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Saint-Gobain the world leader in building materials designs, manufactures and distributes materials and solutions which are key ingredients in the wellbeing of each of us and the future of all.

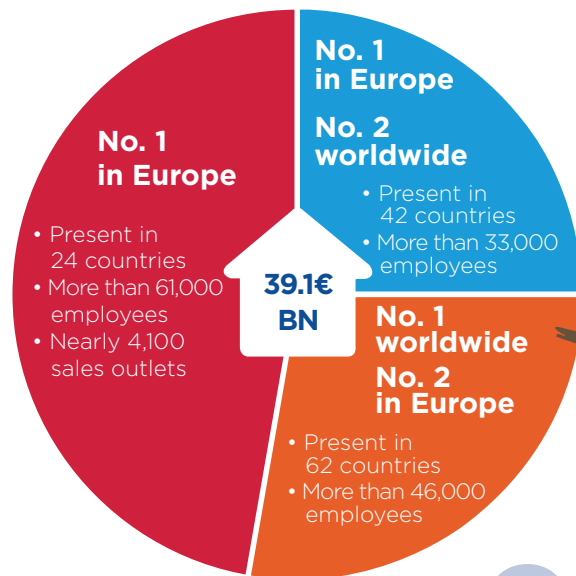
 **170 000**
employees

 **8** research
centers

 **39.1€ BN**
2016 sales

3 Activitie hubs

-  Innovative materials
-  Construction products
-  Building distribution



weber
SAINT-GOBAIN

is part of Saint-Gobain
Construction Products

www.saint-gobain.com

Saint-Gobain Weber is the world leader in industrial mortars



10,000 people

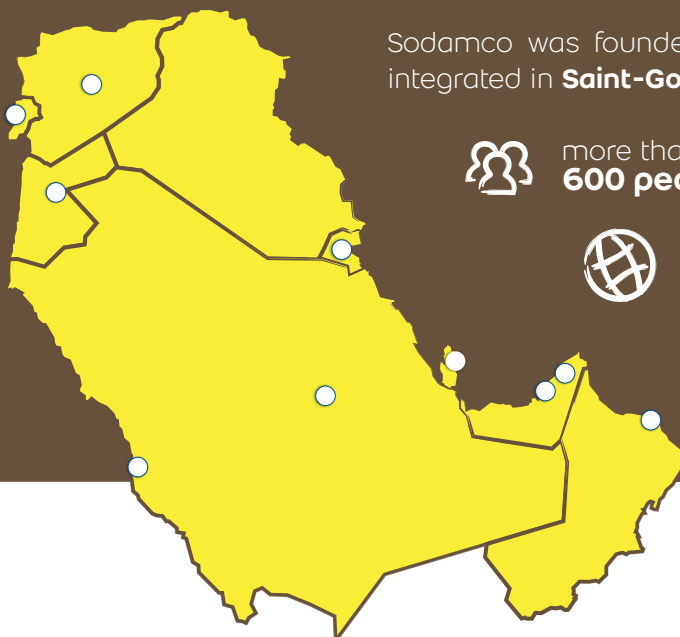


in **60 countries** worldwide



supported by almost
200 production units

Weber Middle East



Sodamco was founded in 1984 and was
integrated in **Saint-Gobain Weber** in 2012.



more than
600 people



present in
8 countries in the Middle East



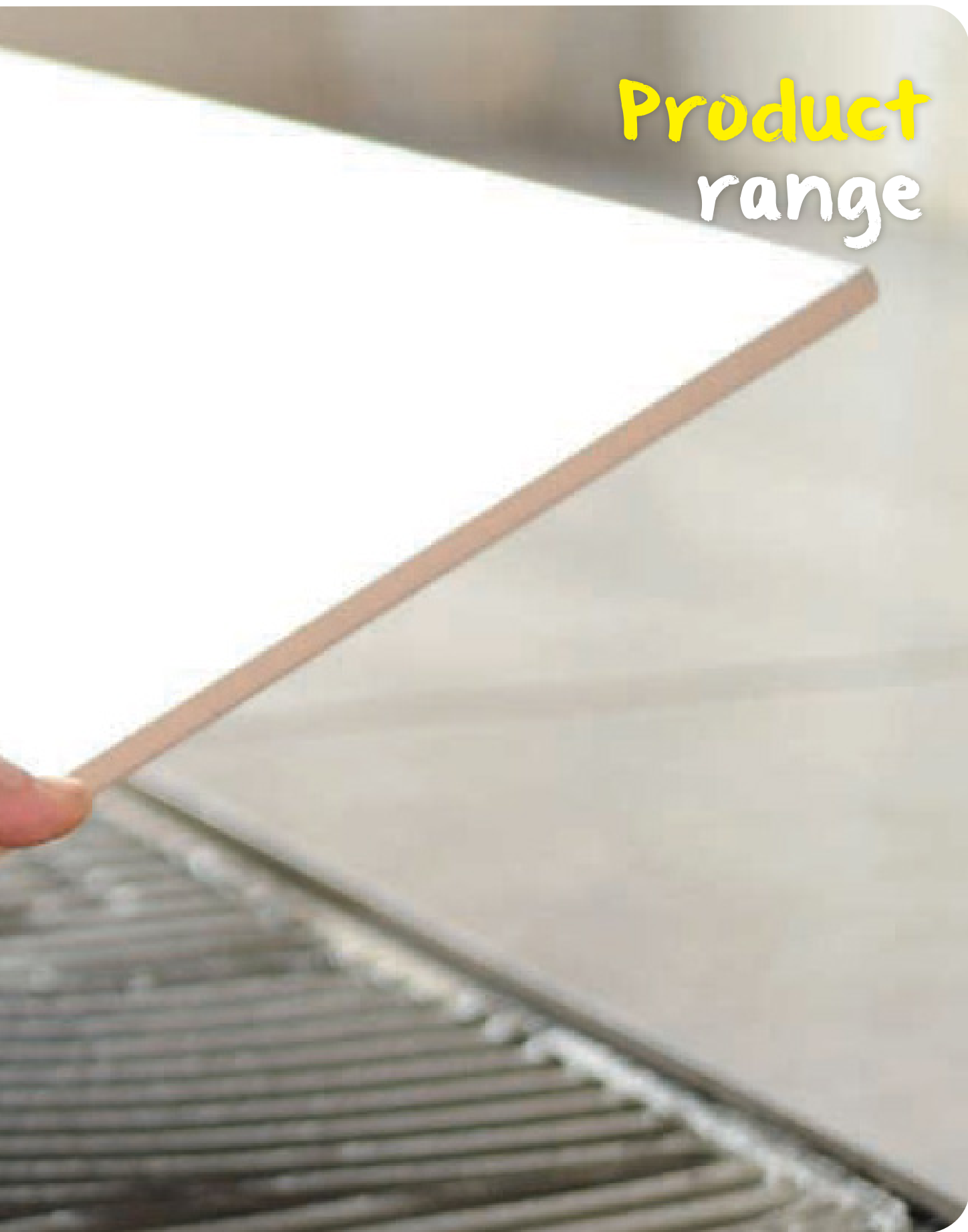
7 production units



Lebanon • UAE • Syria • Qatar • KSA • Jordan • Kuwait • Oman



Product range



Product range

Tile Adhesives



25 kg

webercol WP

Regular cement based tile adhesive (Latex Modified)



25 kg

webercol PLUS

High performance cementitious tile adhesive (Latex Modified)



25 kg

webercol F1

Fast setting high performance tile adhesive with low dust technology



25 kg

webercol Fast

Fast setting high performance tile adhesive with low dust technology



25 kg

webercol fix

Cementitious tile adhesive



25 kg

webercol flex

2 components high performance cementitious flexible tile adhesive (Latex modified)



25 kg

webercol col max

Premium quality latex modified extra white cementitious tile adhesive



25 kg

webercol floor

Thick adhesive mortar

Product range

Tile Adhesives



25 kg

weber.col bond

2 components latex modified mortar glue for tiles



25 kg

weber.col prime

Primer before tiling on difficult substrates



18 kg

weber.col epo plus

Thin bed epoxy tile adhesive



25 kg

weber.col epo

Three components epoxy tile adhesive



18 kg

weber.col paste

high performane ready to use paste tile adhesive



18 kg

weber.col floor TBS

thick tile bedding screed

Product range

Tile Grout



25 kg

weberepox easy

2 components high performance epoxy tile adhesive and tile grout



25 kg

weberjoint perfect

high performance, low stain, cementitious tile grout with hydro repell & mould stop technologies



25 kg

weberjoint deco

high performance polymer modified tile grout with non shading color technology



25 kg

weberjoint

Cementitious tile grout



25 kg

weberjoint glitter

Glittering cementitious tile grout with metallic effect

Waterproofing



25 kg

weberdry 110 FX

flexible high performance cement based waterproof coating

Product range

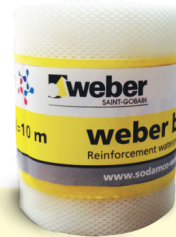
Waterproofing



25 kg

weberdry gum

Mounting and gap filling mortar for hollow blocks and bricks



25 kg

weberband

Reinforcement waterproofing stripe

Flooring



25 kg

weberfloor easy 625

high performance easy leveling pumpable screed from 20 to 100 mm thickness



25 kg

weberfloor 600 SCR

dry ready mix screed fiber reinforced



25 kg

weberfloor 535 FD

polymer modified self leveling, fast covering, high strength, flooring compound for thicknesses from 2 to 30 mm



