



G U I D E S W I M M I N G POOL BUILDING S O L U T I O N S

> Zero MAINTENANCE POOLS

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# Zero MAINTENANCE POOLS

Fixcer Solutions Guide for making your construction project fast, efficient and resistant

## 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:



## **PRECISION**

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 1,000,000m<sup>2</sup> 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 Fixer 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!**

Work with Fixcer solutions and build zero-maintenance pools: no cracks, no fissures, no water loss.

Pools for a lifetime = satisfied customers.

## Fixcer Solutions 100% guarantee + trust





**SOLUTIONS** FOR CONCRETE **POOLS** 

## **CHOOSING A CONCRETE POOL**

Why are concrete pools the best option?

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.

#### WHAT YOU NEED TO KNOW **BEFORE STARTING**

#### 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 out structure, it can be subjected to negative pressure from the water table. Being ready for it is the only solution.

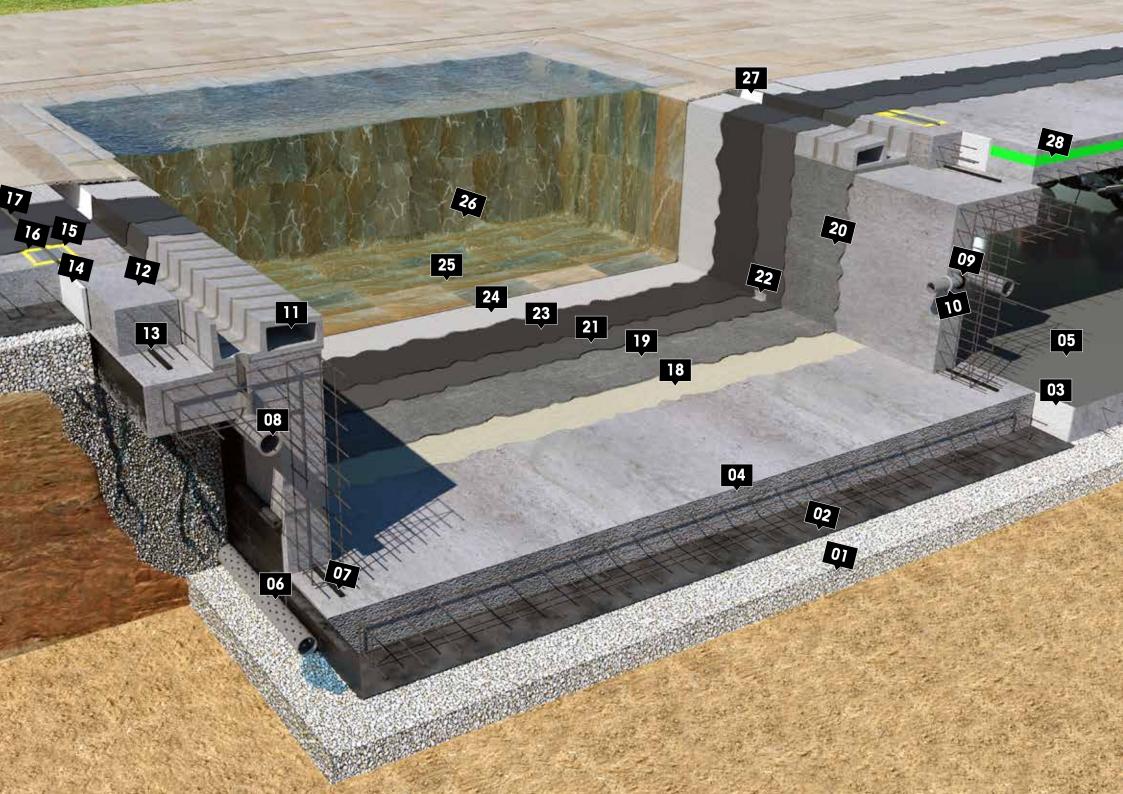
#### Types of concrete

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.

