GUIDE 2019
SWIMMING POOL BUILDING SOLUTIONS

zero MAINTENANCE POOLS
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SOLUTIONS FOR POLYESTER, PVC AND STEEL POOLS
What are we facing when building a pool?
Pools are some of the most complex structures to build: they’re exposed to water, weather changes, chemical products and structural contraction and expansion movements.

The Fixcer Solutions Guide is the answer to a double challenge: that of facing the complexity of the construction process, and our key objective: maximum resistance + zero-maintenance. As a result, we’ve obtained the 7 Fixcer keys for building zero-maintenance pools, which are in all our solutions:
**PRECISSION**
All our products are designed and manufactured for the specific purpose of building pools. These are not all-purpose products we simply apply to the world of pools; Fixcer products are exclusively for pools. You can’t go wrong when using a Fixcer product.

**EXPERIENCIE**
For more than 25 years we have built at least 1,000,000m² of pools. Every Fixcer solution has been tried and tested.

**EFFICIENCY**
This guide is designed to help you find the right solution for every stage of building or renovating a pool. We know how to improve and streamline your project. There’s a Fixcer solution for every stage.

**FLEXIBILITY**
We offer several different options, so you can adapt to the size of the budget. We have the most suitable Fixcer solution for every kind of project.

**SIMPLICITY**
Fixcer solutions are designed to streamline and improve each and every one of the construction processes. All our products are easy to use and measure. With Fixcer solutions, you gain time and save money on other resources.

**SUSTAINABILITY**
We manufacture in compliance with sustainability standards. At Fixcer we understand that we are all responsible for the wellbeing of our planet.

**SUCCESS!**
POOLS THAT ARE STURDY, WATERTIGHT, SAFE, RESISTANT, DURABLE, DEPENDABLE AND SOUND

Concrete pools are the most resistant kind on the market. Using concrete, you can build a pool to last a lifetime. Unlike other materials, concrete doesn’t deteriorate over time. A ceramic finish then makes the pool unequivocally safe and comfortable.

Types of terrain

Many pools are built without having first determined the type of terrain on which they lie. Correctly identifying this is essential for knowing whether a flat base will do or whether piling will be required. First, we must determine the necessary level of ground penetration with a penetrometer and the compaction level using a Proctor test. With this data, management will then be able to decide which structure best suits our pool.

Water table

On occasion there may be underground water to take into account. If this water follows a run-off near our structure, it can be subjected to negative pressure from the water table. Being ready for it is the only solution.

Types of concrete

Concrete can be projected or poured into formworks. The structural calculations depending on the type of terrain, the measurements of the pool, the m3 of water, etc., will determine which type of concrete to use and the viability of one construction system or another.

The concrete tank is ultimately responsible for guaranteeing the pool’s watertightness and it is therefore imperative that it complies with the existing concrete regulations (UNE-EN 206-1:2008) and that a preliminary study be performed to determine the minimum thickness of the base and walls and the type and sections of reinforcing steel to use.
THE WATER TABLE

How to prevent the negative pressure of the water table from affecting a pool

01 NON-COMPRESSIBLE GRAVEL LAYER
02 PHREATIC MEMBRANE
03 POOL’S REINFORCED CONCRETE
04 POOL’S WOODEN/STEEL FORMWORK
To avoid negative pressure, we use a so-called ‘phreatic membrane’ made using co-extrusion.

When put together, its many layers form a multi-level membrane, where each layer serves a different purpose.

The first layer tends to be a completely watertight polymer barrier.

The second layer is highly expansive, making it possible for the membrane to self-seal and self-repair, even from punctures.

The third layer is a controlled hydro-expanding layer to safely seal the overlaps.

We recommend putting the phreatic membrane in place before starting work on the pool’s reinforced concrete, in order to prevent water from leaking into the structure as a result of the terrain’s negative pressure.

<table>
<thead>
<tr>
<th>Precise Technical Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Must be waterproof to protect subterranean concrete structures in residential and industrial projects.</td>
</tr>
<tr>
<td>Must be suitable for homes, commercial centres, public works, and any project that requires continuous contact between the membrane and the structure (foundation slabs and walls, pilings, disposable copings). It must also be suitable for use in channels, tanks, purification systems, or tunnels.</td>
</tr>
<tr>
<td>Must consist of hydro-expanding layers that react to water in such a way that each layer expands differently, guaranteeing complete watertightness to negative pressure even if the membrane has been punctured.</td>
</tr>
</tbody>
</table>

- Can be applied without using a welding torch.
- Its watertightness can be tested with simple inspections.
- High mechanical resistance.
- The membranes self-repair from punctures.
- High resistance to hydraulic loads.
- Highly flexible, thus bridging cracks.
- High chemical resistance against the terrain’s natural aggressive agents.
- Suitable for salt water.
- Complete adhesion to concrete thanks to the layer of nonwoven fabric.
- Quick and easy application.
CONSTRUCTION JOINTS
How to seal the joints between dry and fresh concrete

When concrete is applied in stages over time, the joints between dry and fresh concrete can lead to the appearance of cracks. Water can leak through these cracks. Fixcer suggests using the FUGA STOP solution for preventing water leaks.
FUGA-STOP 25 x 20 mm

Modified bentonite joint
Its expansion is proportional to the amount of water it receives, thus preventing leaks. The rest of the joint then remains ready for when it comes into contact with water in the future.

MASTIC MS
MASTIC MS is the ideal adhesive for a perfect grip using FUGA-STOP 25 x 20 mm.

How it works

- FUGA-STOP 25 x 20 mm does not respond to concrete humidity during the formwork stage.
- FUGA-STOP 25 x 20 mm expands when it comes into direct contact with water on either end and acts only on the area from where the water is coming, sealing the crack.
- FUGA-STOP 25 x 20 mm offers maximum precision when compared to other joints, which only react to water once, using their full capacity and not only upon the affected area.

Application

1. Make sure at least 7cm of concrete are covering FUGA-STOP 25 x 20 mm all round.
2. Adhere FUGA-STOP 25 x 20 mm using MASTIC MS.

"FUGA-STOP 25 x 20 mm OFFERS MAXIMUM PRECISION AS IT ONLY ACTS WHERE THE LEAK IS LOCATED"
If the external sealing of a pool’s tubes hasn’t been correctly performed, water may leak from the joint between PVC and concrete. Fixcer suggests using FUGA-STOP MINI 20 x 10 mm to seal the possible source of the leak.
Should water leak from the joint between PVC and concrete, the water will come into contact with FUGA-STOP MINI 20 x 10 mm making it expand to seal the possible source of the leak.

Modified bentonite joint
Its expansion is proportional to the amount of water it receives, thus preventing leaks. The rest of the joint then remains ready for when it comes into contact with water in the future.

MASTIC MS

MASTIC MS is the ideal adhesive for a perfect grip using FUGA-STOP MINI 20 x 10 mm.

Warp FUGA-STOP MINI 20 X 10 mm like a ring around the tube.

Secure FUGA-STOP MINI 20 x 10 mm using the special adhesive MASTIC MS.

Make sure there are at least 4cm of concrete all around FUGA-STOP MINI 20 x 10 mm.

