check the flatness of the substrate

The substrate must be flat in order to avoid an unsightly appearance or defects that can affect the behaviour of the tiles after fixing them onto the floor (do not confuse flatness with horizontality: a substrate can be flat without being completely horizontal).

- 1.1 The flatness of the substrate should be checked with a 2m straight edge mounted on 3mm thick spacers. In the case of direct bonding of the tiles, any defects should not exceed $\pm 3\text{mm}$ (ie. high points not touching and low points no more than 6mm below) under the 2m straight edge.

2. Hardness

How to check the hardness of the substrate

The substrate must be both hard and resistant in order to avoid cracking or debonding at a later stage.

- 2.1 Check the surface hardness by scratching it with a pointed tool in several places. The scratch must be superficial. If the substrate is not hard enough, it must be removed until sound material is reached.
- 2.2 Also check the in-depth hardness of existing screeds or plastered walls.

3. Stability

How to check the stability of the substrate

The substrate must be stable in order to avoid deterioration of the tiling at a later stage.

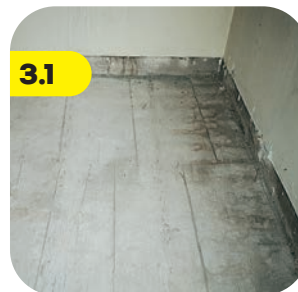
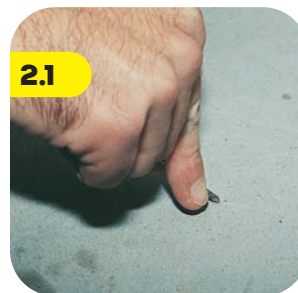
- 3.1 This check mainly concerns wooden floors laid on joists or battens, wooden panels and, more rarely, partitions.
- 3.2 The floor must not move when stepped on. Partitions must not flex when pressed by hand.
If this is not the case, reinforce the floor with noggings between the joists and replace the boards. Brace unstable partitions.

4. Porosity

How to check the porosity of cement-based substrate

Cement-based substrates must have normal absorption in order to avoid premature water loss from the cement-based adhesive and to ensure that the bond can develop correctly.

- 4.1 Pour a little water onto the substrate.
- 4.2 If the water is absorbed in less than 1 minute the substrate is considered as excessively porous and requires priming with **weber PR360**.



Substrate Diagnosis

5. Adhesion

How to check the adhesion of the existing coverage

The substrate must be cohesive and resistant in order to ensure the cement-based adhesive bonds properly.

- 5.1 Check the adhesion of existing tiles or rigid floor tiles by tapping with a hammer.
- 5.2 Any hollow sounding tiles or tiles with poor adhesion must be removed and replaced or repaired.
- 5.3 To check the adhesion of existing paint, carry out a cross-hatch test using a suitable knife or cutter. Emulsion paint is not suitable for tiling over.
- 5.4 Score the paint in small 2 x 2mm squares over a total area of 10 x 10cm. The paint is considered suitable for tiling if 80% of the area of the small squares remain bonded. If not, the paint must be removed mechanically.



6. Cleanliness

How to clean the substrate

The substrate must be clean in order to ensure the adhesive bonds properly.

- 6.1 Eliminate any traces of contaminant with a scraper. Carefully vacuum any dust and then apply **weber PR360** primer.
- 6.2 If the existing floor covering has been removed, eliminate any traces of adhesive so that no film residues remain, only residual coloration of the substrate. Apply **weber PR360** primer.
- 6.3 If the existing covering is retained, remove any traces of varnish or wax with an emulsifying pad and sugar soap. Wash existing paints, vinyl or ceramic tiles.
- 6.4 On concrete, remove any residues that may affect the adhesion, such as superficial free lime or traces of oil, using high pressure cleaning, sanding, abrasive cleaning, etc.



7. Humidity

How to check if the substrate is dry

The substrate must not leach moisture.

- 7.1 Plaster substrates must not have more than 5% residual moisture during application. A minimum of 4 weeks drying time must be allowed prior to tiling.

Anhydrite screeds must not have more than 0.5% residual moisture before being covered.

Cement/sand renders and screeds must be left for 2 weeks and 3 weeks respectively prior to tiling unless special fixing methods are employed.



8. Priming

- 8.1 Gypsum plaster should normally be primed before applying a tile adhesive. If the adhesive is cement-based, it must be sealed with **weber PR360**.

Remove any laitance from anhydrite screeds and seal with **weber PR360** before applying any cement-based product, levelling compound or tile adhesive.



Problem 1

Tiling onto wood

Because wooden floors naturally bend, bounce and expand, tiles can end up cracking under the pressure if installed incorrectly. Tiling onto wood is all about ensuring there is enough rigidity in the wooden subfloor and selecting the correct flexible tile adhesive.

1. General deflection due to the applied load

The floor will deflect according to the load applied and the stiffness of the structure (joint size, spacing etc.)

If the adhesive is not flexible or laid thick enough to absorb the amount of movement, the tiles will either delaminate or crack.

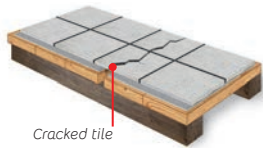
Large tiles will exacerbate the deflection across each tile's width.



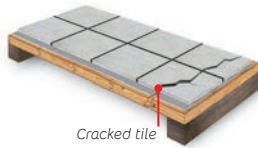
2. Localised movement at unsupported board joints

Any inadequately supported joint will cause a highly localised movement which can crack tiles. Joints may be supported by joists, noggings, or the tongue/groove of each board beneath.

Non-tongue and grooved timber



Unsupported tongue and grooved timber



3. Temperature related expansion and contraction

Wood expands and contracts with changes in ambient temperature at a different rate to mortars, ceramics and stones.

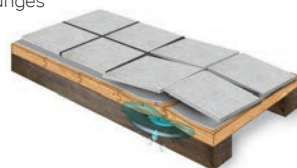
As a further complication, timber expands much more across the grain than it does along the grain (this is not really a factor with manufactured boards such as plywood).



4. Moisture/humidity related expansion & contraction

Wood swells if it gets wet even with changes in atmospheric humidity.

This can be a problem in potentially wet areas such as showers and bathrooms and also if the wood is not dry when installed (e.g. if it has been kept outside).



Solution 1.1

Tiling onto timber or non-tongue and groove floorboards and chipboard

Timber and non-tongue and groove floorboards and chipboard are usually subject to large amounts of deflection/movement, and therefore cannot be tiled onto with even the most flexible of tile adhesives.

This means you will need to strengthen the substrate first with either a levelling compound, tile backer board or plywood. Use our guide below to learn how to tile onto timber floors.

1 Increase rigidity and strengthen the substrate

You will first need to increase the rigidity of your substrate either by covering with a 10mm layer of **weberfloor flex**, 6mm tile backer board, or 15mm plywood. Please see solution 1.4 on pages 38 and 39 for our step-by-step guide on strengthening a wooden floor for tiling. Strengthening the substrate will decrease the amount of movement associated with timber and non-tongue and groove floorboards and chipboard.

2 Fix tiles with a suitable flexible tile adhesive

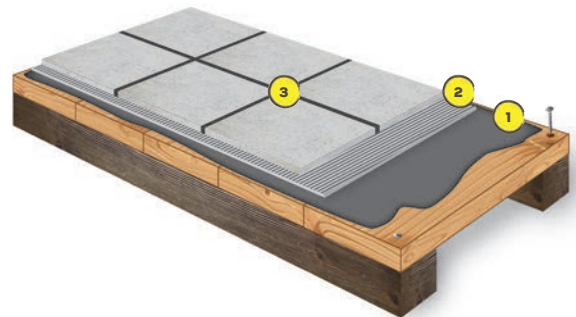
Fix tiles with a 3mm bed of improved flexible tile adhesive (S1) – such as **weberbet SPF** or **weberbet rapid SPF** – and leave joints of at least 3mm wide for grouting and make provisions for movement.

If you are fixing tiles above 400mm by 400mm in size, or heavier tiles made of stone, quartz or terrazzo, you will require an ultra-flexible tile adhesive (S2) such as **weberbet pro lite – rapid**.