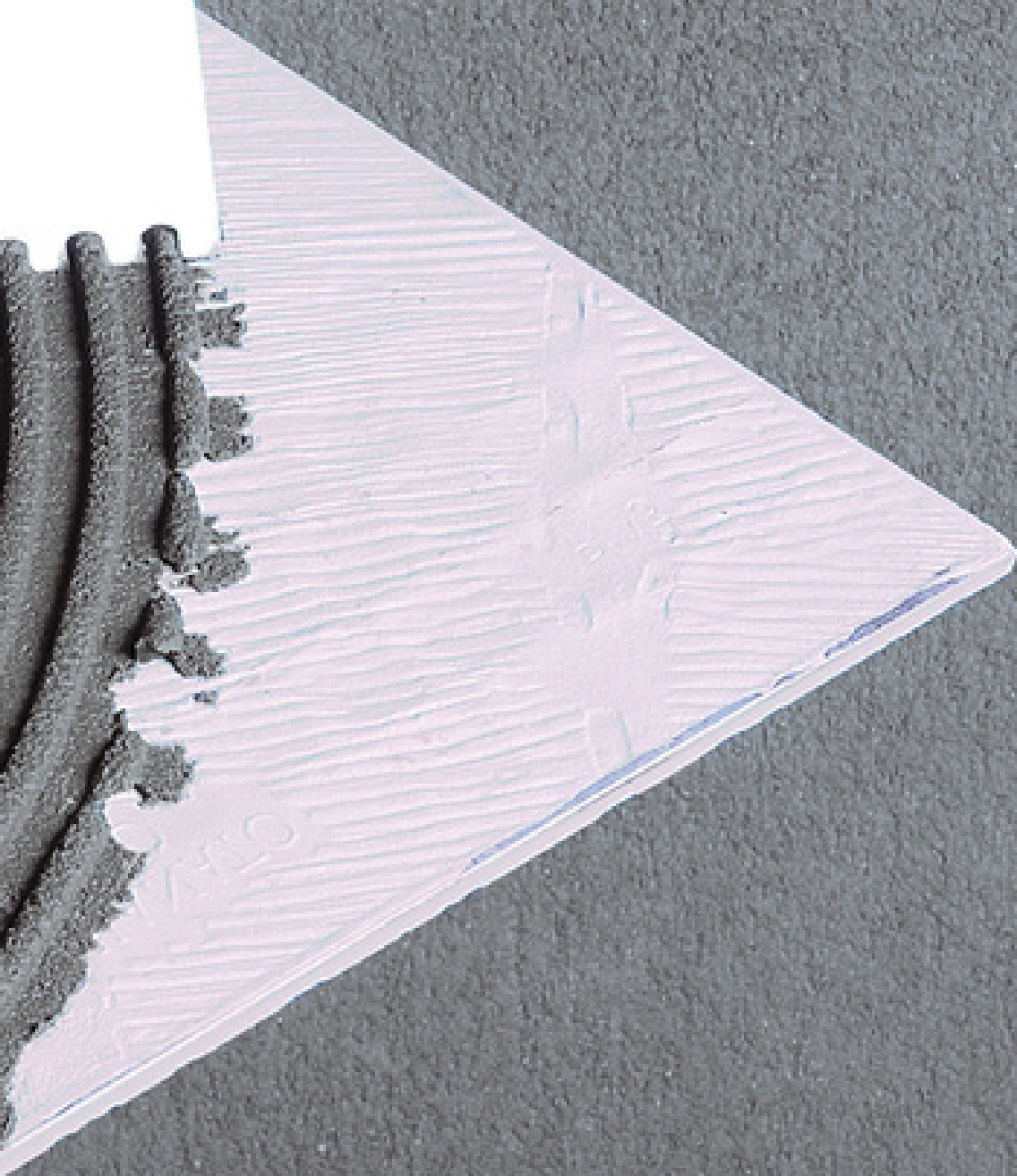
25 kg

weberfloor 514 SL

fast setting cementitious self leveling, floor for thicknesses from 2 to 30 mm



Tile fixing Professional advice



Tile fixing & Grouting method

step by step

- 1- Check that the substrate resistance can withstand the stresses that can be caused by the covering material. Large format tiles and heavy ones should not be fixed over low resistance substrates, i.e: gypsum plaster, will originate an early debonding.



- 2- The size of the notched trowel to be used during the tiling job should be chosen depending on the size of the tile to be fixed and the substrate conditions. All the back surface of the tile must be in contact with the tile adhesive and the substrate.

- 3- Depending on tile size, the adequate tile fixing technique must be chosen. Ordinary fixing can be used for tiles with dimensions of less than 900 cm², and the back buttering method (applying adhesive on both substrate and back of the tile) should be used with tiles dimension more than 900 cm², i.e.: spread the adhesive on the back of the tile with the help of a notched trowel.



- 4- When laying a tile, place it slightly away from its final position and drag it to its final place by making a slight movement with your hands. Use a rubber hammer if necessary to ensure that the adhesive strips are well smashed.

- 5- During the application, some of the fixed tiles should be lifted randomly to check if the adhesive stripes are well smashed. Check that the whole area of the back of the tile is completely filled with the tile adhesive.





- 6-** The joints must be cleaned from the excess of tile adhesive so that they can be completely grouted. This cleaning procedure will contribute to have joints completely filled with the grout mortar, ensuring a better resistance and color aspect.

- 7-** The adhesive or the grout mortar must be mixed with the correct amount of water that is mentioned on the packaging. The water used to mix the mortars should be clean. The mortars are mixed with an electrical mixer in slow motion until achieving a homogeneous paste free of lumps. The mortars should not be liquid; they should have a pasty aspect. The final coverings must be grouted after the drying of the tile adhesive.



- 8-** The grouting mortars should be applied with a rubber trowel diagonally in relation to the direction of the joints. The grouting procedure should ensure that the joints are completely filled. At the end of the application, the covering should be generally cleaned to remove excess of grout or dust that is over the tiles, avoiding that these possible excess of mortars can harden on the tiles, making the final cleaning much more difficult.

- 9-** During the cleaning phase, the use of excess water should be avoided. Otherwise the colored grout mortar could present some patches and become white at the surface. The final cleaning procedure should also be done carefully in order not to drag grout powder onto the tiles surface, or cause patches and spots on the grouts. A damp cloth or sponge should be used to clean the tiles from residual grout mortar.



Selecting your adhesives

How to select your tile adhesives

To choose the correct tile adhesive to use in a construction site, three main elements must be considered before fixing tiles:



Façade tiling



Internal tiling

◉ Area of use

The environment and general conditions under which the tile adhesive will be used are important factors to evaluate. Is it an internal or external application, on a façade or in a swimming-pool, in a light or heavy traffic area, next to the sea, in the mountains, etc...? All these conditions will affect the choice of the tile adhesive. For example, in an exterior environment, the thermal and mechanical stresses will be much higher than internal areas. As well, a special application such as a swimming pool or a façade requires an advanced tile adhesive with additional characteristics to withstand the expected movements and stresses.

◉ Substrate

The type of substrate is important to select the right tile adhesive: plaster, blocks, concrete, over a waterproofing membrane, on wood, gypsum board or tiles on tiles. Is it a porous or non-porous substrate? Is it hard, flat, a wall or a floor? All these details need to be taken into account to adapt the type of tiles and the tile adhesive.

◉ Type of tiles and dimensions

The ceramic or stone tiles should be selected according to the specifications and requirements of the site as well as the type of substrate. Ceramic tiles, porcelain tiles, mosaics, natural stones, granite, artificial stones, slates, etc... all these tiles have very different characteristics. The porosity of the tile or stone should always be checked before choosing the tile adhesive. The size and weight also play a major role in the adhesive's choice. The thickness of the tile as well: for thin tiles, a fast-setting adhesive should be selected to avoid warping/bending of the tile.

Finally, the color, especially for highly-absorbing stones, is important, as a beige or grey adhesive could cause stains to appear on the front of white stones or marble for instance.



Tiling a swimming-pool

Evaluation & Preparation

How to evaluate & prepare the substrate before tiling

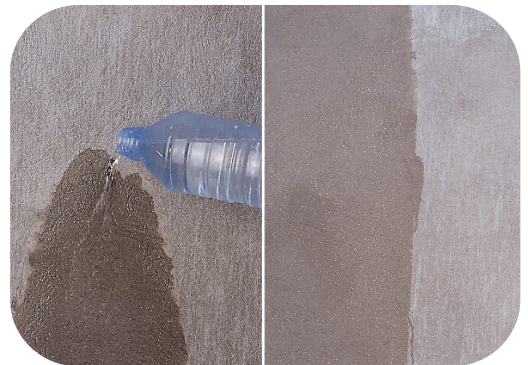
Flatness

Flatness is normally checked with a ruler of 2 m. The defects should not be greater than 5 mm along the length of the ruler. Greater substrate defects should be corrected before tiling.



Porosity

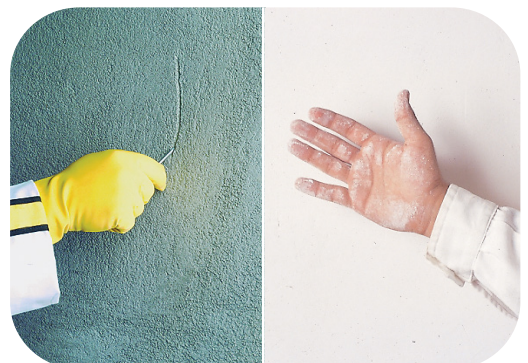
A low absorption substrate is one that takes more than one minute to absorb the water upon wetting. If the water is rapidly absorbed (in less than a minute) the substrate can be considered as highly porous and a primer must be used to reduce its porosity and increase adherence of tile adhesive.



Hardness

The hardness of the substrate should be checked at several points with the help of a nail. The substrate is considered hard if the scratches that can be caused by the nail are superficial.

If the substrate is not hard enough, it should be removed and properly cured before laying the tiles.



◉ Adhesion

When the substrate is cement or ceramic based, its strength cohesion should be checked before tiling. Check for voids and weak points using a hammer. Hollow sounds indicate that the substrate is weak and poor in adherence. In such cases, it is necessary to identify the hollow area and to work on it again for a better adherence using a new mortar or new similar tiles.

When the substrate is painted, the adhesion square test should be performed. Draw small squares 2x2 mm, with a sharp knife on a surface of 10x10 cm. If 80% of squares stay fixed to the substrate, the paint has good adhesion and new covering can be directly fixed using the recommended tile adhesive.

In some situations, like tiling on gypsum boards, it may be necessary to prime the substrate to increase adhesion.



◉ Cleanliness

The substrate must always be clean, free from dust, oils, paints or any other substance that decreases the adhesion of the tile adhesive.

In concrete substrates, the remains of demolding oils, surface water repellents products, or low resistance surface concrete should be removed. This can be done with high pressure water jet, sandblasting or brushing.



◉ Humidity

Substrate must be completely dry before being covered.

Cement based substrates shall have a moisture level not exceeding 10% before covering. Gypsum based substrates should not have moisture higher than 3%.

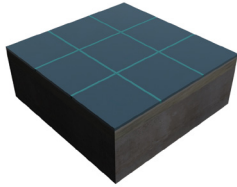
Check that there is no rising in humidity by capillary action. In such a case, specific waterproofing treatment is needed, before applying the tile adhesive over the substrate.



Types of joints

The coverings are subjected to many stresses as a result of temperature and humidity changes, as well as the loads and strains that the structure has to withstand. To avoid debonding of tiles, plan and use joints between the tiles to decrease or absorb these stresses.

When fixing ceramic or natural stone tiles, or other covering material, the use of joints should always be considered between tiles, floors and walls.

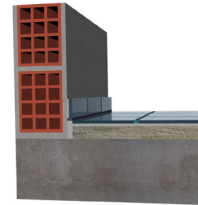


1

Tile grouts / tile joints are used in the spaces left between two tiles. The width of these joints must be calculated according to the characteristics of the covering material and the usage of the final covering.

Their major role is to:

- Absorb some of the stresses of the final covering.
- Compensate any dimensional differences between tiles.
- Facilitate the replacement of tiles if some maintenance is needed.



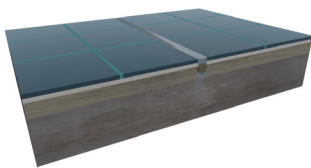
2

Perimeter or concrete joints are used where the floors and walls meet, or in the corners of walls.

Their main functions are to:

- Separate between several areas the final surface covering.
- Decrease the stresses that are generated by the movements of the substrate and the final covering itself.

When large areas are being covered, the recommendations for fraction joints and structural joints must be respected, especially in high traffic areas.

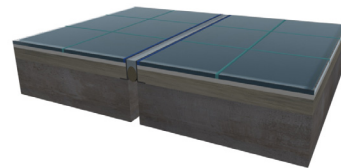


3

The fraction joints separate a large continuous tiled area in smaller areas.

The maximum tiled area recommended for floors is:

- Interior floors 32 m² or when one of the edges has a length of 8 m.
- Exterior floors 25 m² or when one of the edges exceeds 5 m length.
- Interior walls: 32 m² or when one of the edges exceeds the length of 8m.
- Exterior walls: every 3 m horizontally a joint must be made and every 5 m vertically.



4

Structural joints serve as the space between two structures planned in the building project to avoid stresses from the building movements and mechanical loads (i.e: joint that separates two apartment blocks). Such joints exist during the construction phase of the building, and must be respected when the final covering is being placed.

Evaluation & Preparation

How to achieve a suitable adhesive layer

• Role of the adhesive layer

The adhesive layer performs a number of functions:

- it sticks the tile to the surface
- it absorbs differential movements between the substrate and the tiles
- it protects the substrate from water
- it absorbs deflections
- it enables the tiler/applicator to adjust the height of each tile
- it rectifies limited errors in the substrate.