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**SELLALASTIC ELASTIC PUTTY** 

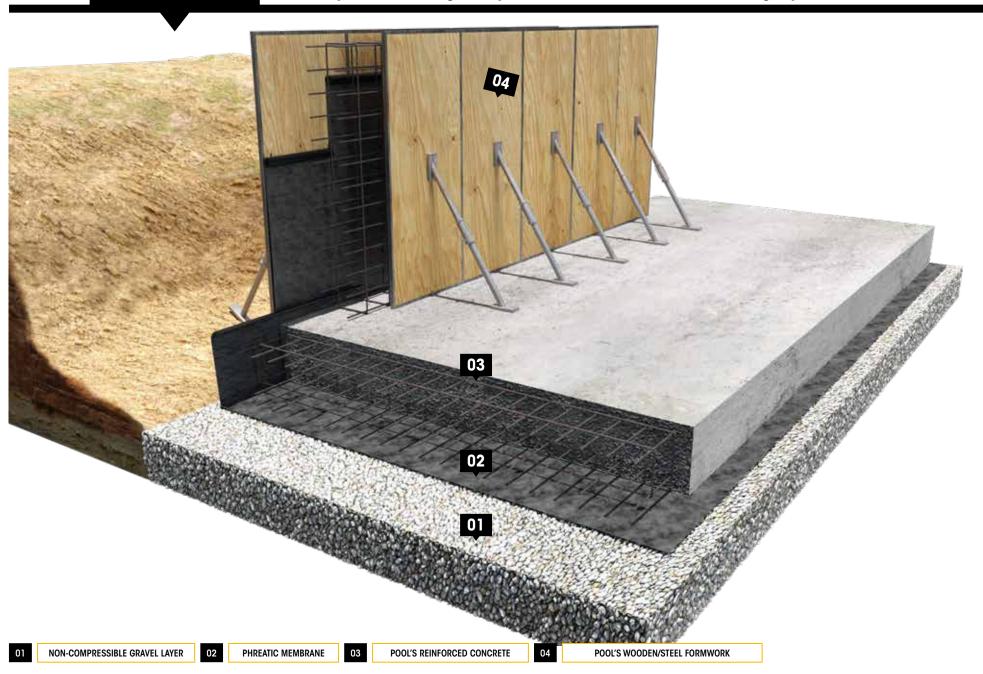


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SOLUTIONS FOR CONCRETE POOLS

## **DAMP-PROTECTION SHEET MEMBRANE**

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



#### PHREATIC MEMBRANE: USE AND PLACEMENT

#### **FIXCER SOLUTION**



To avoid negative pressure, we use the LAMINA FREATICA made using co-extrusion.

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

The first layer is a flexible polyolefine membrane. It's a completely watertight polymer barrier.

The second layer is a modified polypropylene needle-punch non-woven coverage. Th third layer is a self-adhesive strip of butyl rubber, highly elastic.

We recommend putting the LAMINA FREATICA in place before starting work on the pool's reinforced concrete, in order to prevent water from leaking into the structure as a result fo the terrain's negative pressure.

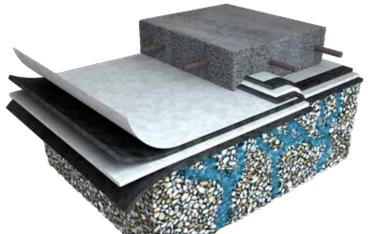
The LAMINA FREATICA's Fixcer has the following technical characteristics:

-It's a waterproof membrane to protect the subterranean concrete structures both in residential and industrial projects.

-It's a membrane suitable for homes, commercial centres, public works and overall any project that requires continuous contact between the membrane and the structure (foundation slabs and walls, pilings, disposable copings). It's also suitable for use in channels, tanks, purification systems or tunnels.

-Most importantly: it's a certified and approved sheet with the CE seal in accordance with DIN EN 13967, which ensures total tightness at negative pressure.