3 Finish with grout and silicone

Leave tile adhesive to set and fill joints with a flexible floor tile grout such as **weberjoint premium** which is available in a range of 18 colours and contains PURE CLEAN anti-stain technology.

Finish the job by sealing the perimeter movement joints with **weberjoint silicone** sealant – available in clear and also colour-matched to all 18 colours of our **weberjoint premium** grout.



Levelling:

weberfloor flex

Tiling:

weberbet SPF

or

weberbet rapid SPF

or

weberbet pro lite - rapid

Grout and silicone:

weberjoint premium

and

weberjoint silicone

Solution 1.2

Tiling onto tongue and groove floorboards and chipboard

It is possible to tile directly onto tongue and groove wooden floors, but the high amounts of deflection/movement will mean that an ultra-flexible (S2) tile adhesive is required.

Alternatively, another option is to strengthen the substrate with either a layer of floor screed or by overboarding with plywood/tile backer board, and then using an improved flexible (S1) tile adhesive.

1 Determine if you need to increase rigidity of the substrate

Depending on the amount of movement and deflection, you may need to strengthen the substrate before tiling. You can do this either by covering with a 10mm layer of **weberfloor flex**, 6mm tile backer board, or 15mm plywood. Please see solution 1.4 on pages 38 and 39 for our step-by-step guide on strengthening a wooden floor for tiling. Strengthening the substrate will decrease the amount of movement associated with timber and non-tongue and groove floorboards and chipboard.

2 Fix tiles with a suitable flexible tile adhesive

If you strengthened the substrate with tile backer board, plywood or with a layer of **weberfloor flex**, you will now need to fix tiles with a 3mm bed of improved flexible tile adhesive (S1) – such as **weberset SPF** or **weberset rapid SPF** – and leave joints of at least 3mm wide for grouting and make provisions for movement.

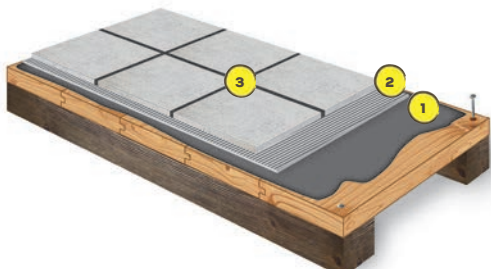
You will require an ultra-flexible tile adhesive (S2) such as **weberset pro lite – rapid** if you are either:

- Tiling directly onto the tongue and groove floorboards or chipboard
- Fixing tiles above 400mm by 400mm in size
- Using heavier tiles made of stone, quartz or terrazzo

3 Finish with grout and silicone

Leave tile adhesive to set and fill joints with a flexible floor tile grout such as **weberjoint premium** which is available in a range of 18 colours and contains PURE CLEAN anti-stain technology.

Finish the job by sealing the perimeter movement joints with **weberjoint silicone** sealant – available in clear and also colour-matched to all 18 colours of our **weberjoint premium** grout.



Levelling:

weberfloor flex

Tiling:

weberset SPF

or

weberset rapid SPF

or

weberset pro lite - rapid

Grout and silicone:

weberjoint premium

and

weberjoint silicone

Solution 1.3

Tiling directly onto plywood

If the floor consists of sheets that do not support each other, it is necessary to ensure that each edge is fully supported underneath. If the tiles are small (no larger than 400mm by 400mm) an improved flexible (S1) tile adhesive is suitable. For larger or heavier tiles, you will require an ultra-flexible (S2) tile adhesive.

1 Assess and prepare the surface

Make sure the floor will be capable of supporting the expected load with minimal deflection. It must be stable, well supported, ventilated underneath and level.

The sheets of plywood should be of exterior grade plywood and at least 18mm thick. It may be necessary to increase the thickness if heavy loads are anticipated or if the joists are spaced more widely than normal. Replace any defective sheets and fit noggins between the joists beneath any unsupported sheet edges. Prime the back and edges of plywood with **weber PR360**.

Screw the sheets to the joists/noggins every 200-300mm, leaving 2mm to allow for expansion. Fill the gaps with **weberjoint silicone** sealant to prevent them being filled with tile adhesive when fixing the tiles.

2 Fix tiles with a suitable flexible tile adhesive

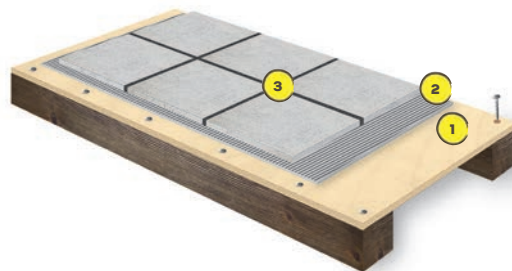
Lay tiles with a 3mm bed of improved flexible tile adhesive (S1) – such as **weberset SPF** or **weberset rapid SPF** – and leave joints of at least 3mm wide for grouting and make provisions for movement.

If you are fixing tiles above 400mm by 400mm in size, or heavier tiles made of stone, quartz or terrazzo, you will require an ultra-flexible tile adhesive (S2) such as **weberset pro lite – rapid**.

3 Finish with grout and silicone

Leave tile adhesive to set and fill joints with a flexible floor tile grout such as **weberjoint premium** which is available in a range of 18 colours and contains PURE CLEAN anti-stain technology.

Finish the job by sealing the perimeter movement joints with **weberjoint silicone** sealant – available in clear and also colour-matched to all 18 colours of our **weberjoint premium** grout.



Priming:

weber PR360

Tiling:

weberset SPF

or

weberset rapid SPF

or

weberset pro lite - rapid

Grout and silicone:

weberjoint premium

and

weberjoint silicone

Solution 1.4

Strengthening a wooden floor for tiling

Because wooden floors naturally bend, bounce and expand, tiles can end up cracking under the pressure if installed incorrectly. When tiling onto a wooden substrate, it is key to increase its rigidity and strength to avoid any issues across the lifetime of your newly tiled floor.

Apply a floor levelling compound

1 Fill gaps with sealant

Use **weberjoint silicone** to ensure that all gaps between the floorboards are sealed to avoid the levelling compound escaping through.

2 Prime the surface

Prime the existing floorboards with **weber PR360** and allow to dry. This will offer good alkali resistance, increase adhesion, and prevent air bubbles forming in the levelling compound.

3 Attach barrier foam

Attach barrier foam to the perimeter of the area you are looking to cover with levelling compound. Take extra care to make sure the foam is fully adhered to the substrate to avoid any of the levelling compound mixture leaking through.

4 Apply levelling compound

Mix and pour **weberfloor flex** to the required thickness (minimum thickness in this scenario must be 10mm) and make sure that any movement joints in the substrate are carried through the screed and tiling layer.

5 Finish with spiked roller

Use a spiked roller across the entire area to remove any visible air bubbles, and then allow **weberfloor flex** levelling compound to fully cure (1-2 hours).



Overboard with tile backer board or plywood

1 Select a suitable board

For overboarding a flooring substrate, you can either use tile backer board to a minimum thickness of 6mm or WBP exterior grade plywood to a minimum thickness of 15mm.

This choice is mainly down to personal preference and also depending on how much you want to raise the floor level by.

2 Prime and lay boards

Prime backs and edges of boards with **weber PR360**.

Lay boards so that they do not coincide with the joints in the existing wooden floor and make sure to leave slight gaps between board and perimeter for expansion. Screw boards down every 200-300mm.

3 Fill gaps with sealant

Fill gaps between boards and at perimeter with **weberjoint silicone** sealant.

4 Assess further requirements

If there is still movement in the floor, you may need another layer of tile backer board or plywood.



Priming:

weber PR360

Levelling

weberfloor flex

Silicone:

weberjoint silicone

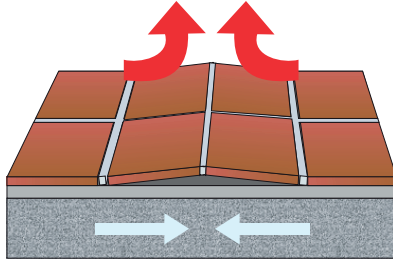
Problem 2

Tiling onto green screeds or concrete

Green screeds are usually 1:3 or 1:4 cement and sand at a usual thickness of 50mm. These screeds can be applied both bonded directly onto a concrete base or un-bonded (applied on to a polythene sheet damp proof membrane). Both screed and concrete are referred to as being green during the period from application through to the time it gains strength and reaches dimensional stability.