A suitable bed of adhesive is comprised between 3 mm and 10 mm maximum thickness. (A 1.5mm deep adhesive bed is recommended for mosaic tiles).

An improper adhesive layer can cause many problems in the life of the installation.

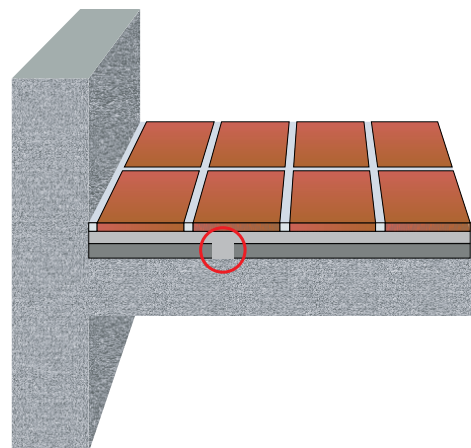
• Voids behind the tiles allow access to any water that penetrates the grout



This can cause a damp, musty smell in showers and other wet areas. Any water leaks are made worse by having channels available for water to run through. Externally, any trapped water can freeze and the associated expansion can push tiles off (debonding).

• Voids leave floors susceptible to point loads

Ceramic tiles are inherently brittle and therefore any area of the tile that is not fully supported is vulnerable when subjected to a localised load. Examples could be: a chair leg, something being dropped, or any heavy item on small feet such as a kitchen appliance.



◉ The thickness of the adhesive bed is also important



If the bed is too thin, the cement-based adhesive may dry out very quickly and not gain strength.

In the case of floors where some movement is expected, the adhesive is required to give flexibility and its ability to do this is severely limited if it is too thinly applied.

On the other hand, if the adhesive bed is too thick, the adhesive can take a few days to dry, thus causing adhesion problems. As well, cracks could appear in the adhesive layer, causing debonding of tiles.

◉ Variations in the adhesive layer may cause staining on tiles

Some tiles and natural stones (e.g. limestone and marble) will show a shadow on the face where the adhesive is in contact behind. Voids will be visible from the front of the tiles. Areas where there is no contact between the tile and the adhesive bed will not be bonded. A 50% contact will therefore result in only 50% of the overall bond strength across the tile.

*Tip: For light-colored natural stones, use an extra white adhesive like **webercol fast** or **webercol max** to avoid that stains appear on the front of the stone.*



◉ Use a suitable notched trowel

Using the appropriate trowel helps to ensure that an even layer of adhesive is achieved and leaves ribs that allow for adjustment of the tile height. For wet areas, exterior areas and all floors, it is necessary to achieve a solid bed of adhesive under the tile. The adhesive should be applied in a consistent manner using the correct type of trowel. The tile should be pressed into place with a twisting and/or sliding action to ensure a good contact with the adhesive. It is recommended that during fixing, an occasional tile is lifted back up, to verify that the desired contact is being achieved.

The choice of selecting the size of the notched trowel depends on the size of the tile and the area of the application.

For more details please consult the technical department.

Thickness of adhesive bed depending on area

Walls in exterior or interior wet areas

Notch size: 8 x 8 mm

Tooth width: 8 mm



Solid finished bed 3 mm deep

Wall tiles in interior dry areas

Notch size: 6 x 6 mm

Tooth width: 6 mm



Ribbed finished bed with at least 70% contact (3 mm deep)



Mosaic tiles

Notch size: 3 x 3 mm

Tooth width: 3 mm



Solid finished bed 1.5 mm deep

Floors

Notch size: 20 mm diameter semi-circle

Tooth width: 10 mm



Solid finished bed 3 – 6 mm deep

Large tiles

If the tiles are very large or have large studs or ribs on the back it may be necessary to back-butter the tile as well as spreading the adhesive on the substrate.



Products selector guide

Tile adhesives selector

The below given value are maximum sizes of tiles

Products Substrate	webercol fix (Carrofix)	webercol WP (Carrocolle WP)	webercol Plus (Carrocolle WP)	webercol FI (Carroflex)	webercol flex (Carroflex)	webercol putty (Carrofix PY)	webercol epo (Epotile)
Concrete	33x33 cmn 1100 cm ²	40x40 cmn 1600 cm ²	45x45 cmn 2000 cm ²	45x45 cmn 2000 cm ²	60x60 cmn 3600 cm ²	33x33 cmn 1100 cm ²	60x60 cmn 3600 cm ²
Cement plaster	33x33 cmn 1100 cm ²	45x45 cmn 2000 cm ²	45x45 cmn 2000 cm ²	45x45 cmn 2000 cm ²	60x60 cmn 3600 cm ²	33x33 cmn 1100 cm ²	60x60 cmn 3600 cm ²
Existing ceramic tiles*			33x33 cmn 1100 cm ²	33x33 cmn 1100 cm ²	45x45 cmn 2000 cm ²		
Painted Surfaces*			33x33 cmn 1100 cm ²	33x33 cmn 1100 cm ²	45x45 cmn 2000 cm ²		
MDF*					40x40 cmn 1600 cm ²		
Plywood*					40x40 cmn 1600 cm ²		
Gypsum board normal			45x45 cmn 2000 cm ²	45x45 cmn 2000 cm ²	45x45 cmn 2000 cm ²	33x33 cmn 1100 cm ²	
Gypsum board green			45x45 cmn 2000 cm ²	45x45 cmn 2000 cm ²	45x45 cmn 2000 cm ²	33x33 cmn 1100 cm ²	
Gypsum plaster on solid wall*			33x33 cmn 1100 cm ²	33x33 cmn 1100 cm ²	40x40 cmn 1600 cm ²	33x33 cmn 1100 cm ²	
Block work* (lightweight)		33x33 cmn 1100 cm ²	45x45 cmn 2000 cm ²	45x45 cmn 2000 cm ²	45x45 cmn 2000 cm ²	33x33 cmn 1100 cm ²	
Metal							60x60 cmn 3600 cm ²
Underfloor Heating					60x60 cmn 3600 cm ²		
Swimming pool							
Concrete & cement plaster			33x33 cmn 1100 cm ²	33x33 cmn 1100 cm ²	45x45 cmn 2000 cm ²		
waterproofing system weberdry 110 FX					33x33 cmn 1100 cm ²		
Coverage	3 to 7 kg/m ²					3 to 5 kg/m ²	25 to 15 kg/m ²

It is recommended for tiles more than 900 cm² to have adhesive buttered onto the tiles back as well. Use a square notched trowel of size 6 mm x 6 mm for tiles size ≤ 2000 cm² and 9 mm x 9 mm for tiles size > 2000 cm²

* Primer is required, consult company for advice

** Tile size up to 60 x 60 cm on interior floors is allowed. For tiles applied above 6m from the ground on exterior walls, **webercol flex** is required.

*** For exterior walls, tiles applied above 6m from the ground should not exceed 2000 cm².

In case of fixing mosaics in swimming-pools, **webercol flex** is highly recommended.

Products selector guide

Tile grouts selector

	weberjoint	weberjoint thick	weberjoint glitter	weberjoint deco	weberjoint perfect	weberepox easy
Joints width	up to 4 mm	up to 10 mm	up to 7 mm	up to 7 mm	up to 20 mm	up to 10 mm
Interior	✓	✓	✓ Walls only	✓	✓	✓
Exterior	—	—		✓	✓	✓
Wet areas	—	—	✓ Walls only	✓	✓	✓
Swimming pools	—	—		✓	✓	✓
Chemical resistant					✓	✓

✓ Recommended use
— Possible use

Grout consumption table

weberjoint, weberjoint perfect, weberjoint deco, weberepox easy

* Only with weberjoint perfect

Joint width Tile size (cm)	Floors (kg/m²) 10 mm thick tiles							Walls (kg/m²) 8 mm thick tiles						
	2 mm	3 mm	4 mm	5 mm	8 mm	10 mm	20* mm	2 mm	3 mm	4 mm	5 mm	8 mm	10 mm	20* mm
2.5 x 2.5	1.20	-	-	-	-	-	-	1.00	-		-	-	-	-
10 x 10	0.64	0.96	1.28	1.60	2.56	3.20	6.40	0.51	0.77	1.02	1.28	2.05	2.56	5.12
20 x 20	0.32	0.48	0.64	0.80	1.28	1.60	3.20	0.26	0.38	0.51	0.64	1.02	1.28	2.56
30 x 60	0.16	0.24	0.32	0.40	0.64	0.80	1.60	0.13	0.19	0.26	0.32	0.51	0.64	1.28
60 x 60	0.11	0.16	0.21	0.27	0.43	0.53	1.06	0.09	0.13	0.17	0.21	0.34	0.43	0.86
45 x 90	0.11	0.16	0.21	0.27	0.43	0.53	1.06	0.09	0.13	0.17	0.21	0.34	0.43	0.86

- In the case of mosaics with tile size 2.5 x 2.5 cm the tile thickness of 5 mm was used to calculate the consumption. These values only give an indication about the grout consumption. The actual product consumption will depend on the job site conditions when grouting.

- Tile grout consumption formula for **weberjoint perfect**, **weberjoint**, **weberjoint deco** and **weberepox easy**:

$$C = 0.18 \times E \times H \times [(L + W) / (L \times W)]$$

C : Consumption (kg/m²)

E : Joint Width (mm)

H : Tile Thickness (mm)

L : Tile Length (cm)

W : Tile Width (cm)

- weberjoint glitter** consumption formula:

$$C = 0.16 \times E \times H \times [(L + W) / (L \times W)]$$

Cases & Solutions



Case 1

Renovate a living-room with Low Dust, ease & comfort



Comfort for the user is our main concern. Especially in renovation works, it is important that the works be fast and clean, with minimum handling of existing furniture and minimum disturbance for the whole family. The dust is one of the main enemies for internal residential renovation works. Simply by selecting the good adhesive, you can reduce drastically the level of dust produced on the job site, and benefit of a faster and cleaner work.

Renovation job sites generate different constraints

- Unavailability of the premises for a certain time
- Dusty sites:
 - Furniture to be removed to avoid being covered with dust
 - Other rooms to be invaded by dust escaping from the bags, during handling, pouring and mixing the product
- Longer delays to clean the site after finishing the works and before setting it back to traffic
- Extra costs due to the slow pace of the works

Advantages of weber Low Dust technology for tile adhesives

With our exclusive Low Dust technology, once tried, tile applicators won't use anything else. Tilers benefit from these time-saving products which are increasing their efficiency and ensuring a more comfortable environment.

Benefits of weber Low Dust technology:

- 90 % less dust when pouring and mixing
- Cleaner working environment
- Cleaner working sites
- Make renovation easier and quicker
- Improved workability (easy to apply)
- Improving health work condition by reducing reduce quantity of dust in the warehouse/storage place

Standard
tile adhesive

Low dust
tile adhesive



قليل الغبار



LOW DUST

سريع الجفاف



FAST DRYING

Fast tile fixing

Fast-setting adhesives, like **webercol fast** and **webercol F1**, both with Low Dust technology, provide rapidity, to set the job site back in service quicker than usual.

Solution 1

Renovate a living-room with Low Dust, ease & comfort

Recommended products

Tile adhesives



webercol WP

webercol plus

webercol F1

webercol fast

Available in GCC

Available in Lebanon,
Syria, Jordan

Tile grouts



weberjoint
deco

weberjoint

*Low Dust version of **webercol WP** available only in Lebanon, UAE and Oman

Low Dust version of **webercol plus available only in Lebanon, UAE, Oman and Qatar

1- Substrate preparation

Substrate should be dry and free from dust or any traces of old materials that could impede a good adhesion with the tiles. In case of tiling over existing tiles or coating, check the adherence and repair the hollow areas or replace debonded tiles.