"USING FUGA-STOP MINI DELIVERS BETTER RESULTS THAN GLUING AND SANDING THE TUBE"
When it’s not possible to internally seal the PVC tubes we can seal the surface of all the joints. Fixcer suggests combining IMPRIMACION + SELLADOR S10.
SELLADOR S10

El SELLADOR S10 is an extraordinarily elastic filler (more than 800%).

It is ideal for absorbing the vibrations of the pool's water pumps.

Liquid and transparent polyurethane sticks to absorbent or semi-absorbent surfaces.

Polyurethane filler for ultra-elastic and 100% watertight sealing on all PVC-concrete joints and ABS-concrete joints. Dries quickly at about 1.5mm/24 hours (+20°C; +65%RH).

Apply SELLADOR S10 with a brush. Leave to dry at least 1 hour and not more than 4 hours.

Apply SELLADOR S10 using a designed for this purpose.

Use a hammer to open up the area around the tube in the shape of a V. The opening around the tube must be at least 25mm wide and 25mm deep.

The filler must penetrate deeply and touch the sides of the concrete.
MORTAR FOR WALLS
How to correctly apply mortar to the walls

Mortar must be safely attached to the concrete, a difficult surface as it isn’t very absorbent, and it suffers both plastic and chemical shrinkage.

FIX-REVOCO is an adhesive mortar that avoids these problems.
Adhesive mortar prepared with pure siliceous sand. Ideal for high production performance. Applied without primers or bonding bridge.

Adhesive mortar prepared with pure siliceous sand that does not contain expansive sands or clays; it can be applied without primers and without a bonding bridge directly onto the concrete.

**FIX-REVOCO PROYECTABLE**

Resists the constant presence of humidity thanks to its pure siliceous sand.

Dries in less time than most other mortars on the market.

With **FIX-REVOCO** or **FIX-REVOCO PROYECTABLE** one doesn’t have to wait 7 days / cm of thickness for it to dry. You can start laying tiles or waterproofing after only 24 hours!

It is a pre-dosed product, avoiding errors when mixing on site. Its application is like that of traditional mortars and does not require special tools.
If the mortar covering the bottom of the tank isn’t perfectly applied and stuck to the concrete base, the base may not adhere properly. RECRECEM PRE-MIX is the safest and most durable option.
Always apply a bonding bridge first with PRIMFIX + Portland in a proportion of 1:1.

Immediately apply pre-dosed mortar RECRECEM PRE-MIX previously mixed with water.

RECRECEM PRE-MIX is the ideal mortar for making level bases in pools.

Resists the constant presence of humidity thanks to its pure siliceous sand.

Dries in less time than most other mortars on the market. With RECRECEM PRE-MIX one doesn’t have to wait 7 days/cm of thickness for it to dry. You can start laying tiles or waterproofing after only 24 hours!
100% watertight waterproofing systems

**Basic system**

**THE MOST AFFORDABLE FLEXIBLE SOLUTION**

MAXIMUM WATERTIGHTNESS

For concrete pools on stable terrain where there are no vibrations.

**Practic system**

**THE SUPER FLEXIBLE OPTION**

MAXIMUM WATERTIGHTNESS

Its high flexibility makes it ideal for areas near roads or high traffic that can cause vibrations.
Find the **Perfect Solution** for your project!

**Star System**

- The most cost-effective solution!
- Resists and bridges 1.25mm cracks at -5° or 1.07mm cracks at -20°.

**HIDROELASTIC 1200**

**Xtrem System**

- Essential for pools in attics, on unstable or seismic zones, or made with concrete blocks. Resists all present or future structural movements.

**FIXAQUA FILM**
SOLUTIONS FOR CONCRETE POOLS

WATERPROOFING AND TILE LAYING SYSTEMS

A solution for every need: Basic System

THE MOST AFFORDABLE FLEXIBLE SOLUTION
MAXIMUM WATERTIGHTNESS

01 CONCRETE or GUNITE
02 MORTAR
03 1ST WATERPROOFING LAYER
04 2ND WATERPROOFING LAYER
05 CEMENT GLUE
06 MOSAIC OR CERAMIC

FIX REVOCO (p. 17)
HIDROFIX
HIDROFIX
FIXSET FLEX or FIXAGRES FLEX
HIDROFIX

Basic system

FOR CONCRETE POOLS ON STABLE TERRAIN WITH NO VIBRATIONS

SINGLE-COMPONENT cementicious mortar. Flexible and 100% watertight.

HOW IT WORKS FIX-ADVANTAGES

✓ Works with or without fibreglass mesh.
✓ Resists positive pressures of up to 3bar and negative pressures of up to 1.5bar.
✓ Bridges 0.75mm cracks at -5° C.
✓ With HIDROFIX the waterproofing doesn’t need to be reinforced with fibreglass.

HIDROFIX + FIXAGRES FLEX

SINGLE-COMPONENT cement glue. Highly adherent, for laying ceramic tiles safely and flexibly.

WATERPROOFING AND LAYING CERAMIC TILES

HIDROFIX + FIXSET FLEX

SINGLE-COMPONENT cement glue. for laying and grouting glass mosaic tiles in chlorinated pools.

WATERPROOFING AND LAYING MOSAIC TILES
WATERPROOFING AND TILE LAYING SYSTEMS

01 CONCRETE or GUNITE
02 MORTAR
03 1ST WATERPROOFING LAYER
04 2ND WATERPROOFING LAYER
05 CEMENT GLUE
06 MOSAIC OR CERAMIC

A solution for every need: Practic System

THE SUPER FLEXIBLE OPTION
MAXIMUM WATERTIGHTNESS
IMPERTOT + FIXAGRES FLEX

Single-component cement glue
Highly adhesive, for laying ceramic tiles safely and flexibly.

IMPERTOT + FIXSET FLEX

Single-component cement glue
For laying and grouting glass mosaic tiles in chlorinated pools.

FOR POOLS IN AREAS NEAR ROADS OR HIGH TRAFFIC THAT CAN CAUSE VIBRATIONS

How it works

- The two-component format avoids mistaking dosages on site as the product is completely pre-dosed.
- IMPERTOT does not need reinforcing with fibreglass mesh.
WATERPROOFING AND TILE LAYING SYSTEMS

A solution for every need: Star System

01 CONCRETE or GUNITE
02 BONDING BRIDGE
PRIMFIX + PORTLAND (p. 19)
03 MORTAR / BOTTOM
RECRECSEM PRE-MIX (p. 19)
04 MORTAR / WALLS
FIX REVOCO (p. 17)
05 1ST WATERPROOFING LAYER
HIDROELASTIC 1200
06 REINFORCEMENT STRIP
BÀNDA IMPERMEABLE 120/70
07 2ND WATERPROOFING LAYER
HIDROELASTIC 1200
08 CEMENT GLUE
TECNOCOL FLEX or TECNOJUNTA FLEX
09 MOSAIC or CERAMIC
**HIDROELASTIC 1200**

Single-component cement glue
Highly adhesive and C2TES1 flexibility, with more open time.

**HIDROELASTIC 1200 + TECNOCOL FLEX**

Single-component cement glue
Highly adhesive and flexible for laying and grouting glass mosaic tiles in chlorinated pools.

**HIDROELASTIC 1200 + TECNOJUNTA FLEX**

Single-component cement glue

THE MOST COST-EFFECTIVE SOLUTION! RESISTS AND BRIDGES 1.25MM CRACKS AT -5° OR 1.07MM CRACKS AT -20°

**HOW IT WORKS FIX-ADVANTAGES**

✔ The two-component format avoids mistaking dosages on site as the product is completely pre-dosed.