1. New screeds and concrete shrink as they dry

Newly-laid cementitious screeds and concrete contain relatively large amounts of water, which need to be retained while the cement binder is gaining strength. Full strength may not be achieved for a period of 28 days but screeds should be kept moist for at least 7 days to allow sufficient strength gain before drying is allowed.



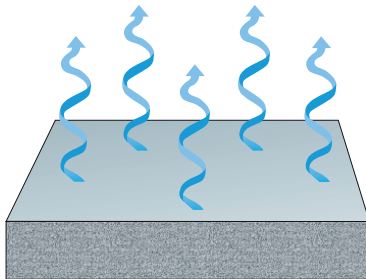
After this period, retained water needs to evaporate away until a normal moisture content is reached. During this time shrinkage occurs to compensate for the volume loss of water.

Tiling a screed too soon whilst the substrate is still stabilising can result in tiles blowing away from their base (heaving) as the screed shrinks below.

Concrete substrates take far longer to reach stable equilibrium than sand and cement screeds due to their greater thickness.

2. New screeds and concrete take a long time to dry

Cement-based materials need to retain moisture until the hydration process is complete. To this end a polythene sheet is often laid over newly applied screed for seven days to control evaporation of water and ensure that full strength is attained.



In warm and well-ventilated drying conditions, screed up to 40mm in thickness can take 1 day per mm to dry. Thicker substrates will require 2 days per mm.

BS 5385-3:2007 Code of practice for the design and installation of ceramic floor tiles and mosaics, specifies that a screed shall be left for at least 3 weeks to dry prior to tiling. However, other documents specify longer periods and BS 8204 recommends 1 day per mm, for thicknesses up to 50mm.

Normally 3 weeks is the absolute minimum.

Solution 2

Use fixing materials that will tolerate some movement

Flexible adhesives and grouts, which tolerate movement, compensate for the shrinkage in the substrate and yet still allow the screed to evaporate excess water through the grout joints. They are ideal for fixing ceramic and porcelain tiles as well as calibrated stone and slate.

1 Assess and prepare the floor

Screeds should be firm enough to walk on, usually at least 3 days after application, before tiling can be started.

Concrete should be at least 7 days old.

All substrates to be tiled must be clean and surface dry.

Particular care should be taken that movement joints are adequately specified.

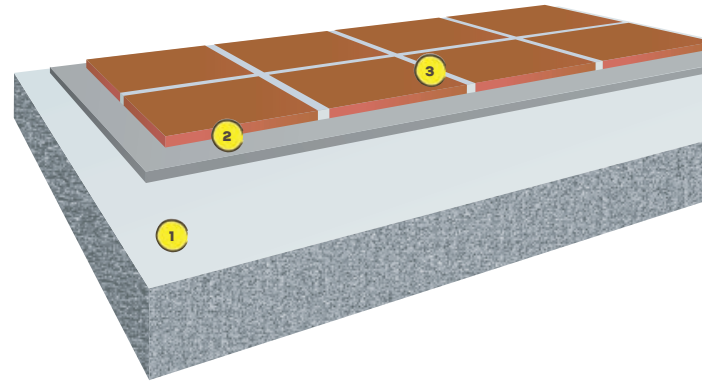
2 Fix the tiles

Fix the tiles into a solid bed of **weberjet pro lite - rapid** at 5mm thick.

Leave joints at least 3 mm wide for grouting and make provision for movement.

3 Grout

Grout the joints with **weberjoint premium** or **weberjoint wide flex** and use **weberjoint silicone** to fill perimeter movement joints.



Tiling

weberjet **pro lite - rapid**

Grout and silicone:

weberjoint **premium**

or

weberjoint **wide flex**

and

weberjoint **silicone**

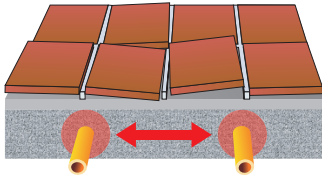
Problem 3

Tiling with underfloor heating or under-tile warming

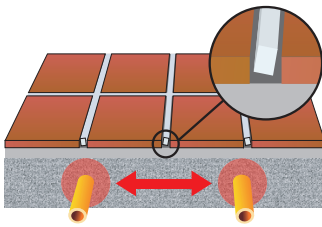
Underfloor heating can cause an array of issues if not tiled onto correctly, from cracking due to heat expansion to damaging wires with a trowel.

There are **two** solutions for this problem, one for each electric underfloor heating and piped underfloor heating.

1. Movement due to thermal expansion and contraction

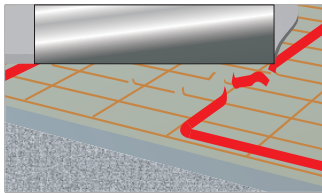


The screed and the adhesive, being of a similar material, expand at a similar rate to each other. However, the tiles usually have a slightly lower coefficient of thermal expansion - so for a given temperature rise they will grow proportionately less. The result on the tile-fixing products is twofold: Stresses build at the interface between the tile and the adhesive.



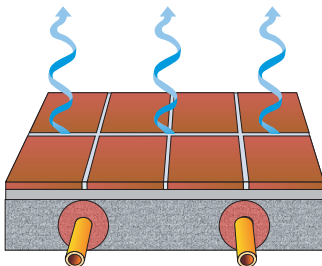
At some point this will be too great and the weakest part of the system will yield - usually the bond between the tile and the adhesive. As the base expands in relation to the tiles they try to move slightly further apart stretching the grout joints. Cementitious products are inherently weak in tension and the bond onto the tile edge can fail.

2. Damage to wires from the trowel



One of the most common reasons for problems with the installation of an under-tile warming system is damage made during fitting. When covering the wires with adhesive it is quite easy to accidentally cut a wire with the trowel.

3. Switching on too soon weakens the adhesive & grout



Cement-based adhesives and grouts set hydraulically as water is involved in the hardening reaction. If the adhesive is allowed to dry out before it has properly hardened it will tend to be weak and crumbly. It is important that the heating system is off when tiles are fixed and remains off until the adhesive and grout have fully cured.

Solution 3.1

Use floor leveller on electric underfloor heating

Our highly polymer-modified levellers, adhesives and grouts have enough flexibility when set to accommodate thermally induced movement.

A floor leveller can be used to cover and protect the wires that otherwise could get damaged during application of the adhesive, and can stabilise movement in the floor.

1 Prepare substrate

First, ensure your substrate is rigid, sound, clean and dry.

For solid substrates: Prime with **weber PR360** and allow to dry.

For wooden substrates: Ensure it is capable of supporting the expected load and probable dynamic load, without excessive deflection. You can take up existing boards and stiffen them with noggings to add extra strength. Alternatively, extra rigidity can be achieved through overlaying the existing timber boards with either WBP plywood or tile backer board. Plywood should be at least 18mm thick, primed on the reverse face and edges with **weber PR360** and screwed every 300mm. Tongue and groove, chipboard or floorboards must be screwed to joists using two screws per board at every joist. All boards should be primed with **weber PR360**. All joints between boards should be filled with **weberjoint silicone** sealant to prevent leakage during application.

2 Install underfloor heating

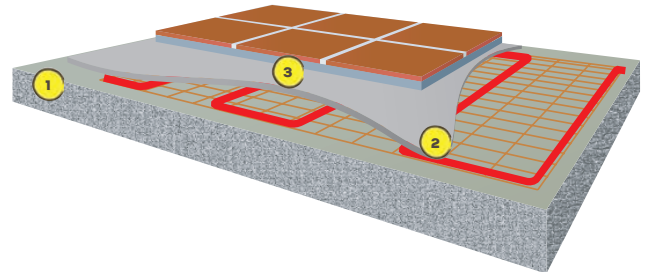
Install underfloor heating system in accordance with the manufacturer's instructions and test that it works. Turn it off and allow to cool.