سهولة في المد



IMPROVED
WORKABILITY

قليل الغبار



LOW DUST

2- Method of application



Tile adhesive

Apply the Low Dust adhesive using a suitable notched trowel, adapted to the size of the stones and the flatness of the substrate. All Low Dust adhesives benefit of improved workability when spreading the adhesive.

Tile grouting

Before grouting, with **weberjoint** or **weberjoint deco** wait at least 3 hours after application of **webercol fast** or **webercol F1** (fast-setting adhesives) or at least 24 hours when using any standard setting adhesive.

Case 2

Tiling of uneven surfaces

Increased difficulty in achieving a flat finished surface

Using a notched trowel at constant angle provides an even distribution of adhesive onto the substrate. If the tiles are all bedded with a similar force they should be at the same height with only minimal unevenness.

However, if the substrate is not properly leveled, it becomes more difficult to achieve and there is more chance that some edges and dents will stand out of the final surface.



Extra time required to fill multiple holes

Localized deep holes, may result in a bed thickness that exceeds the specification for a thin bed adhesive application. Patching and leveling such holes and slumps can be time consuming if they are numerous.

Combination of problems

In some instances, when tiling over a layer of existing ceramic tiles, the above mentioned problems may be combined. As well, some tiles may need to be removed.



Some natural stones vary in thickness

Uncalibrated natural stones are stones that have been split along their natural fracture planes rather than machine cut. The result is a stone that varies in thickness within each stone and among different pieces. These types of stones require an adhesive that can be applied at a greater thickness than normal.

Solution 2

Tiling of uneven surfaces

Recommended products

Tile adhesives



Tile grouts



1- Substrate preparation

Surface to be tiled should be sound and clean, free from dust, oil, loose laitance, grease, moulds, or any contaminating material. Applicators must ensure that the tiles are clean, free from dust and contaminants that could impair adhesion. The tile adhesive must be totally cured before the tile grout application.

Tiling on walls:

If the walls are not properly aligned or of poor quality, it is necessary to reskim using **weberpremix skim coat** or **weberrep 360 FFR** to ensure better results.

Tiling on floors:

It is particularly important to ensure a solid flat surface as concrete floor on which tiling can be applied.

2- Method of application

Tile adhesive

Tiling of uneven surfaces can be done with **webercol plus**, **webercol bond** or **webercol flex**.

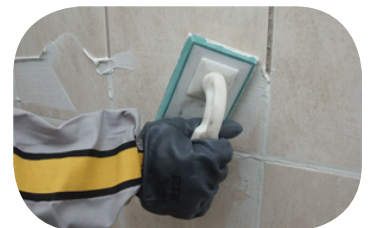
For large format tiles bigger than 900 cm², it is recommended to use the back buttering method.

For extremely large tiles bigger than 3600 cm², only a flexible tile adhesive like **webercol flex** should be used.

Also the back buttering method is recommended.

Tile grouting

It is recommended to have a minimum joint width of 2 mm around the tiles. Grouting should be done at least after 24 hours of fixing tiles, using **weberjoint perfect** or **weberjoint deco**.



Note

The faster the problems are noticed, the easier it will be to replace or fix. A misplaced tile after 24 hours or more cannot be easily removed as the adhesive would have hardened.

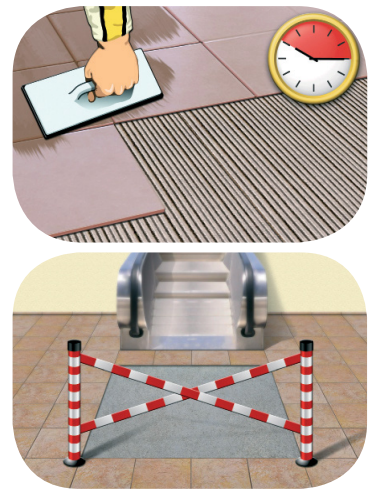
Case 3

Fast & perfect tile fixing with time constraints

Constraints on job sites frequently involve to put the site back in service quickly, especially in public areas like restaurants, airports, hospitals, etc... but also in commercial (shops, supermarkets) and residential buildings (corridors, living-rooms, etc...). The longer the works, the more it costs and disturbs the inhabitants and customers. Some fast solutions exist to reduce the time taken to fix and grout the tiles.

Timing constraints

- Corridors, stairs, halls... need to be back in service rapidly, in order not to slow the works progress.
- For small rooms : bathrooms, toilets,... the possibility to perform tile fixing and grouting on the same day allows to optimize the works organization and reuse of the facility.
- In renovation works, in inhabited houses,... the rapidness of works is a must
- In renovation of public places, like in shopping malls, restaurants, hotels, airports, etc... each hour of unavailability due to the works causes a loss in sales.



The classic solution involves many constraints



- Eliminate the old coating, break existing tiles : these works are always hard to perform, and costly.
- Sometimes it requires to renovate (or even re-do) the whole substrate, instead of doing only some small patching works.
- Furthermore, all these heavy works require a certain curing and waiting time before beginning the tiling works.
- Finally, the use of fast-setting tile adhesives can help to do the job faster than with other adhesives.

Solution 3

Fast & perfect tile fixing with time constraints

Recommended products

Tile adhesives



webercol F1

Available in GCC

or

webercol fast

Available in Lebanon,
Syria, Jordan

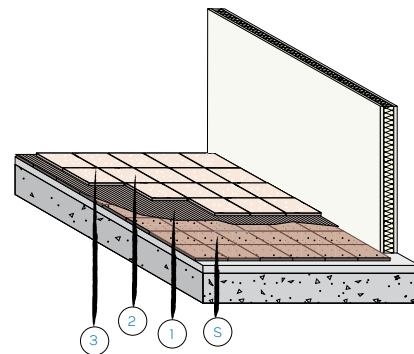
+

Tile grouts



weberjoint perfect

- S* = Old substrate, existing tiles or coating
1 = Fast-setting tile adhesive **webercol fast** or **webercol F1**
2 = New tiles
3 = Tile grout **weberjoint perfect**



1- Substrate preparation

- Check cohesion of the substrate and eliminate all parts that are not well bonded.
- With a high-pressure jet, eliminate dust and loose parts.
- Eliminate all traces of oil and cleaning products as well, rinse and let it dry.
- In case the substrate needs to be patched, apply a suitable repair mortar such as a thixotropic repair mortar **weberrep 331 TX** (until 50mm thickness in one coat).

سريع الجفاف



FAST DRYING

2- Method of application

Tile adhesive

- Use a fast-setting tile adhesive that will allow to set rapidly and perform the grouting job only 3 hours after tiling! (the usual waiting time between tiling and grouting is 24 hours).
 - For tiles over 900cm² surface (30x30cm), apply tile adhesive on both the substrate and the back of the tiles.
- Press well the tiles to ensure full adhesion of the tiles with the substrate.

Tile grouting

- Wait 3 hours after the tiles were laid on the substrate.
- We recommend **weberjoint perfect**, a high performance grout with Hydro Repell® and Mould Stop® technologies, at a width between 1.5 and 20mm.

Note

Fast-setting adhesives like **webercol fast** and **webercol F1** allow you to perform tiling and grouting jobs on the same day!

Case 4

Tiling over existing tiles & painted surfaces

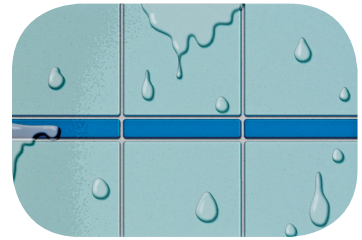
⦿ Difficulties with non-porous surfaces

Standard cement based tile adhesives rely on a mechanical adhesion to bond onto the substrate. The wet cement engages physically with small irregularities, pores on the surface and uses this to form a strong bond.

When the surface is very smooth this grip is much weaker causing tiles to debond.

Existing ceramic tiles and paints are non porous surfaces that are closed. Porcelain presents also a closed surface where the bonding effect may be difficult.

These types of surfaces are largely impervious to water, whereas standard tile adhesive won't gain strength until most of water dries out.

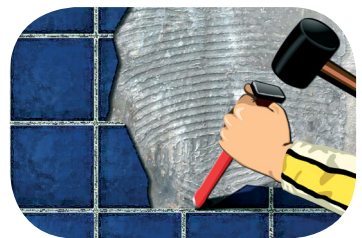


⦿ Efflorescence

The other complication from slow extended drying is when joints are grouted before the drying is complete. The water will be trapped, and it subsequently permeates through the grout carrying dissolved salts from the substrate causing efflorescence white deposit on the surface of the grout.

⦿ Advantages of tiling over existing tiles or paints

When tiling an area that is already tiled or painted, it is often necessary to invest considerable time in stripping and then repairing the substrate. It is sometimes much more straightforward to over tile the existing layer. However, this requires careful consideration and extra properties from the adhesive.



⦿ Precautions

Painted surface must be checked to ensure it is firmly adhered, with no sign of flakiness. The surface must be free from dust, dirt, grease, oil or other contaminating material. The surface should be cleaned and allowed to dry.

Existing ceramic tiles must be checked to ensure that they are firmly fixed, with no signs of any loose or drummy tiles.

Solution 4

Tiling over existing tiles & painted surfaces

Recommended products

Tile adhesives



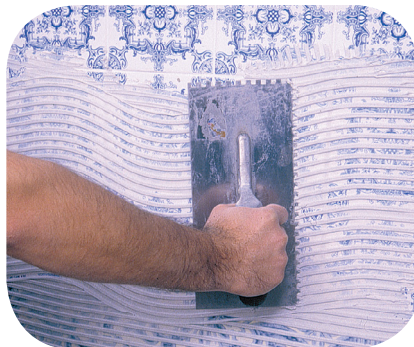
Tile grouts



1- Substrate preparation

Drummy tiles should be removed and the gap should be filled with a suitable repair mortar, like **weberrep 331 TX**.

2- Method of application



Tile adhesive

Mix and apply **webercol plus** with the suitable notched trowel.

For large tiles, only a flexible tile adhesive like **webercol flex** should be used.

Also the back-buttering method is recommended.

If the substrate is non porous (porcelain tiles, etc...), priming is highly recommended with **webercol prime**.

Tile grouting

It is recommended to have a minimum joint width of 2 mm around the tiles. Grouting should be done at least after 24 hours of fixing tiles, using **weberjoint deco** or **weberjoint perfect**.

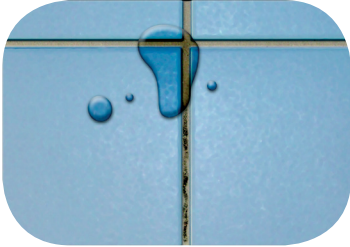
Note

In certain environments where high chemical resistance is needed, it is recommended to use **weberjoint epo** for grouting.

Case 5

Tiling in wet areas (bathrooms, etc...)

○ Sensitive points for water ingress in wet areas



Joints between tiles are potential sources of water ingress, even if they are water-resistant.

Junctions between walls and floors (wall/wall, floor/wall) are under strong constraints and often represent a source of water ingress

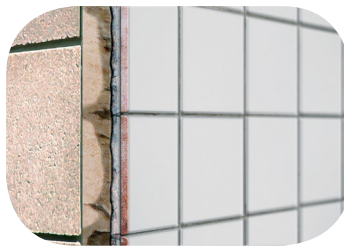


Sensitive points around pipes, taps and fittings also frequently allow water penetration

○ Consequences of water ingress in wet areas



Water leakage in walls lead to deterioration in adjoining rooms



Some substrates, particularly plasterboard and gypsum plaster, are very sensitive to humidity and have very little strength when wet. Continued water ingress will, over time, cause the substrate to disintegrate and fail.