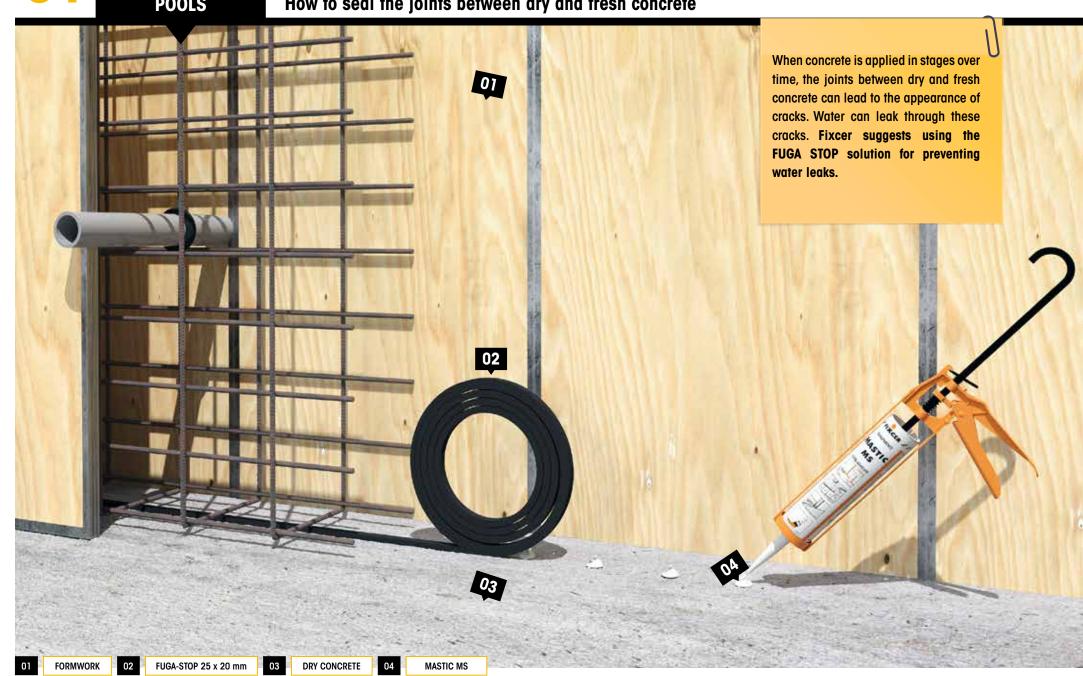
- Can be applied without using a welding torch.
- ✓ Its watertightness can be tested with simple. inspections.
- High mechanical resistance.
- High resistance to hydraulic loads.
- Highly flexible, thus bridging cracks.
- High chemical resistance against the terrain's natural aggressive agents.
- Suitable for salt water.
- Complete adhesion to concrete thanks to the layer of nonwoven fabric.
- Quick and easy application.



**SOLUTIONS** FOR CONCRETE **POOLS** 

## **CONSTRUCTION JOINTS**

How to seal the joints between dry and fresh concrete





## HOW IT WORKS FIX-VENTAJAS



## APPLICATION (

## **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.

MINIMUM COST **MAXIMUM SAFETY** HIGHLY EFFECTIVE LEAK **PREVENTION** 

#### **MASTIC MS**

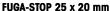


MASTIC MS is the ideal adhesive for a perfect grip using FUGA-STOP 25 x 20 mm.

- ✓ 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.