Apply **weberfloor flex** self-smoothing compound up to 50mm deep (10mm maximum for wooden substrates) or until the warming elements are covered by at least 3mm. Allow 3 hours before foot traffic.

3 Fix tiles

Fix the tiles into a bed of **weberset pro lite - rapid**, **weberset rapid SPF** or **weberset SPF** at least 3mm thick (5mm thick for wooden substrates). Leave joints at least 3mm wide for grouting and make provisions for movement.

Grout the joints with **weberjoint wide flex** or **weberjoint premium** and use **weberjoint silicone** sealant to fill perimeter movement joints.



Solution 3.2

4 Allow to cure

Keep the warming system turned off for at least 5 days to allow the cement to cure. Bring the system up to its operating temperature gradually in stages over a few days, do not exceed 27°C and no more than 5°C per day.



Use floor leveller on underfloor heating pipes

Piped heating systems are buried in reinforced cement/sand floating screeds of not less than 65mm thick. If a polymer-modified levelling screed is used it must cover the pipes by a minimum of 10mm. Our highly polymer-modified adhesives and grouts have enough flexibility to accommodate thermally-induced movement.

1 Prepare

The heating pipes should be installed according to manufacturer's instructions, fixed down and tested prior to being encapsulated in a screed or levelling compound.

If the pipes have been laid in a reinforced cement/sand screed this must be allowed to dry fully prior to tiling. A sand/cement screed should be left for 3 weeks with the underfloor heating off to dry. After this period the heating system should be turned on and raised by a maximum of 5°C per day until the maximum recommended operating temperature is achieved. This temperature should be maintained for 3 days and then the system turned off and the screed allowed to cool to 15°C before tiling commences.

If **weberfloor flex** levelling compound is used to cover the pipes instead of a cement/sand screed, the drying time will be considerably shorter. Ensure that the cured surface of the floor is rigid, sound, clean, dry and free from any contaminating barrier. Prime with **weber PR360** and allow to dry.

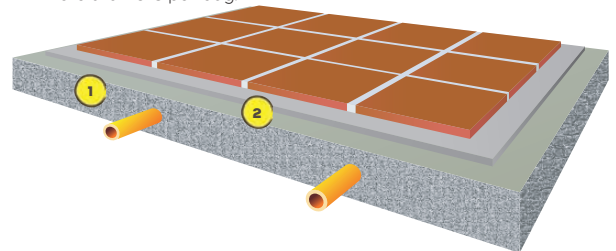
2 Fix tiles

Fix the tiles into a solid bed of **weber set pro lite - rapid**, **weber set rapid SPF** or **weber set SPF** at least 3mm thick. Leave joints at least 3mm wide for grouting and make provisions for movement.

Grout the joints with **weber joint wide flex** or **weber joint premium** and use **weber joint silicone** sealant to fill perimeter joints.

3 Allow to cure

Keep the warming system turned off for at least 5 days to allow the cement to cure. Bring the system up to its operating temperature gradually in stages over a few days, do not exceed 27°C and no more than 5°C per day.



Priming:	Tiling:	Grout and silicone:
weber PR360	weber set SPF	weber joint premium
	or	or
Levelling:	weber set rapid SPF	weber joint wide flex
weberfloor flex	or	and
	weber set pro lite - rapid	weber joint silicone

Priming:	Tiling:	Grout and silicone:
weber PR360	weber set SPF	weber joint premium
	or	or
Levelling:	weber set rapid SPF	weber joint wide flex
weberfloor flex	or	and
	weber set pro lite - rapid	weber joint silicone

For detailed instructions, please refer to the relevant product data sheet. For further information, please contact our Technical Helpline on 01525 718877 or visit www.loveweber.co.uk

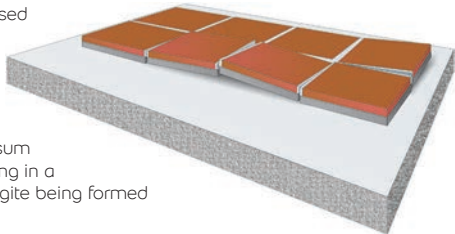
Problem 4

Tiling onto anhydrite screeds

Anhydrite screeds have become quite common as they offer benefits over sand/cement screeds. They are relatively easy to lay, low cost, fast-drying, pumpable, self-levelling and offer minimal shrinkage. They are suitable for use with underfloor heating as long as pipes/elements are covered by 25mm. However, tilers must be aware of a number of potential problems.

1. These screeds have a gypsum content

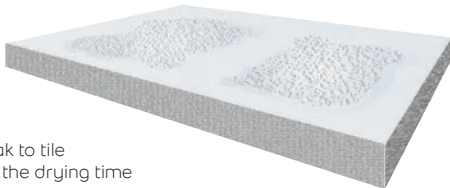
When a cement-based adhesive is applied directly onto the floor, cement in the tile adhesive reacts with the gypsum in the screed resulting in a mineral called ettringite being formed at the interface.



The associated structural change is sufficient to cause a complete debond of the cementitious adhesive away from the screed base.

2. Anhydrite has a weak surface layer

As anhydrite cures, a weak layer of laitance is formed on the surface.

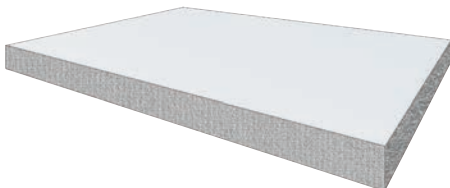


This layer is too weak to tile onto and also slows the drying time of the screed.

3. Anhydrite screeds may be difficult to identify

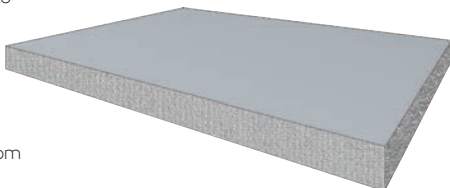
Anhydrite screeds are made from inert fillers such as sand, with a binder system based on calcium sulphate. Consequently they can look very similar to a sand/cement screed.

Anhydrite screed (calcium sulphate based)



Traditional sand/cement screed

Anhydrite will tend to appear lighter, sometimes almost white, but in practice it is difficult to identify an existing anhydrite screed from a traditional one.



Solution 4

Preparation of the surface prior to tiling

If a screed is known to be anhydrite it must be thoroughly sealed before the application of a cement-based tile adhesive. If the screed type is not known and it is believed that it could be anhydrite, the screed should be thoroughly sealed as a precaution.

1 Assess and prepare the floor

The cured anhydrite screed will have a layer of laitance that will need to be removed after 2 - 6 days (dependent on brand of screed used). This will provide a dense surface to tile onto and will aid drying.

Ensure the floor is fully dry – the residual moisture level should be less than 0.5%. Drying times vary according to the brand of screed used. Some are designed for fast-track use, whilst others require the standard drying times. If no other information is available assume the screed will take 1 day per mm up to 40mm in thickness to dry in normal conditions. Screeds thicker than 40mm will require 2 days per mm.

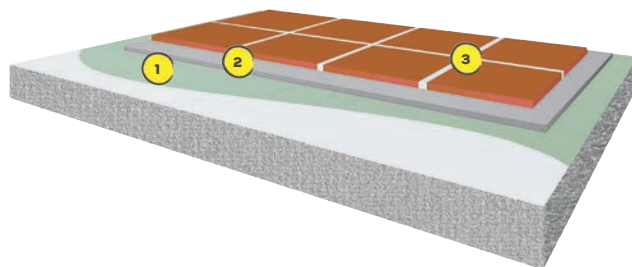
The floor must be abraded and sealed with **weber PR360** repeatedly until no more is absorbed and allow the primer to dry before tiling. An uncoupling membrane can be used to reduce stress on the tiling layer and to ensure that ettringite does not cause a failure.

2 Fix the tiles

Fix tiles into a solid bed of **weberset rapid SPF** or **weberset pro lite – rapid** at least 3mm deep. Leave joints at least 3mm wide for grouting and make provisions for movement.

3 Grout

Fill the joints between tiles with **weberjoint premium** or **weberjoint wide** and use **weberjoint silicone** sealant to fill perimeter movement joints.