✔ Most cost-effective option on the market.
SOLUTIONS FOR CONCRETE POOLS

WATERPROOFING AND TILE LAYING SYSTEMS

A solution for every need: Xtrem System

THE MOST RESISTANT
SUPER FLEXIBLE
AND SUPER
ELASTIC SOLUTION

MAXIMUM WATERTIGHTNESS

01
02
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08
09

CONCRETE or GUNITE
BONDING BRIDGE
MORTAR / BOTTOM
MORTAR / WALLS
1ST WATERPROOFING LAYER
REINFORCEMENT STRIP
2ND WATERPROOFING LAYER
CEMENT GLUE
MOSAIC or CERAMIC

PRIMFIX + PORTLAND
(RECRECEM PRE-MIX
FIX REVOCO
FIXAQUA FILM
BÀNDA IMPERMEABLE 120/70
FIXAQUA FILM
TECNOCOL FLEX or TECNOJUNTA FLEX

01
02
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09

MAXIMUM WATERTIGHTNESS

SOLUTIONS FOR CONCRETE POOLS

WATERPROOFING AND TILE LAYING SYSTEMS

A solution for every need: Xtrem System

THE MOST RESISTANT
SUPER FLEXIBLE
AND SUPER
ELASTIC SOLUTION

MAXIMUM WATERTIGHTNESS
**FIXAQUA FILM**

Liquid polyurethane membrane for waterproofing in situ.

**ESSENTIAL FOR POOLS IN ATTICS, ON UNSTABLE OR SEISMIC ZONES, OR BUILT WITH CONCRETE BLOCKS**

**HOW IT WORKS** **FIX-ADVANTAGES**

- 100% watertight, elastic and breathable for water steam.
- Resists extreme weather conditions and ultraviolet rays.
- Good resistance to chemicals and microorganisms.
- Bridges the cracks of the support.

**FIXAQUA FILM + TECNOCOL FLEX**

Single-component cement glue

Highly adhesive and C2TES1 flexibility, with more open time.

**FIXAQUA FILM + TECNOJUNTA FLEX**

Single-component cement glue

Highly adhesive and flexible for laying and grouting glass mosaic tiles in chlorinated pools.
GUTTERS AND REGULATING TANKS
How to waterproof gutters and regulating tanks and make them 100% watertight

Waterproofing the gutters and the regulating tanks is a great challenge, as they don’t only face the constant presence of water, but also abrasion caused by water cascading down. The waterproofing must resist positive and negative pressures, abrasion and be chemically resistant. Fixcer has two solutions.
**HIDROFIX FLEXIBLE**

Single-component cementitious mortar. Flexible and 100% waterproof.

- Works with or without fibreglass mesh.
- Resists positive pressures of up to 3 bar and negative pressures of up to 1.5 bar.
- Bridges 0.75mm cracks at -5°C.
- Its single-component format makes it easy to adapt the mixing water to the weather conditions during the application process.

**IMPERTOT SUPERFLEXIBLE**

Two-component cementitious mortar. Flexible, 100% waterproof.

- Works with or without fibreglass mesh.
- Highly flexible waterproofing.
- Resist positive pressures of up to 3 bar and negative pressures of up to 1.5 bar.
- Bridges 0.75mm cracks at -5°C.
- The pre-dosed two-component format prevents dosage errors on site.

**EPOXICOLOR**

Reactive EPOXY paint.

- Liquid, pre-dosed paint.
- Available in 8 colours.
- Easy application with a short nap roller.
CONTROLLING THE WATER’S PH LEVELS

Joints are in contact with water. Joints suffer the chemical attacks of pH controllers and algaecides and even salt water corrosion. That is why it’s important to choose the right type of joint for the water to which it will be exposed.

Pool water’s correct pH (neutral) should be somewhere between 7.0 and 7.2. If the pH rises, chlorination stops working as well as it should; the water turns alkaline and fills with algae and excessive amounts of lime. If the pH drops, it turns acid, irritating the skin, eyes and mucous membranes of its users. If the acidity is notable (pH drops to 5.0 or below), the cement in the joints and the metals suffer corrosion. Acid water attacks cement mortar joints. That is why we always recommend using an acid-resistant material for your pool’s joints.

Chlorination
Chlorine is introduced to the pool’s water in gaseous, liquid, granulated or capsule form for the chlorine to disinfect the water. The pool’s pH levels must be controlled with chemical products.

Salt water chlorination
Common salt (sodium chloride) is introduced to the pool and using an electric device the sodium separates from the chlorine. This way, the chlorine disinfects the water and then bonds again with the sodium, repeating the cycle indefinitely. The concentration of salt in the water is 4-6 gr/l. The pool’s pH levels must be controlled with chemical products.

Ozonation
Ozone is introduced to the pool’s water. Ozone is a disinfecting agent that prevents the formation of harmful bioproducts such as chloramines. Ozone is produced using an ozone lamp.

When treating the water with ozone, one must complement it with an additional water treatment system. There are two possibilities: chlorine, using 5-10% of the amount used in the traditional method and controlling the pH level; or copper-silver ionisation.

Copper-silver ionisation
Silver ions are produced to act as algaecides, disinfectants and flocculants, providing the water with a very clear transparency and reducing the consumption of chlorine and chemical products. This system complements but does not replace the previously mentioned water treatment systems.

Salt water chlorination + copper-silver ionisation
The pool’s pH levels must be controlled using chemical products.

Ozonation + chlorination
The pool’s pH levels must be controlled using chemical products.

Ozonation + copper-silver ionisation
The pool’s pH levels don’t have to be controlled.
SEALING JOINTS
How to seal joints in chlorinated pools
EUROCOLOR FLEX

Single-component coloured mortar
Flexible, fungicidal, waterproof and fine.

APPLICATION

01 All joints must be washed before applying the product.

02 Mix EUROCOLOR FLEX with 27% clean water. Let sit for 2 minutes. Then mix again to obtain a uniform mass ready for application.

03 Apply EUROCOLOR FLEX to completely fill in the joints.

04 After 30 to 45 minutes, remove and clean the leftover grouting.

AVAILABLE COLOURS

00 Blanco
01 Beige
04 Marrón oscuro
05 Marrón oscuro
07 Terracota
08 Gris claro
09 Gris cemento
10 Antracita
11 Negro
12 Azul piscina
19 Roble
20 Cerezo
23 Verde oscuro
31 Siena
32 Cobalto
40 Blanco Miami
45 Marrón Medio
46 Piedra
47 Visón
48 Marrón arena
66 Rubí

HOW IT WORKS FIX-ADVANTAGES

✔ Available in 21 pre-dosed colours, ideal for grouting chlorinated pools.

✔ Very fine finish and bright colours with no efflorescence.

✔ High mechanical resistance, adherence and waterproofness.

CHLORINATED WATER

21 COLOURS
SEALING JOINTS
How to seal joints in chlorinated pools
All joints must be washed before applying the product.

Mix JUNTATEC with 23% water. Let sit for 2 minutes. Then mix again to obtain a uniform mass ready for application.

Apply JUNTATEC to completely fill in the joints.

After 30 to 45 minutes, remove and clean the leftover grouting.

Available in 5 colours.

Resistant to weak acids, making it the go-to choice for grouting chlorinated pools.