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







Application of FUGA-STOP 25 x 20 mm



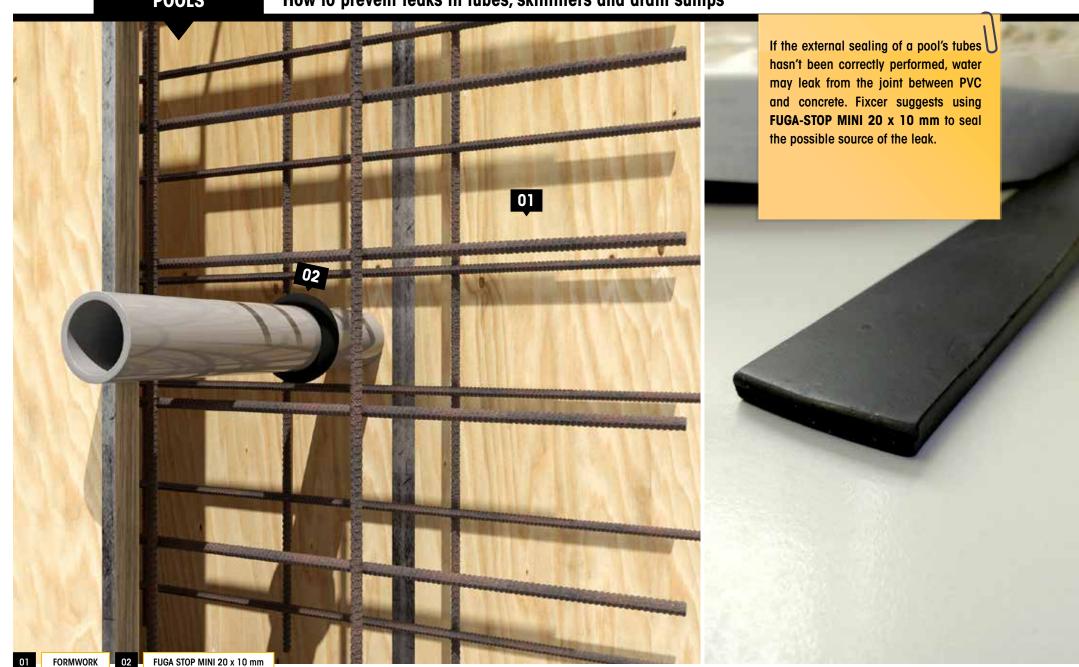
FUGA-STOP 25 x 20 mm once in place



SOLUTIONS FOR CONCRETE POOLS

## **INTERNAL SEALING FOR PVC TUBES**

How to prevent leaks in tubes, skimmers and drain sumps



#### HOW IT WORKS FIX-ADVANTAGES



## APPLICATION (



## **FUGA-STOP MINI** 20 x 10 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.

> MINIMUM COST **MAXIMUM SAFETY** HIGHLY EFFECTIVE LEAK **PREVENTION**

#### **MASTIC MS**



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

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.



**USING FUGA-STOP MINI DELIVERS BETTER RESULTS** THAN GLUING AND **SANDING THE TUBE** 



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.