Priming:

weber PR360

Tiling:

weberset rapid SPF

or

weberset pro lite - rapid

Grout and silicone:

weberjoint premium

or

weberjoint wide

and

weberjoint silicone

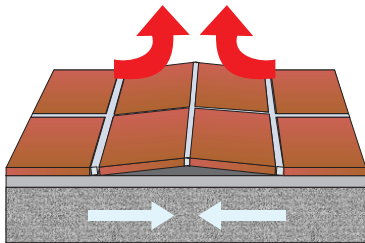
Problem 5

Tiling with an uncoupling membrane

The use of uncoupling membranes has become more common in recent years due to the variety of problems that it can overcome. There are many different types of uncoupling membranes available which either have added features or should be used for certain situations so it is always important to speak to the supplier before commencing.

1. Shrinkage/expansion of a substrate

Newly-laid screeds and concrete contain relatively large amounts of water and as this evaporates, the screed will shrink to compensate for the resulting volume loss.



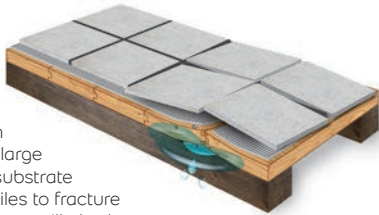
All substrates will shrink and expand naturally due to humidity and/or temperature fluctuation.

Any movement, whether shrinkage or expansion will cause stresses to form between the substrate and the tiling layer as both move at a different rate. These stresses either fracture or delaminate the tiles.

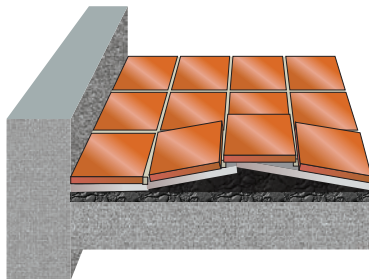
2. Protecting water-sensitive substrates

Nearly all substrates are affected by water in some way but certain substrates such as plaster, anhydrite or plasterboard will lose nearly all its cohesive strength if it gets wet.

Most wooden substrates, when wet, will expand/warp causing large stresses to form between the substrate and the tile, which can cause tiles to fracture or delaminate. Wooden substrates will also become weak and rot if continually wet.



3. Difficult substrates



Certain substrates can be very difficult to reliably tile in a conventional manner. Existing asphalt contains oils which make it very hard to adhere to whilst metal substrates are very smooth allowing virtually no mechanical key.

Solution 5

Using uncoupling membranes

Uncoupling membranes are usually used to uncouple the tiling layer from the substrate and thus reduce the stresses built up between substrate and tile. They can also offer waterproofing and channels for evaporation or heat exchange. Contact the supplier of the membrane prior to application to make sure that the correct uncoupling membrane/technique is being used.

1 Preparation

The substrate must be clean and free from dust, grease etc. Any irregularities in the surface should be corrected so that the surface is level and without voids. Existing old asphalt should be lightly sanded to roughen the surface and then vacuumed to remove as much dust as possible. The membrane should be spread out on the floor, cut to size (allow expansion joints at perimeter) and then rolled back up.

2 Application of an uncoupling membrane

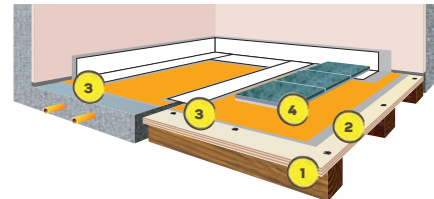
weberset SPF should be combed onto the substrate using a 3 x 3mm notched trowel. The membrane should then be pressed into the adhesive bed using a rubber float in the direction the membrane is being laid to prevent air pockets forming. Adjoining sheets should be carefully abutted. All existing movement joints must be followed through the substrate and tiling layer. Extra movement joints should be included on large areas as per BS 5385.

3 Waterproofing

If the membrane is also to be used as a waterproofing layer, the joints between sheets, perimeter joints and movement joints need to be sealed. Spread a thin layer of **weberset SPF** across the joints and then bed a flexible layer of membrane into the adhesive. The membrane must overlap the joint by at least 50mm. For perimeter joints, the same method applies but care must be taken not to fill the movement joints at the edge of the sheets with adhesive.

4 Fixing the tiles

Fix the tiles into a solid bed of **weberset SPF**, **weberset rapid SPF** or **weberset pro lite - rapid**. If the uncoupling membrane has cavities, fill these first with the flat edge of a trowel before spreading adhesive onto the membrane with a notched trowel. Grout the tiles with **weberjoint premium** or **weberjoint wide flex** and use **weberjoint silicone** sealant to fill perimeter movement joints.



Tiling:

weberset **SPF**

or

weberset **rapid SPF**

or

weberset **pro lite - rapid**

Grout and silicone:

weberjoint **premium**

or

weberjoint **wide flex**

and

weberjoint **silicone**

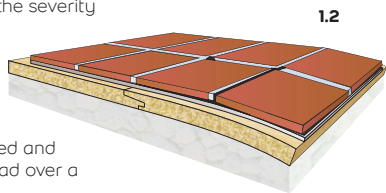
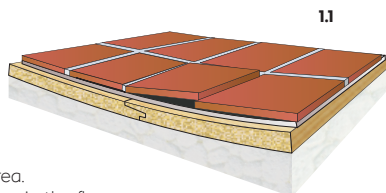
Problem 6

Tiling onto floating floors

Floating floors is a term used for a floor that is not attached to a rigid substrate. Generally this will be a tongue and grooved wooden board above an acoustic or insulation material. They are used to improve floor insulation and/or to reduce noise. Normal wooden floors flex when loaded but this movement is even greater on a floating floor as the boards are not supported by joists.

1. Deflection

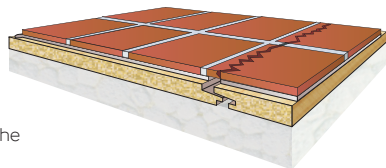
- 1.1 As a floating floor is not supported by joists, any applied load creates significant movement over a big area. This can be felt as bounce in the floor when it is walked across. As the applied load increases so does the severity of movement.
- 1.2 The edges of a floating floor are even more susceptible to exaggerated movement as they are not supported and any applied load is spread over a smaller area.



If the adhesive used to fix the tiles is not flexible or thick enough to absorb the amount of movement, the tiles will either delaminate or crack. Large tiles will exacerbate the deflection across each tile's width.

2. Unsupported joints

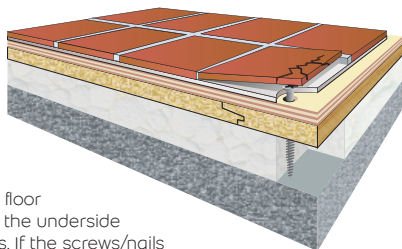
If a joint between wooden boards of a floating floor is not correctly located or fixed, it will be susceptible to highly localised movement which will crack the tile along the joint.



If the boards of a floating floor are not tongue and grooved, they are not suitable for tiling.

3. Columns

When a floating floor is overboarded to add rigidity, the extra board has to be securely attached to the original boards. If nails are used, constant movement of the floor can loosen them, press on the underside of the tile and cause cracks. If the screws/nails used are too long they can bottom out on a rigid surface underneath and create a column, over which tiles will crack.



Solution 6

Overboard with plywood or tile backer-board

A secure solution is to fix a second board over the existing timber. This increases the rigidity and prevents localised movement. If a water-resistant tile backer-board is used to overboard, it will virtually eliminate any moisture related movement.

1 Preparation

Verify that the extra height from the over-boarding can be accommodated and that the floor is capable of supporting the expected load. All tongue and grooved boards should be glued together securely and wedged around the edges until dry.