**JUNTATEC**

Single-component coloured mortar. Flexible, waterproof and fungicidal.

**How it works**

- Available in 5 colours.
- Resistant to weak acids, making it the go-to choice for grouting chlorinated pools.

**Available colours**

- **00** Blanco
- **01** Beige
- **08** Gris claro
- **09** Gris cemento
- **10** Antracita

**For**

**Chlorinated water**

Special for pools
SEALING JOINTS
How to seal joints in chlorinated or salt water chlorinated pools
CERPOXI

Three-component acid-resistant epoxy mortar for grouting.

APPLICATION

01 All joints must be washed before applying the product.
02 The product should ideally be mixed at +20º. At lower temperatures, submerge the bottles in hot water. Mix the two liquid parts and then add the powder.
03 Apply CERPOXI to completely fill in the joints.
04 Immediately remove and clean the leftover grouting.
05 Wait AT LEAST 7 days before filling the pool with water! The joint must be completely dry.

AVAILABLE COLOURS

00 Blanco
02 Beige oscuro
03 Beige natural
04 Marrón claro
08 Gris claro
09 Gris cemento
10 Antracita
11 Negro
14 Verde agua
15 Verde ácido
16 Verde giada
30 Translúcido
70 Amarillo oscuro
71 Ocre
72 Tierra
73 Rojo oscuro
74 Caramelo
75 Chocolate
76 Verde Oliva
77 Esmeralda
78 Azul celeste
79 Azul marino
82 Elondo
83 Mongoy
84 Cerezo claro
85 Arce

HOW IT WORKS

Available in 26 pre-dosed colours, ideal for grouting chlorinated and salt water chlorinated pools.

100% waterproof and watertight.

Optimal chemical resistance and high mechanical resistance.
SEALING JOINTS

How to seal joints in chlorinated or salt water chlorinated pools
Three-component acid-resistant epoxy mortar for laying tiles and grouting.

Available in 26 pre-dosed colours, ideal for grouting chlorinated and salt water chlorinated pools.

100% waterproof and watertight.

Optimal chemical resistance and high mechanical resistance.

Liquid consistency with no running whatsoever.

**HOW IT WORKS** FIX-ADVANTAGES

- All joints must be washed before applying the product.
- The product should ideally be mixed at +20º. At lower temperatures, submerge the bottles in hot water. Mix the two liquid parts and then add the powder.
- Apply PROFESSIONAL PX to completely fill in the joints.
- Immediately remove and clean the leftover grouting.
- Wait AT LEAST 7 days before filling the pool with water! The joint must be completely dry.

**APPLICATION**

**AVAILABLE COLOURS**

- Blanco
- Beige oscuro
- Beige natural
- Marrón claro
- Gris claro
- Gris cemento
- Antracita
- Negro
- Verde agua
- Verde ácido
- Verde giada
- Translúcido
- Amarillo oscuro
- Ocre
- Tierra
- Rojo oscuro
- Caramelo
- Chocolate
- Verde Oliva
- Esmeralda
- Azul celeste
- Azul marino
- Elondo
- Mongoy
- Cerezo claro
- Arce
3-IN-1: WATERPROOFING, ADHERING AND GROUTING

A triple solution for waterproofing, adhering and grouting using a single product
TRIPLE F is a single-component mortar
Mixed with the right amount of water it can:

**WATERPROOF**
✓ Complies with EN 14891 and EN 1504. Works with or without ceramic finish. Ideal for the inside of the pool, the overflow channel and the regulating tank. Apply 2 coats, 1mm each, using a total amount of 2.5kg/m². Waterproofing classified CMP.

**ADHERE**
✓ Complies with EN12004. Ideal for laying ceramic or glass mosaic tiles on the waterproofing. It is flexible and highly adherent. Classified as C2TES1.

**GROUT**
✓ Ideal for grouting in chlorinated pools. Amply fulfils the CG2WA requirements of EN 13888.

**SAVE TIME AND SPEED UP THE PROJECT**

**YOU NEED ONLY ONE STOCK**

**SIMPLE APPLICATION**

**LESS CONFUSIONS**

**LESS WASTE**

**CLEANER PRODUCT**
How to permanently lay ceramic or mosaic tiles on polyester with fibreglass

Polyester is stiff and flexible at the same time, it has low absorption, its surface is smooth, and it can even present osmosis phenomena. It’s by no means a ‘simple’ support.
100% watertight acid-resistant epoxy mortar

PROFESSIONAL PX mortar is pre-dosed and available in 26 colours.

PROFESSIONAL PX has a liquid consistency with no running whatsoever, ideal for laying and grouting glass mosaic or ceramic tiles on polyester supports.

APPLICATION

Before you begin: Preparing the support is as important as the product itself. It’s essential there be no leftover dust from the sanding. Dust is an adhesive’s number one enemy.

01 Sand down.
02 Clean with transparent acetone.
03 Vacuum.
04 Place and grout mosaic tiles.

“PROFESSIONAL PX GUARANTEES MAXIMUM ADHERENCE AND CHEMICAL RESISTANCE ON POLYESTER”

See PROFESSIONAL PX’s available colours on p. 41
Liner is a wonderful watertight and flexible waterproofing, but it doesn’t resist being exposed to UV rays or chemical products well. Protecting it with a ceramic or mosaic finish could be a challenging technical task.
ELASTICER

Hybrid epoxy-polyurethane adhesive available in three textures: normal, liquid and thick layer. Pre-dosed, ultra-elastic and adhesive product for laying ceramic tiles on PVC after previously priming with PRIMER for ELASTICER.

The epoxydic component makes ELASTICER highly adhesive and the polyurethane component makes it very elastic. That’s why it is the ideal adhesive for laying tiles on PVC or on any other kind of support that may be subjected to vibrations.

PROTECTING THE PVC LINER WITH CERAMICS EXTENDS A POOL’SUSEFUL LIFE

APPLICATION

1. Apply PRIMER ELASTICER with a cloth, rub, leave to dry.
2. Prepare the 3-component ELASTICER.
3. Mix the 2 liquids of the 3-component ELASTICER.
4. Add the 3-component’s powder to the liquid and mix.
5. Lay the ceramic or mosaic tiles using ELASTICER.
6. Grout the ceramic tiles with CERPOXI or PROFESSIONAL PX.
These pools are delivered in Porexpan blocks; the blocks are placed one next to the other to create the shape of the pool; concrete is then poured on them to provide a solid structure. The pool will have a thermally insulated ‘skin’ on the inside. Laying ceramic tiles on this delicate ‘skin’ is the challenge we face.
**FIXMAX S2**
SINGLE-COMPONENT cementitious adhesive.

**NET-MORTER 110**
HIGHLY ADHESIVE! SUPER ELASTIC!

- **How it works**
  - Highly adhesive and flexible.
  - Classified C2TES2 according to EN12004 and EN12002

- **Application**
Using FIXMAX S2 and the NET-MORTER-110 mesh, form a layer over the Porexpan obtaining an ideal surface on which to first apply the waterproofing and then the final covering.