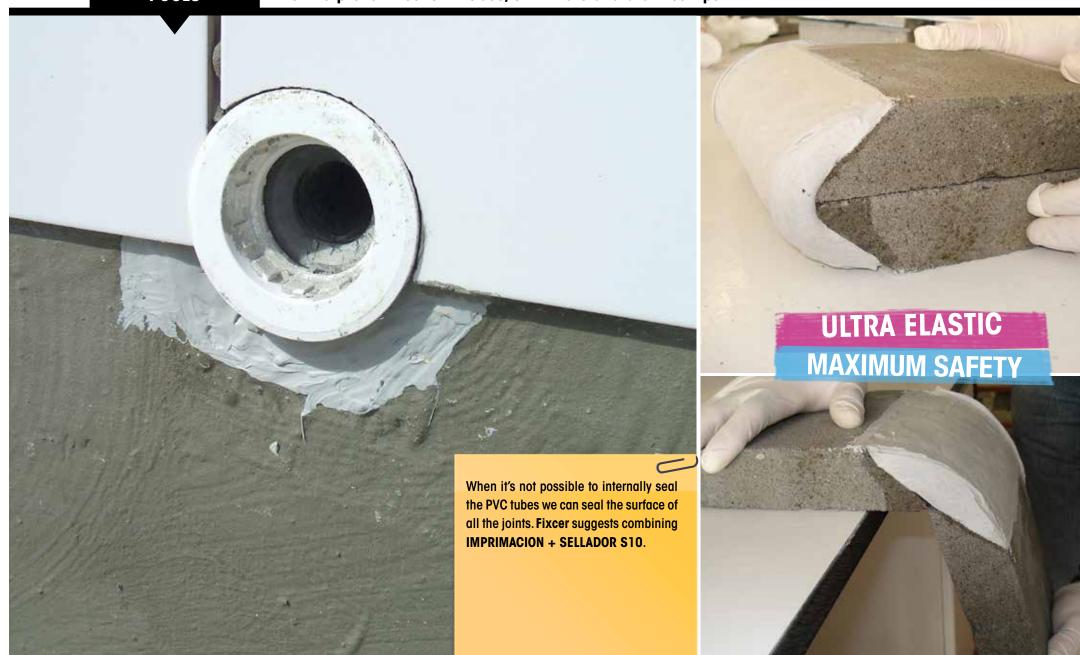


Make sure there are at least 4cm of concrete all around FUGA-STOP MINI 20 x 10 mm

SOLUTIONS FOR CONCRETE POOLS

## **EXTERNAL SEALING FOR PVC TUBES**

How to prevent leaks in tubes, skimmers and drain sumps





## HOW IT WORKS FIX-ADVANTAGES



## APPLICATION (



## **IMPRIMACIÓN SELLADOR S10**



Liquid and transparent polyurethane sticks to absorbent or semi-

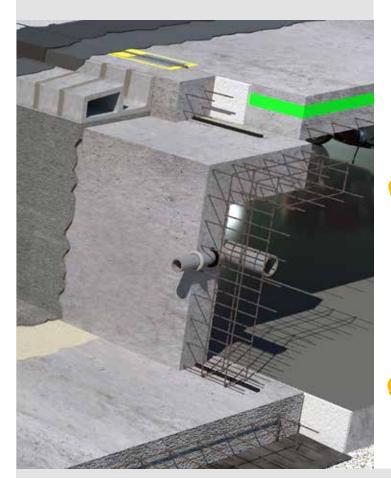
**SELLADOR S10** 

absorbent surfaces.



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

- El SELLADOR S10 is an extraordinarily elastic filler (more than 800%).
- ✓ It is ideal for absorbing the vibrations of the pool's water pumps.







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.



Apply IMPRIMACIÓN SELLADOR \$10 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.



Apply SELLADOR S10 On the side of the concrete then apply more SELLADOR S10 on the side of the PVC.



The filler must penetrate deeply and touch the s des of the concrete.

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SOLUTIONS FOR CONCRETE POOLS

## **MORTAR FOR WALLS**

How to correctly apply mortar to the walls





#### HOW IT WORKS FIX-ADVANTAGES



## APPLICATION (



#### **FIX-REVOCO**



Adhesive mortar prepared with compensated granulometry sand that doesn't contain expansive sands or clays: it can be applied without primers and without a bonding bridge directly onto the concrete.

## **FIX-REVOCO PROYECTABLE**



Adhesive mortar prepared with compensated granulometry sand. Ideal for high production performance. Applied without primers or bonding bridge.

- Resists the constant presence of humidity thanks of its compensated granulometry 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.