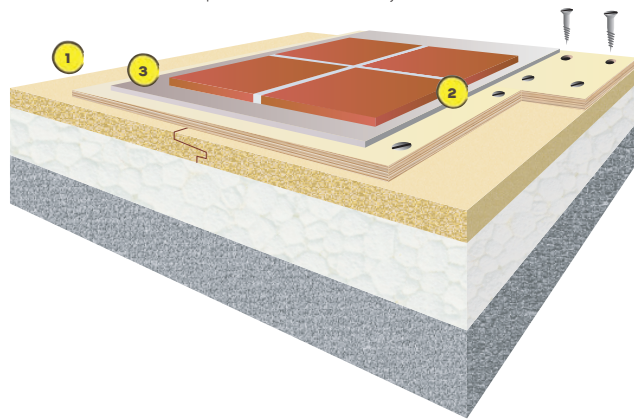
2 Fix the over-boarding

Use WBP grade plywood at least 15mm thick. Prime the back and edges of the plywood with **weber PR360**. Lay the boards so that the joints do not coincide with joints in the existing timber and leave slight gaps between boards to allow for expansion. Screw the boards at 200 to 300mm. Leave a movement joint around the perimeter for expansion.

3 Fixing the tiles

Fix the tiles into a 5mm thick solid bed of **weberset pro lite - rapid**. Leave joints at least 3mm wide for grouting and make provision for movement.

Leave the adhesive to set and then grout the tiles with **weberjoint premium** or **weberjoint wide flex**. Use **weberjoint silicone** sealant to fill the perimeter movement joints.



Priming:

weber PR360

Tiling:

weberset pro lite - rapid

Grout and silicone:

weberjoint premium

or

weberjoint wide flex

and

weberjoint silicone

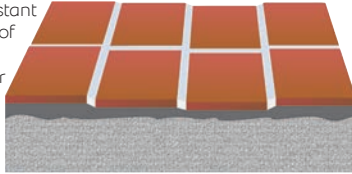
Problem 7

Tiling uneven floors

It is important, both for appearance and for safety, that the finished tile surface is flat with no tiles standing higher than the others. Usually this is easy to achieve when tiling onto a flat and level surface, but if the substrate isn't flat various problems can arise.

1. Increased difficulty in laying tiles evenly

Using a notched trowel at a constant angle enables even distribution of tile adhesive onto a substrate. If tiles are all bedded with a similar force, they should all be at a similar height with minimal unevenness.

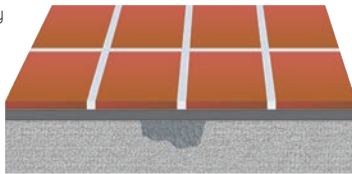


Where the substrate isn't level, this is much more difficult and it is more likely tiles will end up uneven.

2. Extra time required to fill in substrate

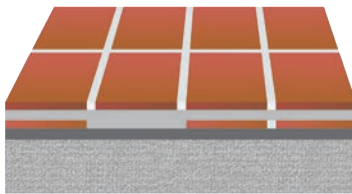
Deep holes in the substrate may result in a bed thickness that exceeds the specification for a thin bed adhesive.

Patching such holes can be time consuming if there are more than a few of them. In this instance, a thick bed tile adhesive may be more appropriate solution.



3. Some natural stones are not a constant thickness

Uncalibrated natural stones are those which have been split along natural fracture planes rather than machine cut. The result is a stone that varies in thickness, both from within each stone and from piece to piece.

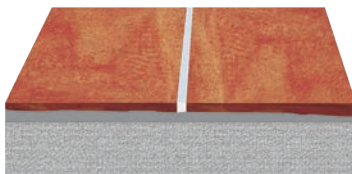


These types of stone require a thick bed tile adhesive that can be applied to a greater thickness than normal.

4. Combination of problems

In some instances – for example when tiling over a layer of existing ceramic tiles – the previously mentioned problems may be combined.

Some tiles may need to be removed because they are unsound, whilst others may have been imperfectly fixed and exhibit some variation in height.



Solution 7

Using the correct material

There are a number of possible solutions for tiling an uneven floor depending on the condition of the substrate. Deep holes must be filled first with a repair mortar. A levelling compound will give a smooth surface, but this does not help with uncalibrated stone where a thick bed adhesive must be used.

1 Use a patch repair mortar for larger holes

For holes in the substrate which are greater than 20mm in depth, a repair mortar may be the best option. Ensure that any loose or unsound material is removed and that the edges are cut square, not feathered.

Fill the holes with **webercem pyrapatch** and allow to fully cure.

2 Use a levelling compound

A levelling compound can be used to smooth out irregularities holes and gaps between existing tiles and provide a flat and level surface for tiling. Ensure that the surface is clean, dry and sound. Any existing tiles must be firmly adhered.

Prime the substrate with **weber PR360** and allow to dry. Pour **weberfloor flex** levelling compound to the required thickness. Make sure that any movement joints in the substrate are carried through the screed and tiling layer.

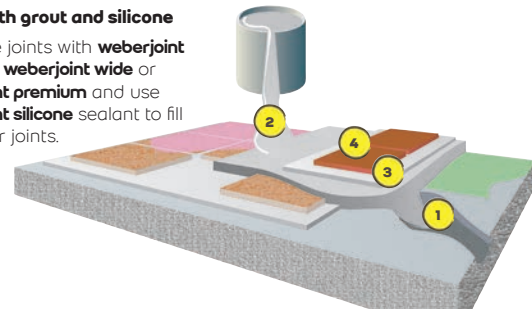
3 Choose an appropriate tile adhesive

For uncalibrated natural stone tiles you will require a thick bed tile adhesive. This can be used to even out smaller irregularities in the substrate if a levelling compound wasn't applied. Make sure all loose or unsound material is removed and fix tiles with **weber set thick bed**, which can achieve a bed thickness of up to 20mm.

If using ceramic or porcelain tiles which are uniform in shape (i.e. not uncalibrated or natural stone) fix tiles with **weber set plus** or **weber set rapid plus ECO**.

4 Finish with grout and silicone

Grout the joints with **weber joint wide flex**, **weber joint wide** or **weber joint premium** and use **weber joint silicone** sealant to fill perimeter joints.



Patch repair:

webercem pyrapatch

Tiling:

weber set thick bed

Grout and silicone:

weber joint premium

Priming:

weber PR360

or

weber set plus

or

weber joint wide flex

Levelling:

weberfloor flex

or

weber set rapid plus ECO

or

weber joint wide

and

weber joint silicone

Problem 8

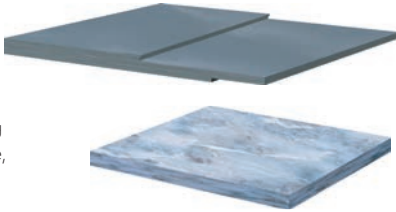
Tiling with natural stone

Tiles and stones that fall under the 'natural materials' heading vary immensely from ceramics in appearance and indeed their application requirements. Identification of the product being installed is essential to allow for the correct preparation and application.

1. Not all natural stones have the same characteristics

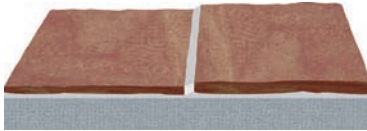
Natural stones by definition are not regulated in terms of porosity and movement.

Sandstone and limestone will be porous, granite and marble will be quite dense, slate could warp.



2. It may be difficult to achieve a flat/level surface

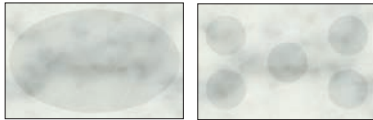
With uncalibrated tiles (i.e. tiles that do not have a constant thickness), such as some slate and terracotta, it is difficult to achieve a flat and level finish on the surface of the tiles.



They also require an adhesive that can be used at a bed thickness sufficient to cancel out the variation in the tiles.

3. Adhesives may shadow through light coloured tiles

Some light-coloured limestone/marble tiles are translucent resulting in the adhesive being seen through the tiles. If a grey adhesive is used this can make the tile appear darker in shade once installed.



A spot-fixed method of fixing should not be used by tilers as it can result in shadows being seen from the tile face where the adhesive is in contact and also increases the likelihood of point-load breakage.

4. Tiles may be susceptible to scratching

Grout can scratch soft glazed tiles (such as hand-made tiles) and the surface of soft stone (such as marble).



Solution 8

Use adhesives and grouts specifically designed for natural stones

These fixing materials include adhesives **weberset thick bed**, **weberset pro lite - rapid**, **weberset rapid SPF** or **weberset SPF** complemented by **weberjoint premium** grout.

1 Identify the tile's properties

The Weber adhesives identified on this page are designed to be used with all natural stones including very large format tiles. These adhesives are available in grey and white to allow for the properties of the stone (a grey adhesive can show through light coloured limestone and marble).