As a final result, tiles can debond and cause the failure of the full system.

Solution 5

Tiling in wet areas (bathrooms, etc...)

Recommended products

Tile adhesives



webercol WP

webercol plus

webercol floor

webercol flex

Tile grouts



weberjoint perfect

weberjoint deco

1- Substrate preparation

- Check adhesion of existing substrate and scratch existing paint coatings.
- Replace hollow tiles with other tiles or fill the void with a suitable repair mortar, like **weberrep 331 TX** or other repair product. Clean the substrate and remove traces of dust, oil and other contaminants.
- Rinse the substrate and let it dry.

2- Waterproofing layer and tile adhesive

Tiling over sand bed:

Apply 2 layers of **weberdry 210 AFC** or **weberdry gum**, an acrylic waterproof membrane, between the concrete substrate and the sand bed. All corners should receive a band of plastic mesh or polyethylene between the 1st and 2nd layer of **weberdry 210 AFC** or **weber band** between the 1st and 2nd layer of **weberdry gum**. After 24 hours minimum, fix the tiles with **webercol floor**, a thick adhesive mortar applied above the sand bed.

webercol floor can be applied up to 40mm thickness.

Tiling over concrete/plaster:

- Cement-based system: Apply two coats of cementitious waterproofing membrane **weberdry 130 PR** with a band of polyethylene or plastic mesh embedded in the 1st coat. The application of **weberdry 110 FX** is recommended in all corners and junctions between walls and floors. Tile with **webercol plus** or **webercol flex**.
- Acrylic-based system: Apply 2 coats of acrylic waterproofing membrane **weberdry gum** with the use of **weber band** embedded in the 1st coat (in all corners and sensitive points). Tile with **webercol plus**. **webercol flex is recommended**

3- Tile grouting

It is recommended to leave a minimum joint width of 2mm around the tiles.

Grouting should be done at least 24 hours after fixing tiles, using:

- **weberjoint perfect**, a high performance grout with Hydro Repell® and Mould Stop® technologies, to avoid the creation of fungus and to reduce water absorption from the joints.
- Or **Weberjoint deco** a high performance non-shading and water resistant tile grout



Note

Fixing material must be chosen to suit the level of exposure to water.

Please refer to products technical data sheets on www.sodamco.com or ask for technical advice to know the exact scope of use.

Case 6

Floor tiling with large tiles



Technical constraints

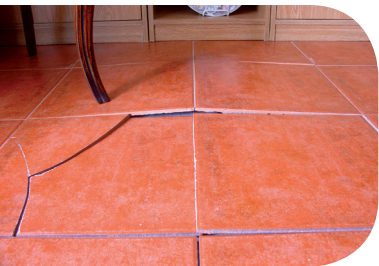
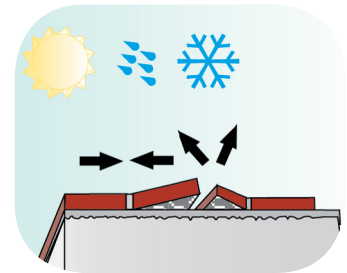
Large tiles are a must in all tiles showrooms nowadays. This trendy solution needs special application methods (2 persons to lay the tile, back-buttering method mandatory), and special care. We will treat here the case of large tiles only.

The case of thin tiles will be explained in case number 7.

Substrates move slightly with changes in temperature and moisture

When the substrate slightly expands or contracts due to changes in temperature or water content, tiles of different materials behave differently for example:

- Shrinkage in the screed as it dries
- Thermal expansion in hot weather
- Moisture induced expansions caused by entrapped water
- Thermal cycling of under-floor / under-tile warming systems



Large tiles suffer more strain levels than small tiles

The increase in strain is cumulative across the width of the tile. The further a contact point is from the center of a tile, the more adjacent points in the tile and substrate will be stretched away from each other. For a given set of circumstances, a smaller tile will be less likely to delaminate than a larger one.

Large tiles are placed under more stress by any deflection in the floor

When non rigid substrate deflects, the rigid tile cannot behave in the same manner. For a given deflection in the substrate, the chord height that the tiles try to bridge will be higher for larger tiles.

This may result in higher stresses; therefore it requires to use an adhesive with greater flexibility to prevent delaminating or breakage failures.

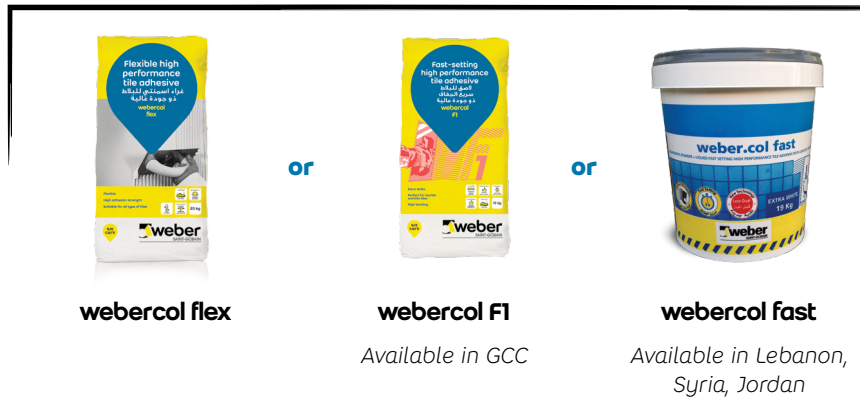


Solution 6

Floor tiling with large tiles

Recommended products

Tile adhesives



Tile grouts



1- Substrate preparation

Substrate must be clean and sound with enough resistance.
Special attention must be given to new construction prior to laying tiles.
The concrete needs to be cured for a minimum of 28 days.
Flatness of the substrate is very important. A maximum tolerance of 3 mm difference each 2 meters is allowed.

2- Method of application

Tile adhesive

It is important to select an adhesive with the proper level of flexibility to accommodate the expected strains from either differential settlement, thermal exposure, deflections or moisture variations of the substrate under load.

For large size tiles bigger than 3600 cm², use the appropriate flexible tile adhesive such as **webercol flex**, **webercol fast** or **webercol F1**. The back buttering method is mandatory to ensure a better transfer of adhesive on the back of the tile.

Using an appropriate notched trowel, apply the tile adhesive evenly on the substrate to have a uniform thickness.

Ask for technical advice in case of special applications.

Tile grouting

Grouting should be done at least 24 hours after fixing tiles, using **weberjoint perfect** (only 3 hours after using **webercol fast** or **webercol F1**).

To compensate the low quantity of joints induced by the large size of tiles, and to absorb dimensional changes, joint width should be at least 4 mm.



Note

Select a flexible adhesive and leave a 4 mm minimum joint width between tiles when fixing large tiles.

Case 7

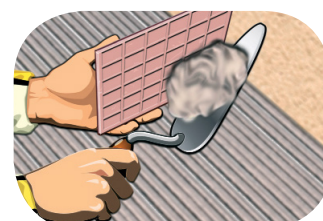
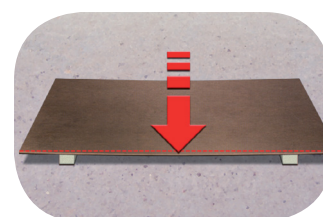
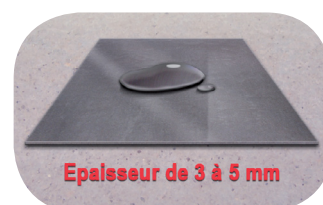
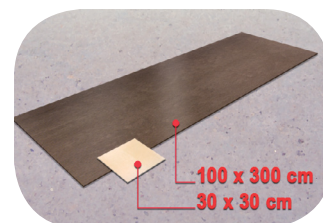
Tiling with thin tiles (3 to 5mm thickness)

A few years ago, a new trend appeared in the tiles showrooms: the thin tiles. They are made in ceramic, and their weight is two times lighter than a standard tile.

To obtain a professional and clean result, special care should be taken when handling and fixing these tiles.

Technical constraints

- Thin tiles are available in various sizes: from 30 x 30 cm to 100 x 300 cm. The solutions given in this case apply for tiles sizes up to 60 x 60 cm (maximum size of tile included in standards for tile adhesives). For tiles sizes above that, please consult our technical department.
- Thin tiles generally have a thickness between 3 and 5 mm, and a low porosity.
- If the thin tile is supplied with a mesh on the back, the mesh and mesh adhesive should not cover more than 25% of the back of the tile, otherwise it could affect the final adhesion.
- Because of their low thickness, thin tiles are also more flexible than standard tiles.
A deformable or flexible tile adhesive should be used.
- Because of their large size and their high flexibility, it is highly recommended to use a fast-setting tile adhesive, to avoid bending/warping issues that would let the edges of the tiles go up in arrow shape.
The use of a fast-setting tile adhesive will ensure that all the parts of the tile are well bonded with the substrate.
- These thin tiles cannot be applied in high-traffic areas.
Not all the thin tiles have the same shock resistance.
Therefore, some of them cannot be applied on floors or over a heated floor.
It is important to check the scope of use of the tiles given by the tile manufacturer before applying them.
- Thin tiles need a very smooth and flat substrate (old tiles for instance).
Due to their low thickness, it is not possible to correct the flatness defaults of the substrate.
As well, to avoid that the tile adhesive goes out from the joints during application, it is recommended to use a tile adhesive with a not too fluid consistency.
- The back-buttering method is mandatory to apply thin tiles:
apply tile adhesive on both the substrate and the back of the tiles, to ensure full adhesion and avoid hollow spaces under the tiles.



Solution 7

Tiling with thin tiles (3 to 5mm thickness)

Recommended products

Self-levelling compound



weberfloor easy 625 weberfloor 535 FD

Tile adhesives



webercol F1



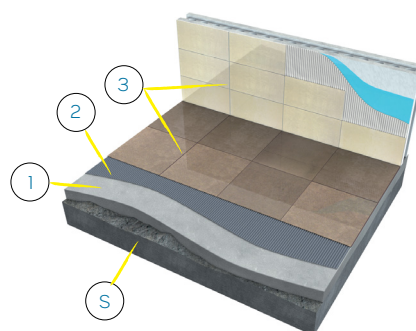
webercol fast

Tile grout



webercol perfect

- S = Substrate
 1 = Screed Floor^{top.515 PSC}
 2 = tile adhesive **webercol fast** / **webercol F1**
 3 = tile grout **weberjoint perfect**



1- Substrate preparation

To obtain a smooth flat surface, make a screed with **weberfloor easy 625** or **weberfloor 535 FD**, a premium self-levelling compound. Wait 3 days minimum before tiling.
 Check the flatness of the substrate: maximum tolerance is 3mm difference under the 2 meters ruler. Substrate must be clean and sound.

2- Method of application

Tile adhesive

Use a deformable fast-setting adhesive to fix thin tiles:

webercol fast or **webercol F1**

Use a 6 mm notched trowel for 30 x 30cm and 30 x 60 cm tiles, using the back-buttering method

Use a 9 mm notched trowel for 60 x 60 cm tiles, using the back-buttering method. For bigger sizes, consult our technical department.

Tile grouting

If **webercol fast** or **webercol F1** has been used for tiling, wait only 3 hours before grouting the tiles.

With other tile adhesives, wait at least 24 hours before grouting the joints.