**Complementary products**
- HIDROFIX
- FIXSET FLEX
- PROFESSIONAL PX
How to place mosaic tiles on galvanised steel

Galvanised steel pools are usually covered with a floating PVC liner. The liner is not very resistant to UV rays or the chemical attacks of the water. Its durability is estimated to be about 10 years. Once the liner has deteriorated, we can replace it or apply the ultimate FIXCER solution with a glass mosaic finish.
Flexible Textile Sheets
Covered with a specific textile material that can be covered directly with ceramic of glass mosaic tiles

**LAMINA STEEL**

**LAMINA PROOF**

**BANDA SOLAPES**

**TECNOCOL FLEX**

**EPOXICOL**

**CERPOXI PROFESSIONAL PX**

_**APPLICATION**_

1. Clean the walls with transparent acetone and remove all the dust from the concrete base.
2. Place the self-adhesive sheet LAMINA STEEL on the walls. They don’t need to overlap.
3. Place the PROOF sheet on the bottom of the pool using the cement glue TECNOCOL FLEX. Each sheet should overlap the other by about 5 cm.
4. Only on the walls and the wall-floor joint place BANDA SOLAPES on both sides of the sheets using the adhesive EPOXICOL.
5. Place the covering using TECNOCOL FLEX.
6. Grout the ceramic tiles using CERPOXI or PROFESSIONAL PX.

_**HOW IT WORKS**_

✅ The self-adhesive version goes directly onto galvanised steel panels of the pool’s walls. The non-self-adhesive version must be placed using TECNOCOL FLEX directly onto the concrete of the pool bottom.

✅ **BANDA SOLAPES** is made of the same material as the STEEL and PROOF sheets but is 12 cm wide for the overlaps between sheets. **BANDA SOLAPES** must be placed on either side of the LAMINA using the 100% watertight and acid-resistant adhesive EPOXICOL.
Solutions for Practical and Sustainable Renewals

Can a renewal make a pool look like new?

Fixcer has the right solution for every problem and type of pool.

Pools don’t always age well. The structure’s iron parts rust, swell and crack the concrete. At times they suffer unexpectedly powerful structural movements, which create cracks. Other times the joints wear and need grouting again. And if none of this has happened, we might just want to renew the ceramic finish without the hassle of getting rid of the old one. All these things and more have a Fixcer solution.
How to fix leaks through micro-cracks in the concrete

When a 60m³ pool loses up to 80 litres of water a day, we can try to seal the micro-cracks that have formed on the concrete without emptying the pool and before turning to other more aggressive measures.
NO-CRACKS

Super liquid additive. Add to the pool’s water in recirculation mode without passing it through the filter.

HOW IT WORKS FIX-ADVANTAGES

✓ It acts in 48-72 hours by reacting with the hydrated cement’s calcium hydroxide to form insoluble micro-crystals that block the micro-cracks, preventing future water loss.

APPLICATION

Its dosage is 2-3 litres for every 60 m².

CRACK WITH WATER BEFORE APPLYING NO-CRACKS

THE SAME CRACK AFTER APPLYING NO-CRACKS
How to seal cracks and fissures

A fissure is a small superficial opening that doesn’t traverse the concrete. On the other hand, a crack is also an opening, but one that affects the whole thickness of the concrete, usually being wider and completely traversing the concrete. Both fissures and cracks can be ‘living’ or ‘dead’. ‘Living’ ones might yet widen, expand or even fully traverse the concrete. ‘Dead’ ones have reached their movement limit and won’t advance further. Determining their nature is the first step for choosing the right product.
**FOR LIVING CRACKS**

**SELLADOR S10**

Polyurethane filler

Ideal for applying an ultra-elastic and 100% watertight seal on 'living' fissures or cracks.

**IMPRIMACIÓN SELLADOR S10**

Liquid and transparent polyurethane that adheres to absorbent or semi-absorbent surfaces.

**FOR DEAD OR STILL CRACKS**

**EPOXICOL**

VOC-free, acid-resistant epoxy adhesive.

Ideal for sealing ‘dead’ cracks or fissures.

**FOR FIXING LIQUID WATER CHANNELS**

**FOAM INJECTOR**

Highly liquid and EXPANSIVE reactive resins.

Ideal for sealing large channels of liquid water in a pool’s concrete.

**HOW IT WORKS FIX-ADVANTAGES**

- In all cases, begin by opening up the concrete around the fissure or crack, forming the shape of a V.
- Then prime using IMPRIMACIÓN SELLADOR S10. Lastly, seal the gap with this filler.

**HOW IT WORKS FIX-ADVANTAGES**

- In all cases, begin by opening up the concrete around the fissure or crack, forming the shape of a V. Then, without priming, fill in the whole gap using this adhesive.

**APPLICATION**

**FOAM INJECTOR** must always be used by qualified professionals with tested experience in solving this type of irregularities.

**NEW**

SEEKS OUT THE LEAK AND STOPS IT

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*See its APPLICATION on page 15.*
How to repair deteriorated concrete

The rust that forms on a pool’s structural iron is concrete’s main enemy, as in large amounts it can break the concrete and, with it, the waterproofing and adhesive, leading to certain pieces coming off entirely. Passivating the ironwork and repairing the concrete are the first steps one must take when renewing a pool.
Single-component powdered mortar for mixing with water.

Ready-to-use liquid additive: open the bottle and apply.

Single-component fibre-reinforced mortar. Their creamy thixotropic textures make them easy to apply as iron-covering mortars.

They can be applied directly onto the rust, without having to completely remove it. It then modifies the pH of the ironwork’s environment, thus passivating it.

Transparent gel-like liquid for protecting ferrous reinforcements.

They provide a compressive strength of up to 25MPa or 45MPa, respectively.

The easiest, most affordable solution for passivating iron.

R2 and R4 can be used on both walls and floors.

Usually walls require a lower compressive strength (R2) and the floors, a higher compressive strength (R4).
How to regrout an old pool

Pools covered with mosaic tiles grouted with cementitious products must be regrouted after 4 to 10 years, depending on the level of maintenance. When regrouting, the thickness of the new joint won’t be more than a few microns (parts of a millimetre), making the task require precise products.
Before grouting, make sure to mechanically empty the joints as much as possible. The deeper the joint, the better grip the borating will have.

02 FIXCOLOR 0/4 is not liquid; it must be kneaded with an electric mixer with the right proportion of LATEFIX.

03 Remember it is necessary to wait at least 7 days for the borating material to set. We can then fill the pool with water. Doing so too soon would weaken the joint material, making it lose consistency and resistance.

**HOW IT WORKS**

- FIXCOLOR is a cement-based mortar, made with finely granulated aggregates and special additives.
- Hardens without creating cracks.
- The pigments that give it colour provide the joint with a lasting decorative effect.
- Highly adhesive.
- Highly waterproof.
- Excellent workability with a rubber trowel.
- High mechanical resistance.

**APPLICATION**

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
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</table>

**FIXCOLOR 0/4**

- Super white cement, chemically strengthened, highly adhesive and liquid.

**LATEFIX**

All of the final properties of FIXCOLOR 0/4 can be improved when combining it with LATEFIX latex and completely replacing the water of the mixture.

**FIXCER SOLUTION**

**CHLORINATED POOLS**
CHANGING THE CERAMICS
How to lay new ceramic tiles without first removing the old ones

Renewing a pool doesn’t have to entail the hassle of getting rid of the old ceramics. Fixcer offers the fastest, cheapest and easiest renewals possible.
Using the FIXMAX S2 and the NET-MORTER-110 mesh, form a layer upon the old ceramics, resulting in an ideal surface for waterproofing and then laying the new ceramic or glass mosaic tiles.