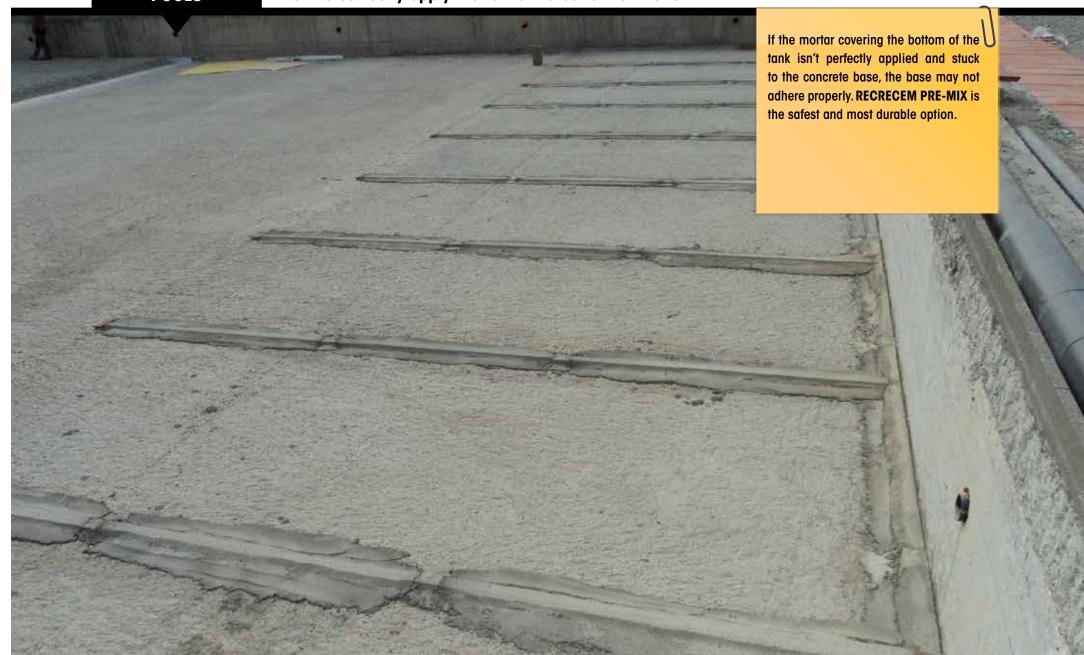
SPECIAL FOR POOLS



SOLUTIONS FOR CONCRETE POOLS

## MORTAR FOR THE BOTTOM OF THE TANK

How to correctly apply mortar to the bottom of the tank





## HOW IT WORKS FIX-ADVANTAGES



## APPLICATION (



#### **PRIMFIX**



Adhesive latex for making bonding bridges before applying **RECRECEM PRE-MIX**.Mix with cement in a proportion of 1:1.

## **RECRECEM PRE-MIX**



Non-adhesive mortar made with compensated granulometry sand

Can be used for making any level of thickness on the bottom of the pool. First apply the bonding bridge PRIMFIX + Cement.

- **RECRECEM PRE-MIX** is the ideal mortar for making level bases in pools.
- Resists the constant presence of humidity thanks ot its compensated granulometry 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

- Always apply a bonding bridge first with PRIMFIX + Cement in a proportion of 1:1.
- **Immediately** apply pre-dosed mortar **RECRECEM PRE-MIX** previously mixed with water.