The grouting will be ideally made with **weberjoint perfect**. For large tiles, to compensate the low quantity of joints that will be applied, the joints will have a width of at least 4mm.



Note

Use a fast setting adhesive to avoid bending/warping of thin tile edges.

Case 8

Tiling on gypsum plaster

◉ Gypsum plaster can only withstand relatively small/light tiles

Gypsum plaster work should be firmly adhered to its substrate and sufficiently strong to support the specified tiling.

Gypsum plaster is a relatively weak material (in comparison to wood, block work, concrete or other cementitious material). The maximum weight of tiling acceptable on a dry, well-adhered plaster background is of 20 kg/m². Plaster work should be completed at least 4 weeks prior to starting the tiling job. Even if the surface appears to be dry in less than 4 weeks, the layers underneath may not be properly dry nor fully cured.



◉ Gypsum plaster is water sensitive

Gypsum plaster is water sensitive and is therefore not an ideal substrate in wet areas such as bathrooms, showers, kitchens or wet rooms.



◉ Inconsistent quality of finishing

The finished surface of gypsum plaster can be inconsistent and varies depending on the surface conditions and the workmanship.

The surface can be very dusty or, if over trowelled, it can be very dense and shiny.



◉ Cement based adhesives react with gypsum plaster

When gypsum plaster comes into contact with cement, it forms a weak layer of ettringite that can cause the adhesive and plaster not to adhere properly. Careful preparation is needed to prevent this from happening.



Solution 8

Tiling on gypsum plaster

Recommended products

Waterproofing



weberdry gum

+

Dispersion tile adhesive



webercol paste

+

Tile grouts



weberjoint perfect

or

weberjoint deco

1- Substrate preparation

The substrate must be sound, clean and able to bare weight, free from dust, dirt, grease, oil or any contaminating materials prior to fixing tiles and prevent adhesion failure.

For waterproofing over gypsym, apply 2 coats of acrylic waterproofing membrane **weberdry gum** with the use of **weber band** embedded in the 1st coat (in all corners and sensitive points).



2- Method of application

Tile adhesive

Apply **webercol paste**, a dispersion tile adhesive, uniformly on the support and use the notched spatula to give the required thickness.

Apply the tile and press them strongly on the substrate in order to spread the product uniformly on the walls.

webercol paste can be used over gypsum substrat without any primer.

Tile grouting

It is recommended to have a minimum joint width of 2 mm around the tiles. Grouting should be done at least 24 hours after fixing tiles, using **weberjoint perfect** or **weberjoint deco**.

Apply with a rubber trowel in a diagonal direction to completely fill the joint. Remove excess material from the surface with a damp sponge. When the grout is dry, clean it with a dry cloth.

Note

Gypsum plaster loses nearly its cohesive strength when wet, so it needs to be protected in areas where it could be subject to wetting such as wet areas. Therefore a protection is required when application in wet areas.

Case 9

Tiling of balconies & terraces

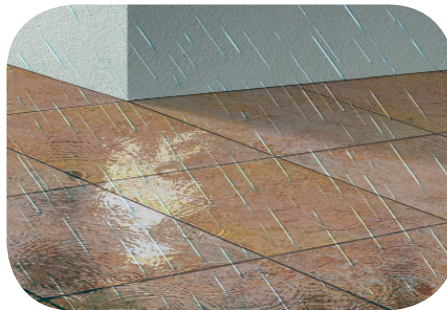
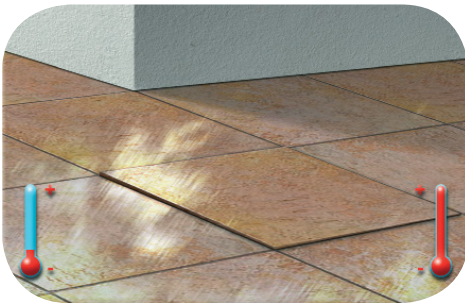
Technical constraints

Balconies should be designed with a certain slope to allow drainage. Water should not be allowed to stagnate.

The structure must be strong enough to support the expected load including tiles, adhesive, grouts and a screed if needed without undue movement.

In exterior applications such as balconies and terraces the thermal and mechanical stresses are much higher than in interior applications.

Climatic constraints



External floors are subject to climatic conditions like rain water. Check the slopes of the substrate to be minimum 1.5 cm over 1m, in order to ensure the drainage of rainwater towards external sides of the terrace.

Extreme temperature variations can also lead to strong mechanical constraints (freezing, tiles expansion due to thermal variations).

Achieve a draining mortar that will facilitate the evacuation of water.

It will help the tile adhesive to dry and avoid carbonation that could lead to white traces on the grout.

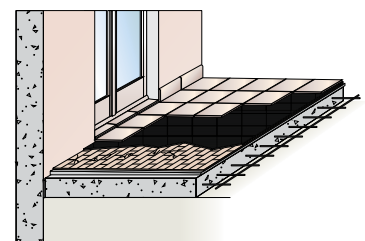
Constant water saturation under the tiles will lead to debonding of tiles.

This situation will be increased in case no slope has been included in the design.

Use a high performance and water-resistant tile adhesive, as well as a high performance tile grout which will absorb the dimensional variations of the tiles.

Precautions

The substrate must be sound, clean and able to bear weight, free from dust, dirt, grease oil or any contaminating material before tiling to prevent adhesion failure.



Solution 9

Tiling of balconies & terraces

Recommended products

Tile adhesives



weberfloor 600 SCR, or weberfloor 630 TSC, or weberfloor easy 625

+



or

+

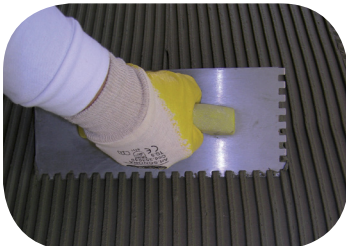


weberjoint deco

Available in GCC

1- Tiling on terraces over a sand bed

Apply 2 layers of **weberdry 210 AFC** or **weberdry gum**, an acrylic waterproof membrane, between the substrate and the sand bed. After 24 hours minimum, fix the tiles with **webercol floor**, a thick adhesive mortar applied above the sand bed.



2- Other application method or concrete substrate

Tile adhesive

webercol plus and **webercol flex** are particularly adapted to this kind of application. In case of large white tiles or stones, **webercol fast** or **webercol F1** can be used.

The back-buttering method is mandatory (adhesive applied on the substrate and on the back of the tile) to ensure full adhesion between the tiles and the substrate, and to avoid voids in the adhesive layer. Apply the tiles and press them firmly, ensuring a good adhesion between the tiles and the substrate.

Tile grouting

It is recommended to have a minimum joint width of 2 mm around the tiles.

Grouting should be done at least after 24 hours of fixing tiles. (after 3 hours only when using **webercol fast** or **webercol F1**) we recommended **weber-joint perfect**, the low water-absorption grout with Hydro Repell® and Mould Stop® technologies, should be used.

Note

The existing design of a balcony should be of a rigid concrete construction, with a slope of 1.5 mm/m towards drainage point.

Case 10

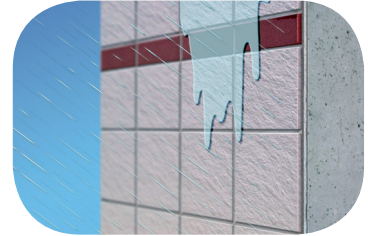
Tiling on façades

Water ingress from the joints

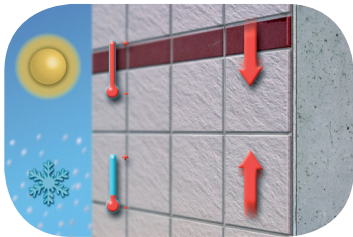
Most cement-based products including grouts and adhesives are porous to some extent. Joints between tiles are not 100% waterproof and water can enter the joint by capilarity or in case of microcracks in the joint, that could cause the tiles to debond.

These pores allow water to permeate through the grout into the adhesive and the substrate.

Exterior tiling is exposed to more aggressive conditions than interior tiling. The effect of sun, wind, rain and frost shorten the life of the covering.



Water expands on freezing

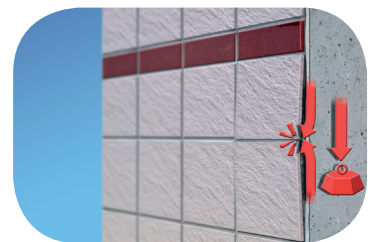


Pores in the grout will be vulnerable to frost damage. Voids behind the tile provide a possibility for water to gather and then to freeze. This can happen when the back-buttering method has not been used or if tiles have not been pressed enough in the tile adhesive. Water expands on freezing, and when this happens in a confined space, it generates enormous forces. In cold climates the cumulative effect of repetitive cycles of freeze (expansion) and thaw (contraction), cause cracks in the adhesive, which can reduce bonding dramatically.

Weathering effects (elevated temperature)

With temperature variations, different materials expand and contract at different rates. This results in stresses between the different materials, which could cause debonding and result in delamination.

Failure occurs when a ceramic tile expands and contracts with moisture and temperature at different rates than a concrete slab.



Solution 10

Tiling on façades

Recommended products

Tile adhesives



webercol flex



Tile adhesives



webercol Plus



Tile grouts



weberjoint perfect



1- Substrate preparation

Organize the works so that tile fixing will not be performed on surfaces exposed to the sun. Surface must be clean, dry, sound and free from dust, dirt, oil, grease or any contaminating material,...etc. Use a concrete repair mortar to repair holes and defects.

Brick and block work

Allow at least 6 weeks before tiling, ensuring that the wall face is sufficiently flat.

Concrete

Allow at least 7 weeks before tiling onto new concrete to ensure that it is fully dry.

Concrete smooth concrete surfaces may require additional priming with **webercol prime**.

Allowance for movement

Flexible fraction joints of 5 mm minimum should be incorporated every 3m horizontally and every 5m vertically

2- Method of application

Tile adhesive

It is important to select an adhesive with the appropriate level of flexibility to accommodate the expected strains from either differential thermal or moisture movement and / or deflection of the substrate under load.

- For façades up to 6 m high, **webercol plus** can be used, but **webercol flex** is recommended.
- Use **webercol flex** for heights up to 28 m
- Back-buttering method is mandatory to ensure full adhesion
- Press well the tiles using a rubber hammer to ensure full transfer of tile adhesive with the substrate and the tile.



or weberjoint deco

Tile grouting

It is recommended to have a minimum joint width of 4 mm around the tiles. Grouting should be done at least after 24 hours of fixing tiles, using **weberjoint perfect**.

weberjoint perfect can be applied to a width of up to 20 mm.

Remove any excess of adhesive from the joints to ensure full adhesion and filling of the gaps.



Note

It is important to use a flexible adhesive and a high performance grout with for external applications.

Case II

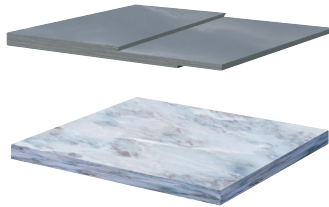
How to fix natural stones

o Different types of stones

Limestones, granite, marble, slates...Each type of natural stones has its own technical or aesthetical characteristics, and their composition can vary a lot compared to standard ceramic tiles. Fixing stones thus requires special care and application methods.

Identification of the product being installed is essential to allow for the correct preparation and application.

In this Case/Solution, we will not speak about reconstituted/artificial stones that have a different composition and need other technics and products (fast-setting adhesives,...etc)



o Not all natural stones have the same characteristics

Mechanical characteristics, hardness, cohesiveness of natural stones can differ a lot. Thus, natural stones 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.

o Adhesive may shadow through light coloured tiles

Some light-coloured natural stones require special care when fixing them.