Apply FIXMAX S2 on the clean old ceramic tiles with a flat trowel.

Place the NET-MORTER 110 mesh on the layer of FIXMAX S2.

Immediately cover the fibreglass mesh with more FIXMAX S2.

SECOND WATERPROOFING only if necessary for the pool. If not, skip to step 5.

After 24 hours, apply 2 layers of HIDROELASTIC and let each layer dry for about 4 hours before applying the next.

After 24-36 hours, lay the tiles using the cement glue TECNOCOL FLEX or the mosaic tiles using the cement glue TECNOJUNTA FLEX.

Lastly, grout using the acid-resistant epoxy mortar CERPOXI or PROFESSIONAL PX.
POOL DECKS
KEYS TO THEIR CORRECT CONSTRUCTION

 THESE ARE THE

5

ESSENTIAL GOALS
WHEN BUILDING A
POOL DECK

1. STRUCTURAL STABILITY
2. POWER SAVING
3. SAFETY
4. WATERTIGHTNESS
5. DURABILITY

TO ACHIEVE THEM WE MUST PERFORM THE FOLLOWING STEPS

✓ Build the base slab
✓ Seal the moving joints
✓ Apply mortar for the slopes
✓ Waterproof and lay the decks
✓ Grout the anti-slip ceramic tiles
✓ Seal the expansion joints
To successfully build the concrete base slab and the mortar we recommend complying with all the precepts of regulation EN138.002.

More specifically, we recommend strictly complying with the following four points:

6.1.1.1 Stability of concrete bases
6.1.1.2 Stability of slabs
6.2 Functions of the intermediate layers of the ceramic system
7.8 Design and location of the moving joints
The location of the moving joints must comply with point 7.8. of the regulation EN138.002, which in turn mentions the specifications of point 3.4. “Thermal action” from DB-SE-AE of the Technical Building Code (Structural Safety and Actions in Building). Given the importance of this section, the location and type of joints used must be defined in the executive project.

Depending on the projected type of joint (expansion, contraction, structural, watertight, perimetric, etc.) Fixcer provides a wide and varied range of proposals for building and sealing it.

Generally, we must avoid transmitting tensions between the pool’s tank and the deck’s concrete slab. These tensions could cause damage to the ceramic covering. The pool’s tank must be structurally independent from the deck’s concrete slab. To make these two structures independent from one another, we construct a moving joint between them.

When the joint is structural and watertight, we must allow it to be able to move, while also preventing liquid water leaking through it, which could affect our gym, parking, etc. Fixcer provides a solution for guaranteed success.
**FIXCER SOLUTION**

**FIX-TAPE 170 mm**

- Ultra-elastic strip (600%).

**EPOXICOL**

- Epoxy, acid-resistant VOC-free adhesive that joins the FIX-TAPE 170 mm to the concrete, monolithically (unbreakable).

**HOW IT WORKS FIX-ADVANTAGES**

- Watertight, elastomeric, thermoplastic, easy to connect with hot air at +270°C and chemically resistant. Place on both sides of the joint using the epoxy adhesive EPOXICOL.

- Makes the structural expansion joint 100% watertight thanks to the waterproof nature of the FIX-TAPE.

- Can be sealed with heat.

- Its extraordinary elasticity (600%) absorbs all differential movements between the different concrete structures, guaranteeing the expansion joint remain watertight.

**APPLICATION**

1. Place the strip in the centre of joint and create a bellow we’ll fill with SELLALASTIC FOAM.
2. Place masking tape 2cm away from the strip. Then apply a 1-2mm-thick layer of EPOXICOL that reaches the masking tape.
3. Adhere the FIX-TAPE and immediately place more EPOXICOL on top and on both sides.
4. Remove the self-adhesive strip from both sides and remove the masking tape.

A completed moving joint with guaranteed watertightness.
The final thickness of the mortar will depend on the calculation of the slopes and whether there is a need to thermally insulate the base slab with extruded polystyrene. The construction management team will determine these thicknesses.
PAVIFORT

Screed made with pure siliceous sands with compensated granulometry. With PAVIFORT you can make a paving of any thickness.

PRIMFIX

Adhesive latex for making bonding bridges before applying PAVIFORT. Must be mixed in a proportion of 1:1 with Portland.

HOW IT WORKS  FIX-ADVANTAGES

✓ PAVIFORT is a mortar with a high compressive and bending strength.

✓ Its composition makes building pool decks a lot quicker and safer.

✓ Dries very quickly. Can be walked on in a few hours. In 24h, the ceramic tiles can be laid.

✓ PAVIFORT is a mortar that doesn’t shrink, meaning that it doesn’t create tensions and cracks like conventional mortars.

APPLICATION

For final thicknesses of less than 4cm, first apply the bonding bridge PRIMFIX + Portland.

For final thicknesses of more than 4cm, apply a layer of polyethylene to act as a vapour barrier and decoupling layer.
WATERPROOFING AND LAYING TILES ON THE DECKS

How to waterproof and guarantee watertightness

SUPER FAST SOLUTION!
COMPLETELY WATERTIGHT
HIDROFACIL

Elastic waterproof paint, ready-to-use, single-component and quick-drying.

WATERPROOFING READY IN 4 HOURS

HOW IT WORKS

✓ Ready-to-use waterproofing: open the can and paint using a roller, a brush or an airless.
✓ Ideal for terraces, pool decks, shower plates and humid areas.
✓ 100% watertight and single-component.
✓ Quick drying.
✓ Must always be protected with a final covering of ceramic tiles.

For standard placements lay the ceramic tiles using TECNOFLEX.

HIDROFACIL + TECNOFLEX

WATERPROOFING AND LAYING CERAMIC TILES

Urgently for very urgent placement lay the ceramic tiles using FIXARAPID FLEX.

HIDROFACIL + FIXARAPID FLEX

WATERPROOFING AND LAYING CERAMIC TILES URGENTLY

FIXCER SOLUTION

FIXCER SOLUTION

FIXCER SOLUTION
GROUTING THE ANTI-SLIP CERAMIC TILES

The last and most important step: how to grout a pool deck

The pool deck’s joints have an aesthetic function; they must be stable with UV rays; have solid colours; be water-repellent and technically be resistant to heavy pedestrian traffic; BE FLEXIBLE; and must have a high resistance to abrasion to resist the rain outdoors. Choosing the right type of joint for the conditions it will be subjected to is essential for our pool project to succeed.
**EUROCOLOR FLEX**

- Coloured mortar, water-repellent and fungicidal.
- Single-component.
- Available in 21 colours. Pre-dosed.
- Ideal for grouting 0-to-16mm-wide joints on pool decks.

**JUNTATEC**

- Coloured mortar, water-repellent, fungicidal and resistant against weak acid attacks.
- Single-component.
- Available in 5 colours.
- Resistant against weak acid attacks.
- Ideal for grouting 0-to-16mm-wide joints on pool decks.

**CERPOXI**

- Acid-resistant epoxy mortar, 100% watertight.
- 100% watertight.
- Pre-dosed.
- Available in 25 colours.
- Resistant against acid attacks.
- Ideal for grouting 0-to-10mm-wide joints on pool decks.