These adhesives are highly polymer modified to cope with natural movements that some stones undergo with temperature and humidity changes.

2 Achieving a suitable adhesive bed

weberset thick bed is designed to be applied at bed thickness from 3-20mm, making it ideal for taking up differences in thickness with uncalibrated or riven slate and has a standard setting time to allow for bedding difficulties. Its low slump characteristics also make it ideal when bedding heavy, calibrated stones.

A solid bed of adhesive with no voids, should be achieved when fixing. This will fully support the tile and prevent lines or rings from showing through as shadows.

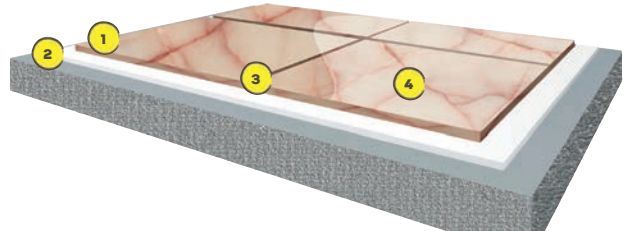
The spot-fixing method (blobs of adhesive) **should not** be used

3 Movement joints

Should be installed where tiling abuts other materials, over existing movement joints or over junctions of different backgrounds where there is an increased chance of movement such as heating installations or strong sunshine.

4 Scratching of tile face

weberjoint premium is ideal when grouting handmade tiles, polished marble and any tiles with a soft surface. The fineness of the grout reduces the risk of surface-scratching the tile.



Tiling:

weberset **thick bed**

or

weberset **SPF**

or

weberset **rapid SPF**

or

weberset **pro lite - rapid**

Grout and silicone:

weberjoint **premium**

Problem 9

Working with natural stone – protection/maintenance

Natural stone tiles can be very porous or textured and because of this require careful preparation prior to grouting to stop damage occurring. Once in service, natural stone will also need regular maintenance to keep it looking in top condition.

1. Tiles may be susceptible to staining

Modern grouts are often polymer-modified and can be very fine. Although this offers many benefits, such as better flexibility and increased strength, it can also mean they are harder to remove from tiles and more likely to stain natural stone.



'Picture framing' or 'Tram lining', as it is often referred to, is a description used when cement film has dried around the surface edge of a tile. The main causes for this are:

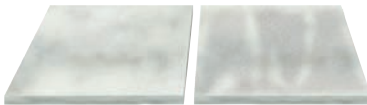
- Point grouting into the joints rather than slurry grouting the whole tile
- Leaving excess grout on the tile for longer than recommended by the manufacturer, causing a chemical etch due to the pH level of the cement
- Capillary absorption from porous stone drawing the grout into the surface
- Excessive water being used in the grout

These problems are more likely to happen if the stone is not prepared correctly with an impregnating sealant prior to grouting. Textured or porous natural stone are particularly susceptible to these problems.

If 'Picture framing' does take place, it is very difficult and expensive to remove. A specialist refurbishment company will be needed to grind the stone and in most cases it is more cost effective to replace the tiles.

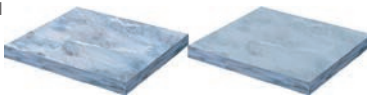
2. Grout and stone could stain when in service

When the grout and tiles have been in service, they can be prone to staining if they have not been finished correctly. The tiles should be adequately protected prior to being put into service.



3. Without maintenance, tiles can lose effectiveness

Regular use and/or a general build up of grime can mean that natural stone loses its 'wow' factor. With careful cleaning and maintenance the natural beauty of stone can be kept for many years with only the minimum of expense. The use of the wrong cleaners can lead to a soft waxy build up or, even worse, damage to the surface of the stone.



Solution 9

Use the correct techniques for protecting and increasing the life of natural stone

It is necessary to use not only the correct materials but also the correct techniques to protect, enhance and maintain natural stone. If these techniques are not used, stone could be damaged or stained which would destroy the natural beauty and effect of the stone.

1. Cleaning prior to grouting

Prior to grouting, check tiles are clean and dry. If the tiles need to be cleaned to remove dust, dirt or footprints, a pH neutral cleaner must be used. This will remove the marks without damaging the surface of the stone. If there is a small amount of adhesive residue on the tiles, a specially formulated, higher pH cleaner may be needed.

2. Protection of the stone prior to grouting

Once the stone is clean, it needs to be prepared for grouting. The surface of natural stone can be very porous and textured and if it is not prepared correctly, can be stained during the grouting process. To aid the removal of grout and to reduce the chance of staining, a suitable natural stone impregnator should be applied to the surface of the stone using a roller or sponge. This should be worked into the surface slowly to maximise effectiveness and to minimise frothing. After 4-6 hours the tiles should be dry enough to grout.

3. Grouting

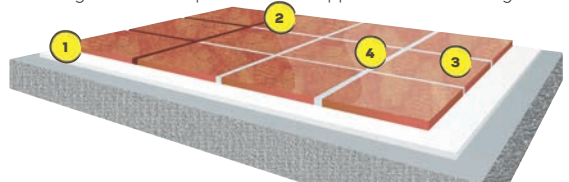
Grout should be applied liberally and worked across the whole surface of the tile, not just along the joints. This will help minimise the 'picture framing' effect that is achieved when point grouting. Excess grout should be removed from the surface of the tile within 5-10 minutes. If any excess grout is left on the tile surface, it should be removed with the help of a specially formulated, high pH cleaner.

4. Final protection of the grout and stone

Once the grout is completely dry, preferably left overnight, another coat of natural stone impregnator should be applied over the tiles and grout. This should be repeated until all the surfaces are saturated and do not absorb any more impregnator. Once the stone and grout has dried it will be resistant to staining and easy to clean.

5. Maintenance

For regular cleaning a neutral pH cleaner should be used. This will prevent long term damage to the stone, sealant and grout. A good quality cleaner will contain cleaning components and enhancing agents that will make the surface richer. Any cleaning products containing wax should not be used as they promote a build up of false layers that will spoil the floor's appearance in the long term.



Products required:

pH neutral cleaner

alkaline cleaner

natural stone impregnator

Problem 10

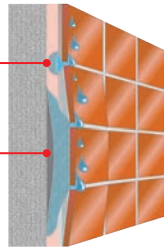
Protecting a water-sensitive substrate

Tiles are often specified for areas that are likely to be subjected to high humidity or become wet such as kitchens, bathrooms and showers. Whilst the tiles themselves are unaffected by water it is very difficult to ensure a complete seal at the grout joints. The tiling layer should not be considered to be a waterproofing layer and the use of a tanking kit is required to waterproof the substrate.

1. Some tiling substrates are affected by water

Water ingress starts to weaken plaster/plasterboard

Saturated plaster/plasterboard loses all strength, collapses and dislodges tiles

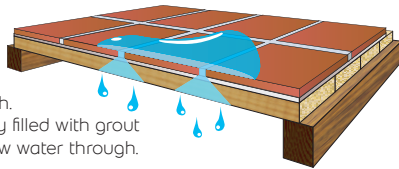


Plaster will lose nearly all of its cohesive strength if it gets wet for any extended period.

Plasterboard has a paper face which also loses strength when wet.

2. Cement-based grouts are not impervious to water

Cement-based grouts, whilst being unaffected by water once set, are porous and will therefore allow water to seep through. If the joint is not completely filled with grout then of course this will allow water through.

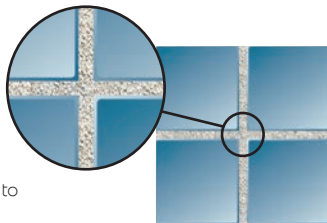


3. Cement-based grouts are vulnerable to erosion and damage over time

Normal wear and tear from traffic and cleaning will erode the grout over time.

The action of various chemicals, such as cleaning liquids can gradually weaken the grout.

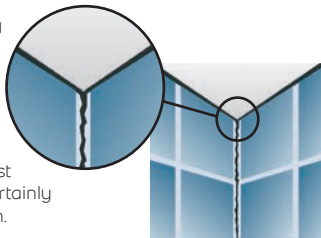
Either or both of these actions can reduce the ability of the grout joint to resist the passage of water.