Stains and different shades are frequent phenomenons that appear when fixing light-coloured natural stones (especially limestone/marble tiles). This can result from a bad transfer of the tile adhesive between the substrate and the natural stone. As well, if a grey adhesive is used, this can make the tile appear darker in shade once installed. (Alkalis contained in the cementitious adhesive can create a natural chemical reaction)

A spot-fixed method of application 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 it also increases the likelihood of pointload breakage.



o Tiles may be susceptible to scratching

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

Solution II

How to fix natural stones

Recommended products

Tile adhesives



Tile grouts



1- Substrate preparation

Substrate should be dry and free from dust or any traces of old materials that could impede a good adhesion with the stones. In case of tiling over existing tiles or coating, check the adherence and repair the hollow areas or replace debonded tiles. In case of very porous substrate (a water drop absorbed in less than a minute) or very smooth surface, apply the primer **webercol prime** using a brush or a roll.

2- Method of application



Tile adhesive

Apply a white adhesive **webercol flex**, **webercol max**, **webercol FI** or **webercol fast** using a suitable notched trowel, adapted to the size of the stones and the flatness of the substrate.

For large size stones and on substrates presenting defects of flatness, use the back-buttering method (tile adhesive on the substrate and on the back of the stone).

Exert a strong pressure on the stones or use a rubber hammer to remove air and ensure a good transfer.

During application, carefully eliminate all traces of adhesive on the face of the stones with a wet sponge.



Stone grouting

Before grouting, wait at least 3 hours after application of **webercol fast** or **webercol FI** (fast-setting adhesives) or at least 24 hours when using a normal setting adhesive. We recommend **weberjoint perfect** or **weberjoint deco**, at a width between 1,5 and 20 mm. The fineness of the grout particles reduces the risk of surface scratching the tile.

weberjoint perfect is the right product to grout polished marble and any tiles with a soft surface.

Protecting the stone/Tile:

For better durability it is advisable to protect the surface of the stone/tile with **weberstone Proof**, a water and oil repellent material. It helps in preventing the formation of mould and fungus on the grout".



Case 12

Tiling in swimming-pools

Technical constraints

Swimming-pools are the ultimate wet areas for tiling, due to severe usage and maintenance conditions.

In this case, the tile adhesive needs to have strong bonding and flexibility characteristics. And tile grouts need to be resistant to different kinds of attacks.



Pressure and counter-pressure

Tiles in permanent water immersion are submitted to water pressure or to counter-pressure when the pool is empty.

Thus, the tile adhesive needs to be enough water-resistant to ensure the good adhesion of tiles in all cases.

Chemical attacks

The chlorine used in pools and the use of detergents will directly impact the durability of tile grouts. The choice of an appropriated chemical resistant grout is important to build a long-lasting swimming pool. As well, certain parts of the pool are exposed to more aggressive conditions than others:

- The grout on the pool sides at the waterline may be exposed to greater erosion from water movement.
- Pool surrounds may undergo stringent and frequent cleaning regimes.
- Walls in rooms containing internal pools will be exposed to constantly high humidity and also need to have good water resistance



Solution 12

Tiling in swimming-pools

Recommended products (refer to product selector p6)

Tile adhesives

Tile grouts



1- Substrate preparation

Ensure that the surface is clean, sound, free from dust, moulds, grease and laitance using high water pressure jet. Check the cohesion of the substrate, and using a hammer eliminate hollow and loose parts. Use **weberrep 331 TX** to repair the hollowed concrete surface (repair from 5 to 50 mm) or any other repair material from Sodamco-Weber range.

2- Waterproofing layer

Apply a flexible cementitious waterproofing membrane **weberdry 110 FX** before tiling. Apply a first coat of this 2-components product (powder+resin), then embed **Plastic.Mesh F15** in the first layer, and apply a second layer of **weberdry 110 FX**. Allow to dry before beginning the tiling job.

3- Method of application

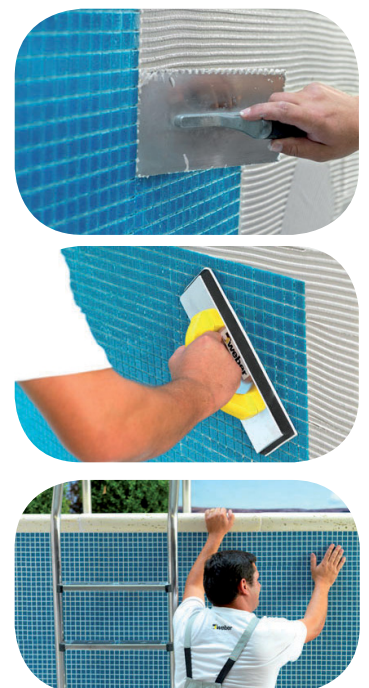
Fixing tiles/ mosaics

It is important to select an adhesive with the appropriate level of flexibility to accommodate the expected strains from either differential thermal or water movement and/or deflection of the substrate under load. Prefer **webercol flex** to fix tiles in private and public swimming pools.

webercol plus can be used to fix tiles in private swimming pools less than 80 m³ (if ceramic tiles are used, not mosaics) but **webercol flex** is recommended. Apply the tiles over the tile adhesive and press them firmly.

Tile grouting

Grouting should be done at least 24 hours after fixing tiles, using **weberjoint perfect** in private swimming pools. For public swimming pools, it is recommended to use an epoxy based grout such as **weberepox easy**.



Note

Allow at least 10 days after grouting before filling the pool.

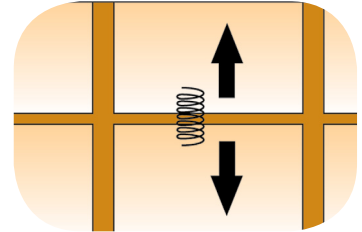
Case 13

Application of tile grouts

◉ The importance of joints

Joints are very important elements because they have technical properties such as stress absorption originated from the tiles and substrate.

There are several types of joints depending on vertical and horizontal conditions from movement joints to construction joints.



◉ Corner joints

Vertical and horizontal corner joints should be filled with an elastic sealant to absorb the stresses that can occur in such areas.

Horizontal joints at a connection with walls, door frames should be cleaned from residual or cured material left.

◉ Aesthetical problems

Aesthetical problems like cracks, white staining, residual grouts, or variation in color will occur if the grout product is not properly mixed, prepared and applied.

The consistency of the grout product is extremely important. If it is too wet when mixed, there is a good chance that the grout might fail over time.

As well, when polishing the tiles by machine, it can affect the tile grout. If the joint is not well filled with grout, it can leave some tiles without grout between them.

After polishing, it is very important to check if the grout is still sound and has enough thickness to play its role.



◉ Cleaning joints before grouting

Before grouting application, the tile adhesive should be fully cured and hard enough.

Joints should be sound and free from any excess of tile adhesive that could lead to poor joints resistance and non-homogeneous color of joint.

Solution 13

Application of tile grouts

Recommended products (refer to product selector p6)

Tile grouts



1- Substrate preparation

Ensure that the joints are clean, free from residual or excess material. Grouting should be done no less than 24 hours after tiling application with a standard setting adhesive or 3 hours after tiling with a fast setting adhesive.



2- Method of application

Mix the product and let it rest for a few minutes before starting the application.

Fill the joints using a rubber trowel. Cementitious grouts like **weberjoint perfect** or **weberjoint** or **weberjoint deco** should be applied diagonally and pressed into the joints to fill them completely.

Clean the applied areas with a damp sponge to remove the excess material when the tile grout hardening process begins.

When the grout is completely dry, clean the tiles using a dry cloth.

weberjoint perfect can be used to fill joints from 1.5 to 20 mm (CG2WA).

weberjoint deco can be used to fill joints from 1 to 7 mm (C62WA).

weberjoint can be used to fill joints from 1.5 to 4 mm width*

weberjoint thick can be used to fill joints from 4 to 10 mm.

weberjoint glitter, a decorative cementitious grout with metallic effect can be used to fill joints from 1.5 to 7 mm on internal walls.

** For joints less than 1 mm or below, consult our technical department*

3- Special areas

For exceptional performance, apply **weber epox easy**, an epoxy tile grout for high traffic areas, large public pools, factories, etc...

Note

When applying grouts, allow the application to be properly dried and cured before stepping or walking on it. It is not advisable to immediately move furniture or heavy appliances on tiles until the grouts are completely cured and hard enough to resist the expected abrasion and compression.

Case 14

Tiling and grouting in industries/heavy duty sites



Special industries

Some areas require materials with high chemical resistance; such as food and beverage industries, chemical industries, car showrooms... etc.

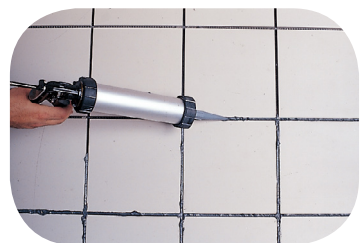


Chemical resistant grouts

When ceramic tiles are used in such applications, they are highly exposed to chemical attacks. A special chemical resistant grout is needed.

Heavy duty applications

Epoxy grouts are extensively used in heavy duty ceramic application designed to protect against severe chemical attacks, abrasion and high pressure cleaning.



Solution 14

Tiling and grouting in industries/heavy duty sites

Recommended products (refer to product selector p6)

Tile adhesives

Tile grouts



1- Substrate preparation

Ensure that the joints are clean, free from residual or excess material. Grouting should be done once the tile adhesive is completely cured. Dust will cause the epoxy bond to fail.

2- Method of application

Tile adhesive

webercol epo plus should be properly mixed using an electrical mixer with low rotation speed (<300 rpm) to obtain a homogenous mixture free of lumps. Part B (Hardener) is to be added to part A (Resin). Mix part A and part B for 1 minute to ensure the proper chemical reaction.

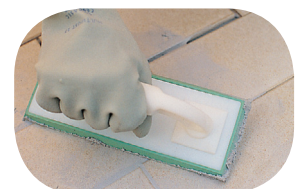
Gradually add part C (Filler) to the premixed parts A and B and continue mixing for 2 minutes until all the aggregates are completely wetted by the epoxy.

webercol epo plus can be used to tile on metal as well (consult TDS for details)

Tile grouting

Remove Part B (Hardener) from inside the part A (Resin + filler) pail and pour it into the part A. Mix well with a suitable electrical mixer at low speed (around 2 minutes) to ensure the proper chemical reaction until a smooth paste is obtained. Do not mix part A separately. Do not add water to the mixture.

weberepox easy should be applied directly into the joints. By using a rubber trowel or scraper fill the empty joints diagonally at a 45 degree angle to ensure the joints are well filled. Remove excess grout with a grout float. Smoothing the joints by using a wet sponge then clean the tiles immediately, before the product dries, by using a clean and wet sponge. **Weberepox easy** can be applied for joints width from 2 to 10mm.



Note

- Food should not be in direct contact with epoxy based material.
- Installations where a tile needs to be bonded to special surfaces as metal: use webercol epo plus
- When deterioration can be caused by chemical erosion, extreme temperatures and even bacterial attack, it is recommended to use webercol epo plus and weberepox easy.

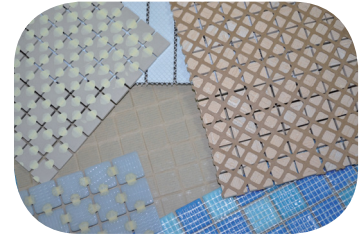
Case 15

Special tiles

○ Mosaics

Mosaic tiles are made out of a variety of materials from glass to natural stone and can be supplied in variety of shapes and sizes. The mosaics are supplied on sheets for an easy fixing and these sheets are usually supplied in two forms, face down on paper or face up on synthetic mesh. Each of these two forms requires slightly different application technique.