**PROFESSIONAL PX**

- Acid-resistant epoxy mortar, 100% watertight and very liquid.
- 100% watertight.
- Pre-dosed.
- Available in 25 colours.
- Liquid consistency, no running.
- Ideal for grouting 0-to-10mm-wide joints on pool decks.
The location and layout of the ceramic covering’s expansion joints will always coincide with the location of a moving joint, as explained in point 4.2.

To seal these joints elastically, we’ll use sealants that comply with regulations EN ISO 11600 y UNE-EN 15651, parts 1 to 5.
**SILICONA NEUTRA**

- Mould-resistant silicone, pure and solvent-free.

**SELLALASTIC**

- Highly elastic polyurethane putty.

**SELLALASTIC FOAM**

- Closed cell polyethylene foam cord.

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**HOW IT WORKS FIX-ADVANTAGES**

- Doesn’t weaken, VOC-free.
- Putty specifically for sealing expansion joints in pools, changing rooms, bathrooms, and showers.
- Works without previously priming.
- Completely odourless.

**HOW IT WORKS FIX-ADVANTAGES**

- **SELLALASTIC** ideal for sealing outdoor joints between ceramic tiles, between a ceramic tile and aluminum and between other similar components.
- Completely waterproof and watertight, can be applied without previously priming.

**APPLICATION**

- Ideal for filling in expansion joints before sealing with elastic putty.
- With **SELLALASTIC FOAM**, the depth of a moving joint will never be larger than its width.
Fixcer offers constructors a wide range of cleaning products and tools to facilitate eliminating the leftover grout and/or to facilitate cleaning up after finishing the construction works. The use of cement- or epoxy-based products will determine whether to use one product or another.
<table>
<thead>
<tr>
<th><strong>EPOXINET</strong></th>
<th><strong>EPOXI CLEANER</strong></th>
<th><strong>GRESNET</strong></th>
<th><strong>FIX-SABO</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unique blend of organic solvents</strong> for emulsifying the fresh epoxy leftovers with water.</td>
<td><strong>Cleaning detergent</strong>, extremely efficient for eliminating dry leftovers of epoxy joints.</td>
<td><strong>Cleaning acid, especially made with surfactants and corrosion inhibitors.</strong> Eliminates leftover cement and cement-based grouts stuck to the tile.</td>
<td><strong>Multipurpose degreaser</strong> for cleaning resistant oil and grease stains.</td>
</tr>
</tbody>
</table>

- The product to use while applying the epoxy joint.
- Facilitates eliminating epoxy from the paving and from the application tools.
- Apply directly, leave for 10-30 minutes and remove the epoxy leftovers.
- Its gel-like texture facilitates cleaning vertical walls.
- Its transparent colour doesn’t alter the colour of the joint.
- Doesn’t give off vapour and therefore doesn’t attack stainless steel, chromium or mirrors.
- Always apply diluted in 10 parts of water.
- We recommend using it a week after placing the joint in order for it to only act upon the surface and avoid damaging the joints.
- Powerful industrial disinfectant. Doesn’t attack the ceramic tiles nor alter their colour.
- The ideal detergent for periodically cleaning domestic and industrial paving, highly useful for degreasing kitchen paving.
There are four essential tools for correctly applying, cleaning and finishing our grout on walls and paving.
A hard rubber trowel that facilitates completely filling in the joints.

A hard, white Scotch Brite that doesn’t discolor while cleaning. By performing circular movements, we can easily remove all leftover grout.

A highly absorbent sponge that can quickly clean up the leftover water after cleaning the ceramic tiles with FIX-LLANA CLEANING TROWELL.

A bucket specifically designed to make rinsing FIX-LLANA CLEANING TROWELL and FIX-LLANA WITH SPONGE less tedious. An essential tool for a high-performance job.
<table>
<thead>
<tr>
<th><strong>CONCRETE</strong></th>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>FISSURE</strong></td>
<td>Small superficial opening that doesn’t traverse the concrete.</td>
</tr>
<tr>
<td><strong>CRACK</strong></td>
<td>Opening that affects the whole thickness of the concrete, usually being wider and completely traversing the concrete.</td>
</tr>
<tr>
<td><strong>CONCRETE</strong></td>
<td>Construction material composed of sand, grit, gravel, water and cement as a hydraulic binder.</td>
</tr>
<tr>
<td><strong>HUMIDITY FROM STEAM CONDENSATION</strong></td>
<td>It happens when a wall’s surface temperature is lower than that of the ambient dew point. Usually happens on thermal bridges, rooms with poor ventilation, bathrooms, kitchens.</td>
</tr>
<tr>
<td><strong>HUMIDITY FROM FILTRATION</strong></td>
<td>Refers to liquid water accessing structures through cracks. Usually happens at the point where the walls and the base slab meet, as well as in construction joints.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>MOVING JOINTS</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COEFFICIENT OF LINEAR THERMAL EXPANSION:</strong></td>
<td>Quotient that measures a physical body’s relative change of length when said body changes temperature.</td>
</tr>
<tr>
<td><strong>CONTRACTION JOINT</strong></td>
<td>Joint that subdivides large surfaces (ceramics and screed) into smaller panels. Its function is to absorb the movements caused by retractive changes of temperature and mechanical loads.</td>
</tr>
<tr>
<td><strong>EXPANSION JOINT</strong></td>
<td>Joint that affects the thickness of the ceramic covering to divide it into smaller regular areas. Its function is to reduce tensions derived from the expansions and contractions of the covering.</td>
</tr>
<tr>
<td><strong>STRUCTURAL JOINT</strong></td>
<td>Joint used in construction projects that divides the structure in order to allow its parts to move freely. This joint affects all the layers of the ceramic system.</td>
</tr>
<tr>
<td><strong>STRUCTURAL WATERTIGHT JOINT</strong></td>
<td>Structural joint used in construction projects that divides the structure with a twofold function: to allow its parts to move freely and to prevent all liquid products from penetrating the structure.</td>
</tr>
<tr>
<td><strong>PERIMETRE JOINT</strong></td>
<td>Joint used in changes of plane and in the limits of the parts to be covered in order to minimise the accumulation of tensions. It affects the ceramic covering and the mortar.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>MORTARS</strong></th>
<th></th>
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<tbody>
<tr>
<td><strong>EN138.002</strong></td>
<td>Regulation that contemplates all “general rules for laying ceramic tile covers by adherence.”</td>
</tr>
<tr>
<td><strong>PRIMING:</strong></td>
<td>Process by which a product is applied to a surface and then left to dry to later apply another product on top.</td>
</tr>
<tr>
<td><strong>MORTAR:</strong></td>
<td>Mix composed of aggregates, binders, water and additives with the right characteristics for complying with regulation EN998 on walls or EN13813 on paving.</td>
</tr>
<tr>
<td><strong>BONDING BRIDGE:</strong></td>
<td>Product applied to a surface upon which the next wet-on-wet product is applied before the first one dries.</td>
</tr>
<tr>
<td><strong>REGULISING LAYER</strong></td>
<td>Layer of mortar placed on a support to compensate for the variations of its flatness.</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th><strong>WATERPROOFING</strong></th>
<th></th>
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<tbody>
<tr>
<td><strong>EN14891</strong></td>
<td>Regulation waterproofing must comply with when using ceramic tiles as a final covering.</td>
</tr>
<tr>
<td><strong>EN1504</strong></td>
<td>Regulation waterproofing must comply with when used to protect the concrete.</td>
</tr>
<tr>
<td><strong>WATERTIGHTNESS</strong></td>
<td>QUALITY BY WHICH A CONSTRUCTIVE ELEMENT IS PERFECTLY HERMETIC, KEEPING OUT SOLVENTS, AIR, SMELLS, ETC.</td>
</tr>
<tr>
<td><strong>WATER-REPELLENCE</strong></td>
<td>Concrete treatment for creating a water-repellent surface. This treatment doesn’t form a continuous film on the surface it protects.</td>
</tr>
<tr>
<td><strong>WATERPROOFING</strong></td>
<td>Continuous layer that prevents water, air or smells from penetrating a surface. Some of those that prevent the passage of water can permeate water vapour diffusion.</td>
</tr>
<tr>
<td><strong>ELASTIC WATERPROOFING</strong></td>
<td>Waterproofing that recovers its original shape when the force altering its shape disappears.</td>
</tr>
<tr>
<td><strong>FLEXIBLE WATERPROOFING</strong></td>
<td>Waterproofing that can deform if submitted to a transversal tension.</td>
</tr>
<tr>
<td><strong>OSMOSIS</strong></td>
<td>When a solvent (e.g., water) comes into contact with a dilution (e.g., water + salts) through a semipermeable membrane, the molecules of the solvent pass through the membrane, causing a rise in volume and pressure on the side of the dilution.</td>
</tr>
<tr>
<td><strong>NEGATIVE PRESSURE</strong></td>
<td>Force per unit of surface exerted by water against waterproofing, when said waterproofing is on the opposite side of the structure it protects. In other words, the water passes through the structure before pressuring the waterproofing (also causing the steel rods to rust).</td>
</tr>
<tr>
<td><strong>POSITIVE PRESSURE</strong></td>
<td>Force per unit of surface exerted by water against waterproofing, when said waterproofing is in direct contact with the structure it protects.</td>
</tr>
</tbody>
</table>
## CEMENT GLUES