4. Movement cracks

Grout joints in corners between tiled surfaces and at junctions between dissimilar backgrounds should be filled with a flexible sealant to allow some movement between surfaces.

These critical joints are often filled with the same grout used for the rest of the area. The grout will almost certainly crack in time allowing water through.



Solution 10

Using webersys protect tanking system

Water-sensitive substrates such as plywood, plaster and plasterboard can be protected from damage by any water that penetrates the tiling layer, by the application of a surface waterproofing layer, known as a tanking system. The most likely places for leaks are in internal corners and around pipes, plugholes, trim etc, so these areas must be treated with care.

1 Assess and prepare the surface

The surface must be clean, dry, sound and rigid. Existing surface layers (such as paint, tiles etc.) must be well adhered to a sound substrate.

The surface to be coated must be free of wax and grease, and any dirt or dust must be washed off and allowed to dry. Prime the substrate with **weber PR360** and allow to dry.

2 Protect critical areas with joint reinforcing tape

Apply **webersys protect** into the vertical and horizontal corners, into small cracks (less than 2mm wide) and along any joints between boards with a short-bristle brush. Apply it liberally to the base of any protruding pipes and over a square area within 100mm of the pipe. Cut a length of joint reinforcing tape to fit and bed it into the **webersys protect**. Corners should be taped in all three directions to ensure a secure seal. For sealing around pipes, cut a cross in the joint reinforcing tape with a knife.

3 Apply first & second coats of webersys protect

Apply a first coat of **webersys protect** with a roller or brush and allow to dry. Apply a second coat of **webersys protect** rolling/brushing at 90° to the direction of the first coat, to ensure that the surface is completely protected.

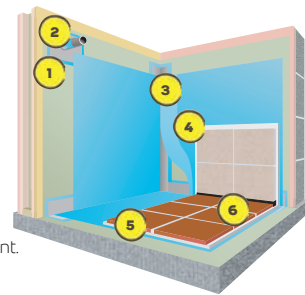
5 Fix the tiles

Leave **webersys protect** until dry, then fix tiles using a polymer-modified, cement-based adhesive such as **weberset plus**. A flexible adhesive will be needed on substrates with some movement.

6 Apply grout and silicone

Allow the adhesive to fully dry, normally at least 24 hours (less for rapid adhesives) and then fill the joints with an appropriate grout. **weberjoint premium** offers increased resistance to water, soiling and limited movement.

Fill the joints around the perimeter and in all horizontal and vertical internal corners with **weberjoint silicone** sealant to allow for movement. Allow the grout and sealant to fully cure before using the installation.



Priming:

weber PR360

Tiling:

weberset plus

Grout and silicone:

weberjoint premium
and

weberjoint silicone

Tanking:

webersys protect

Problem II

Tiling over tiles

When tackling a refurbishment project, it can be a pain to remove the existing tiles before laying new ones, adding time and effort to the project. So can you tile over tiles?

The answer is yes, but there are a few things to keep in mind when tiling on top of existing tiles. Here's our advice:



Solution II

Follow this step-by-step guide

1 Pick which tiles to use

When tiling onto walls, it's important to consider the surface behind the tiles and how much weight it will be able to carry.

The most common background for tiles is plasterboard which can hold around 32kg/m², allowing for 3.5kg of adhesive and grout, and 28.5kg of tile per square metre. Skimmed plasterboard however can only take around 20kg/m², so you'll only have an allowance of 16kg/m² for tiles after adhesive and grout.

With this in mind, consider the existing tiles – if the old tiles are quite heavy already, this will limit your choice of new ones. If you are looking to use larger, heavier tiles, you will likely need to remove the old ones first.

2 Prepare existing tiles

It's important to first check that the existing tiles are well-bonded to the substrate. If not, the new tiles could cause the old ones to come loose. If the old tiles are suitably fixed, you can now proceed to preparing them for the job. If not, unfortunately they'll need to be removed.

Before beginning, check that the tiles are level. A grinder must be used to flatten any areas which stick out from the rest of the surface. If the existing tiles have been sealed, the sealer will need to be removed for the adhesive to stick to the tile.

Finally, the existing tiles need to be cleaned thoroughly and all dust removed. This is a crucial step as the new tiles may fail to adhere if the old ones aren't suitably cleaned.

3 Fix new tiles

When the surface is ready for tiling, spread a layer of flexible adhesive such as **weberset SPF** or **weberset rapid SPF** onto the surface of the existing tiles. If the new set of tiles are particularly large or are stud-backed, an additional layer of adhesive on the back of them may be required.

If tiling onto a heated floor, a flexible tile adhesive is a must to allow for expansion and contraction of the surface beneath the tiles. A quartz tile will require an ultra-flexible S2 tile adhesive, such as **weberset pro lite – rapid**.

4 Finish with grout and sealant

Finish the job by filling the joints with a suitable tile grout such as **weberjoint premium** which is available in a range of 18 colours.

Use **weberjoint silicone** sealant (colour-matched to our full range of grout colours, as well as clear option) to seal the edges.

Tiling:

weberset **SPF**

or

weberset **rapid SPF**

or

weberset **pro lite - rapid**

Grout and silicone:

weberjoint **premium**

and

weberjoint **silicone**

Training

Weber offers a range of courses for tilers of all abilities, retail sales staff and college tutors in a relaxed, informal environment. The easy to use product range is segmented into 4 sections – Prep, Fix, Set and Joint. All course attendees will receive lunch and refreshments and safety equipment will be provided. Some of our most popular courses include:

- * Product Training – Suitable for Retail Staff
- * Waterproofing and Tanking
- * Levelling Compounds

Typical course content...

- * Introduction and Health & Safety
- * Prep – Levelling compounds practical
- * Fix – Ready-mixed wall tile adhesives
- * Set – Powder adhesives for wall and floor tiling
- * Joint – Grout and sealants
- * Typical substrates and preparation required
- * Application process

Weber has established, dedicated training facilities at their manufacturing plant in Bedfordshire and access to the Saint-Gobain Technical Academies across the country to accommodate the running of these courses.

Weber also offers a bespoke service so if the courses above do not meet your needs, they can be developed specifically for you. These courses can be arranged by request.

How to Book

☎ (0115) 945 1154

✉ technical.academy@saint-gobain.com



Health & Safety

The building industry is the most dangerous work environment bar none. Much effort has been put into improving the generally dismal historical record. As a responsible manufacturer Weber is constantly reformulating products to reduce possible risks to users and clearly states what risks are involved with all products. These risks only apply during application. Once cured, the products are non-hazardous in all respects. All materials carry Health and Safety labelling in a clear easily recognisable format as recommended by the HSE (Health & Safety Executive).

Lifting

Even when labelled as non-hazardous, a practical, common sense approach to material usage is to be recommended. Weber materials manufactured in the UK are kept to weights of 25kg and below where possible. Lifting should be carried out with the back straight and upright with the load as close to the body as possible. Do not to cut corners by attempting to carry multiple packs above 25kg.

Cement-based

The HSE has identified the small amount of soluble Chromium VI that naturally appears in grey ordinary Portland cement as the element that stimulates an allergic dermatological reaction in some people that results in 'cement burns'. Legislation now requires manufacturers to keep levels of soluble chromium VI below 2 parts per million of the total dry weight of the cement content.

White cement/sulphate-resisting cement and cement fondu all have contents below this level and are naturally compliant.

Ordinary Portland cement however needs to be treated to achieve these levels. All material supplied by Weber is either naturally compliant or has been treated to be compliant for the stated shelf life. Bags must be stored unopened, in clean dry conditions, off the ground and above 5°C. Use of treated products after the end of the declared storage period may increase the risk of an allergic reaction.

Cementitious mixes may contain relatively sharp, often angular aggregates and are therefore generally abrasive when wet. Newly applied product is also very alkaline.

Essentially non-hazardous


Our pastes, liquids and sealants are generally non-hazardous in use but may be difficult to remove when dry. The generic Health & Safety label carries common sense precautions.


Individual product-specific Safety Data Sheets are available on request or by visiting our website www.loveweber.co.uk.



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