If the mosaics are supplied with a synthetic mesh, the mesh and mesh adhesive should not cover more than 25% of the back of the tile, otherwise it could affect the final adhesion. Always check the quality of the mesh before beginning application. Glass mosaic tiles need a really white tile adhesive, so that it does not stain the mosaics or appear in transference.

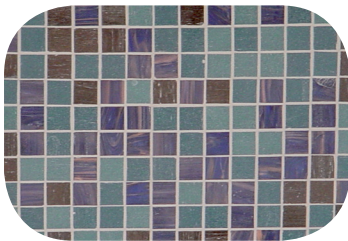


○ Metal tiles

Metal tiles come mainly in two forms, either sheet metal or metal formed around a solid background such as tile backer board or wood (MDF).

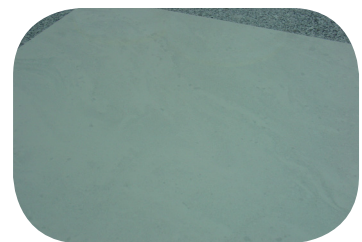
These tiles are often pressed to have a textured surface, which may cause problems when grouting.

Not to confuse with ceramic tiles with metallic effect. If the mosaic squares are not well bonded with the mesh, and that the tile adhesive does not have sufficient contact with the back of the mosaic pieces, there will be a high risk of debonding, especially if the mosaics are placed under severe constraints (swimming-pools, etc...)



○ Resin tiles

Resin tiles come in different design, shapes and sizes. Nearly any design can be made to make a feature in a house or a commercial project. Resin tiles are sensitive to moisture and can be very smooth and difficult to adhere.



Solution 15

Special tiles

Recommended products (refer to product selector p6)

Tile adhesives



Tile grouts



1- Substrate preparation

Substrate must be clean and sound with enough resistance, ensuring good adhesion between the tile and the substrate taking into consideration that the adjustment of tiles should not exceed the adhesive open time.

Special tiles such as mosaics, glass mosaics, metal tiles and resin tiles require special adhesives and preparation.

2- Method of application

Tile adhesive

Glass and resin tiles have very smooth and non-porous backs that are difficult to adhere. In this case, highly polymer-modified adhesive such as **webercol plus** or **webercol flex** or **webercol epo plus** (epoxy resin adhesive) are recommended.

Apply **webercol plus** or **webercol flex** or **webercol epo plus** evenly on the substrate. Use a suitable notched trowel to have a uniform thickness of 1.5 to 2 mm. Apply the mosaics on the substrate and press them firmly.

Tile grouting

Grouting should be done at least 24 hours after fixing tiles, using **weberjoint deco** or **weberjoint perfect** or **weberepox easy**.

Joints should be free from any dirt or excess of tile adhesive before applying the tile grout.

weberjoint glitter will give an exceptional metallic effect between tiles, especially mosaics (suitable only for internal walls).



Note

The outstanding aesthetic qualities of certain special tiles can often hide the fact that extra care will be needed when fixing. Generally, the back of special tiles can be very dense or smooth, meaning that higher grade of adhesive is needed to bond the tile sufficiently.

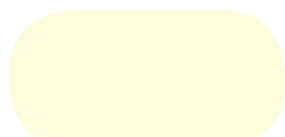
Color chart, Tools & accessories





Grout colors

weberjoint perfect, weberjoint deco & weberjoint

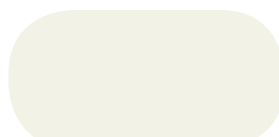


B31 - Snow White

*

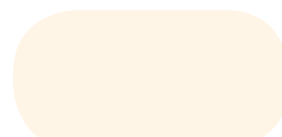


110 - Jasmine White



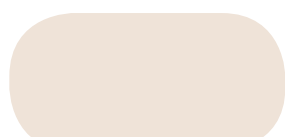
112 - Bone White

*



114 - Salmon Beige

*

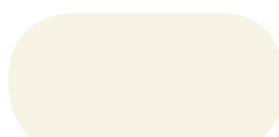


B 32 - Coral Beige

*



120 - Ivory



J 41 - Wheat

*



121 - Beige



122 - Clay



123 - Cappuccino



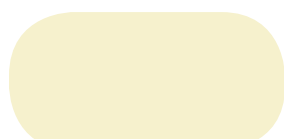
124 - Terracotta



125 - Chestnut



126 - Chocolate



130 - Pastel Yellow



131 - Camomile



132 - Mustard



J 43 - Camel

*



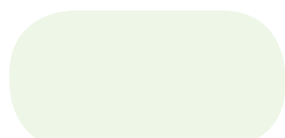
140 - Baby Pink



141 - Antique Pink



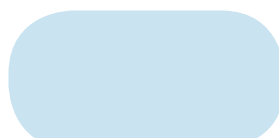
142 - Cherry



150 - Fresh Mint



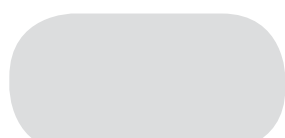
151 - Spring Leaf



160 - Baby Blue



161 - Sky Blue



170 - Light Grey



171 - Platinum



172 - Ash Grey

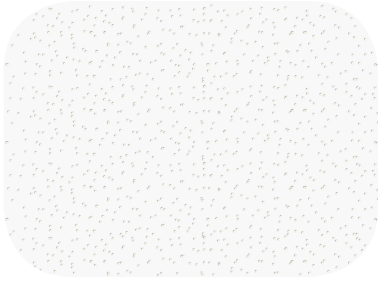


173 - Charcoal

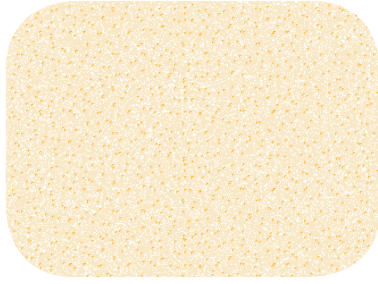


180 - Black

weberjoint glitter



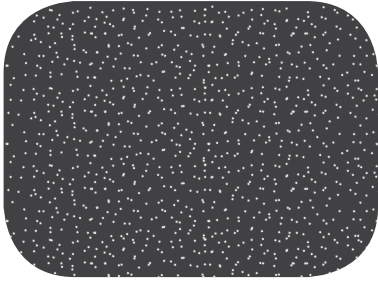
GS 110 - Icy White



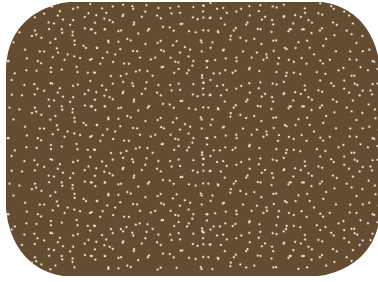
GG 120 - Shiny Gold



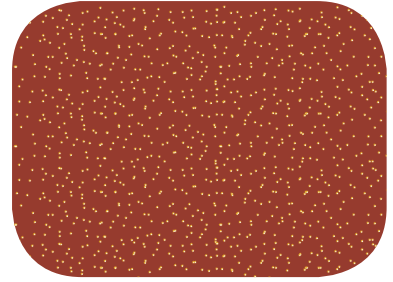
GS 170 - Metallic Silver



GS 173 - Black Pearl











GS 126 - Electric Brown



GG 124 - Redwood

Actual colors may vary from printed references, please refer to real product samples

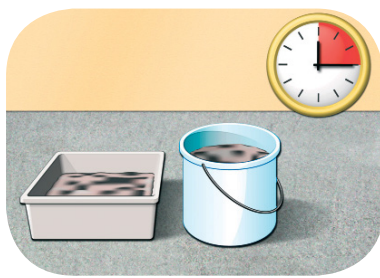
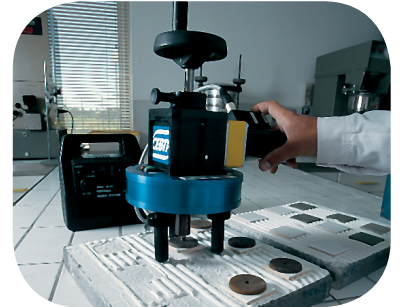
Tools for tiling

Tools	Description	Application
	Notched Trowel 6x6x6 mm	For tiles < 2000 cm²
	Notched Trowel 9x9x9 mm	For tiles > 2000 cm²
	Semi circle notched trowel 20x8 mm	For natural stone tiles > 3600 cm²
	Triangular trowel	For mosaics and paste adhesives
	Grouting rubber trowel	To grout joints
	Grouting rubber trowel special for epoxies	To grout with epoxy products
	Sponge cleaning trowel	To clean the grouted surface
	Cleaning pad	To perform the final cleaning of the grouted surface
	mixer	Type of mixer to be used with a drill to mix the tile adhesive

Tile fixing glossary

Adhesion strength

Maximum strength per unit surface area which can be measured by shear or tensile testing. Usually the adhesion strength is measured in N/mm² or MPa.

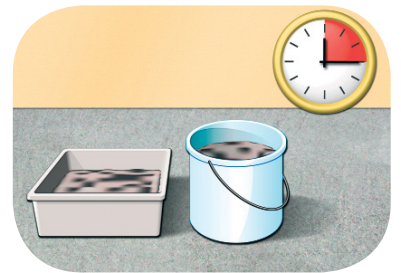


Maturing time

Interval between the time when the cementitious adhesive is mixed and the time when it is ready for use.

Pot life

Maximum time interval during which the adhesive can be used after mixing.

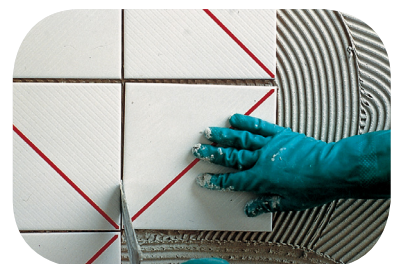


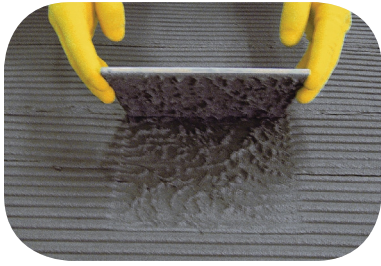
Open time

Maximum interval after application at which tiles can be embedded in the applied adhesive and meet the specified tensile adhesion strength requirement.

Adjustability of tiles

Maximum time interval after which the tile's position in the adhesive layer can be adjusted without a significant loss of adhesion strength.



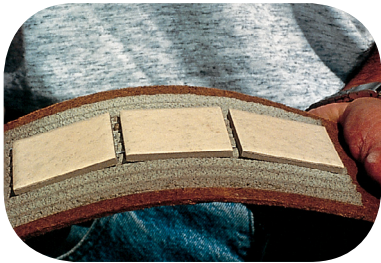
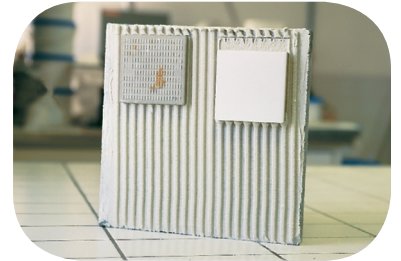


◉ Wetting capability

Ability of combed adhesive layer to wet the tile.

◉ Tile slip (sagging)

Downward movement of a tile applied to a combed adhesive layer in a vertical or inclined surface.



◉ Deformability

Capacity of hardened adhesive to be deformed by stresses between the tile and the fixing surface without damage to the installed surface.