<table>
<thead>
<tr>
<th>Term</th>
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</tr>
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<tbody>
<tr>
<td>ADHERENCE</td>
<td>Maximum force per unit of surface that can be measured by traction or shear resistance, identified with the letter C.</td>
</tr>
<tr>
<td>NO RUNNING</td>
<td>Property of an adhesive that prevents tiles placed on a vertical surface from sliding down, identified with the letter T.</td>
</tr>
<tr>
<td>TRANSVERSAL DEFORMATION</td>
<td>Deformation registered in the center of a layer of hardened adhesive subjected to a three-point load, identified with the letter S.</td>
</tr>
<tr>
<td>DOUBLE GLUING</td>
<td>Placement technique that consists in spreading the cement glue over the reverse side of the pieces with a flat trowel and on the placement surface with a toothed trowel.</td>
</tr>
<tr>
<td>EN12004</td>
<td>Regulation bonding materials must comply with to be used for placing ceramic tile coverings.</td>
</tr>
<tr>
<td>FLEXIBILITY</td>
<td>Ability of a hardened adhesive to deform with the tension between the tile and the placement surface.</td>
</tr>
<tr>
<td>FAST SETTING</td>
<td>Property of certain adhesives to obtain the initial adherence results of a normal setting adhesive after 6 hours at most. Identified with the letter F.</td>
</tr>
<tr>
<td>POT LIFE</td>
<td>Longest time span during which an adhesive can be used after having been mixed.</td>
</tr>
<tr>
<td>OPEN TIME</td>
<td>Longest time span after applying the adhesive during which the tiles can be laid and still comply with the adherence specifications.</td>
</tr>
</tbody>
</table>

## JOINT MORTARS

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN13888</td>
<td>Regulation joint mortars must comply with when used for sealing ceramic tile coverings.</td>
</tr>
<tr>
<td>FUNGICIDE</td>
<td>Chemical or biological substance used for preventing, inhibiting or eliminate fungi or mould.</td>
</tr>
<tr>
<td>GRANULOMETRY</td>
<td>Study of the distribution of the different dimensions of a compound, e.g., aggregates. A mortar is considered very fine when, for instance, none of its components is larger than 150 microns.</td>
</tr>
<tr>
<td>CHEMICALLY RESISTANT GROUT</td>
<td>Grout that is resistant to a certain type of chemical product in a certain concentration, at a certain temperature and during a certain amount of time in contact.</td>
</tr>
<tr>
<td>VOC</td>
<td>Volatile Organic Compounds: compounds that contain carbon and can easily turn into vapour or gas. These compounds react to nitrogen oxides and light, resulting in tropospheric ozone, a toxic and oxidising gas that can cause respiratory problems.</td>
</tr>
</tbody>
</table>

## PURIFICATION SYSTEMS

<table>
<thead>
<tr>
<th>Term</th>
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</tr>
</thead>
<tbody>
<tr>
<td>CHLORINATION</td>
<td>Chlorine is introduced to the pool's water in gaseous, liquid, granulated or capsule form for the chlorine to disinfect the water. The pool's pH levels must be controlled with chemical products.</td>
</tr>
<tr>
<td>SALT WATER CHLORINATION</td>
<td>Common salt (sodium chloride) is introduced to the pool and using an electric device the sodium separates from the chlorine. This way, the chlorine disinfects the water and then bonds again with the sodium, repeating the cycle indefinitely. The concentration of salt in the water is 4-6 gr/l. The pool's pH levels must be controlled with chemical products.</td>
</tr>
<tr>
<td>OZONATION</td>
<td>Ozone is introduced to the pool's water. Ozone is a disinfecting agent that prevents the formation of harmful bioproducts such as chloramines. Ozone is produced using an ozone lamp. When treating the water with ozone, one must complement it with an additional water treatment system. There are two possibilities: chlorine, using 5-10% of the amount used in the traditional method and controlling the pH level; or copper-silver ionisation.</td>
</tr>
<tr>
<td>COPPER-SILVER IONISATION</td>
<td>Silver ions are produced to act as algaecides, disinfectants and flocculants, providing the water with a very clear transparency and reducing the consumption of chlorine and chemical products. This system complements but does not replace the previously mentioned water treatment systems.</td>
</tr>
<tr>
<td>SALT WATER CHLORINATION + COPPER-SILVER IONISATION</td>
<td>The pool's pH levels must be controlled using chemical products.</td>
</tr>
<tr>
<td>OZONATION + CHLORINATION</td>
<td>The pool's pH levels must be controlled using chemical products.</td>
</tr>
<tr>
<td>OZONATION + COPPER-SILVER IONISATION</td>
<td>The pool's pH levels don’t have to be controlled.</td>
</tr>
</tbody>
</table>

## OTHER TERMS

<table>
<thead>
<tr>
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<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROCTOR TEST</td>
<td>Prueba de laboratorio que sirve para determinar la relación entre el contenido de humedad y el peso unitario seco de un suelo compactado.</td>
</tr>
<tr>
<td>PILING</td>
<td>Sistema de cimentación profunda que consiste en clavar pilotes en el terreno, buscando el estrato resistente, a fin de soportar las cargas transmitidas por la estructura a sostener.</td>
</tr>
<tr>
<td>PILINGS</td>
<td>Elementos de hierro u hormigón armado que se incrustan en el terreno para transmitir las cargas a sostener.</td>
</tr>
</tbody>
</table>