# 100% watertight waterproofing systems





# Find the Perfect Solution for your project



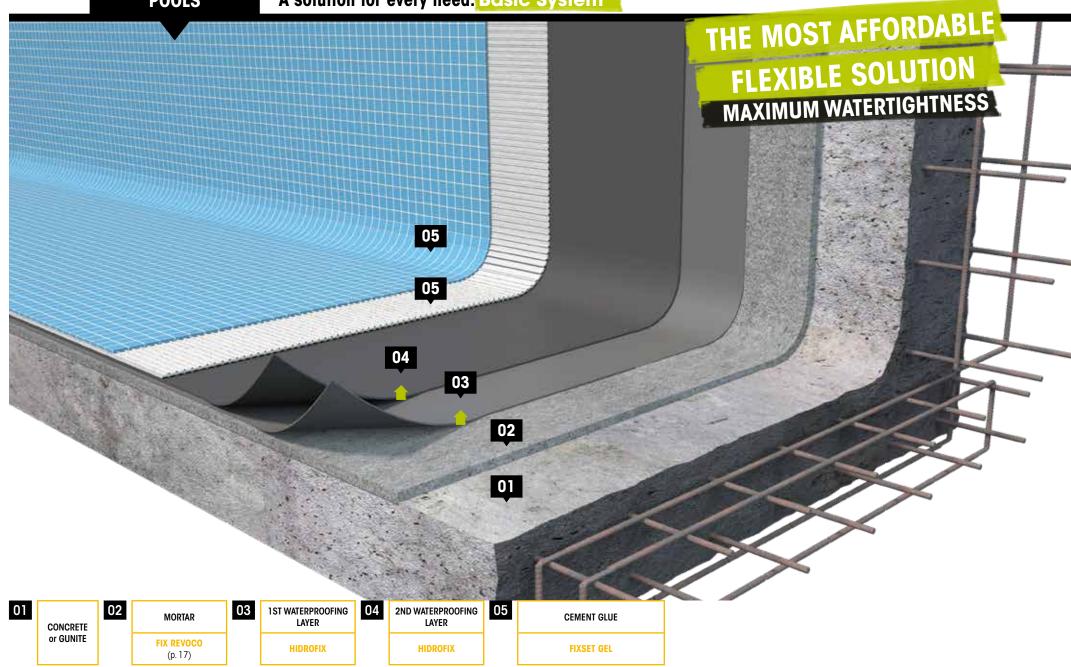




SOLUTIONS FOR CONCRETE POOLS

## WATERPROOFING AND TILE LAYING SYSTEMS

A solution for every need: Basic System





#### **HIDROFIX**





**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 he waterproofing doesn't need to be reinforced with fibreglass.

#### **FIXSET GEL**



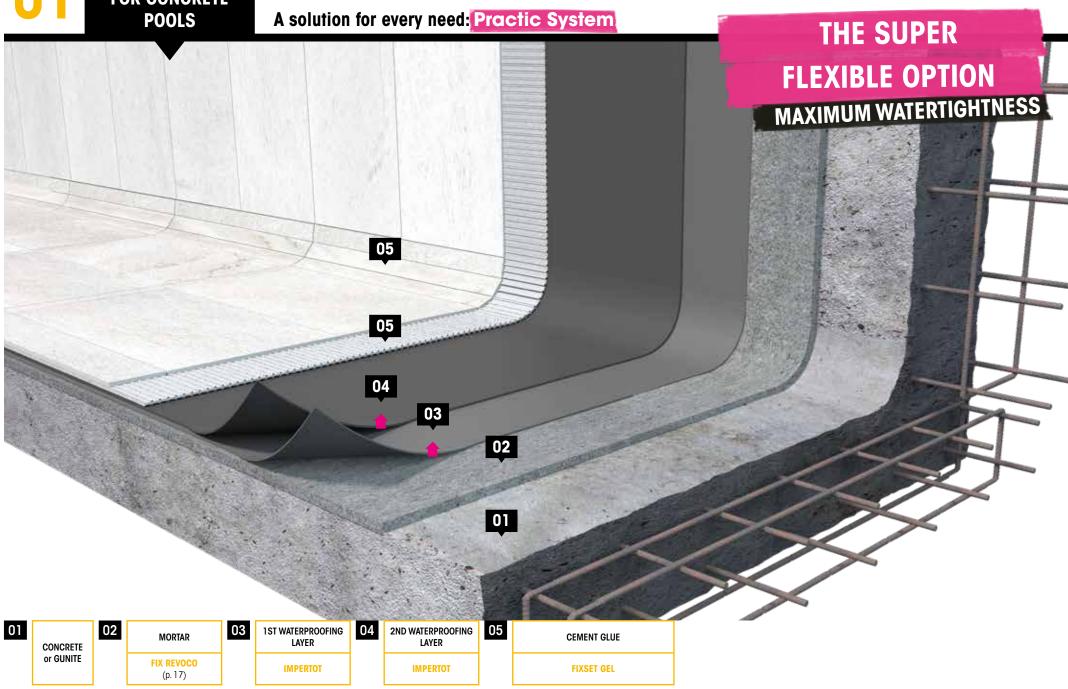
#### SINGLE-COMPONENT cement glue

with GEL texture for laying glass mosaic or ceramic tiles. It's also ideal for grouting tiles in pools with traditional chlorine chlorination.



SOLUTIONS FOR CONCRETE

## WATERPROOFING AND TILE LAYING SYSTEMS





#### **IMPERTOT**





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



**Two-component** cementicious mortar. Flexible, 100% watertight.

## HOW IT WORKS FIX-ADVANTAGES



- ✓ The two-component format avoids mistaking dosages on site as the product is completely pre-dosed.
- **✓ IMPERTOT** does not need reinforcing with fibreglass mesh.

#### **FIXSET GEL**



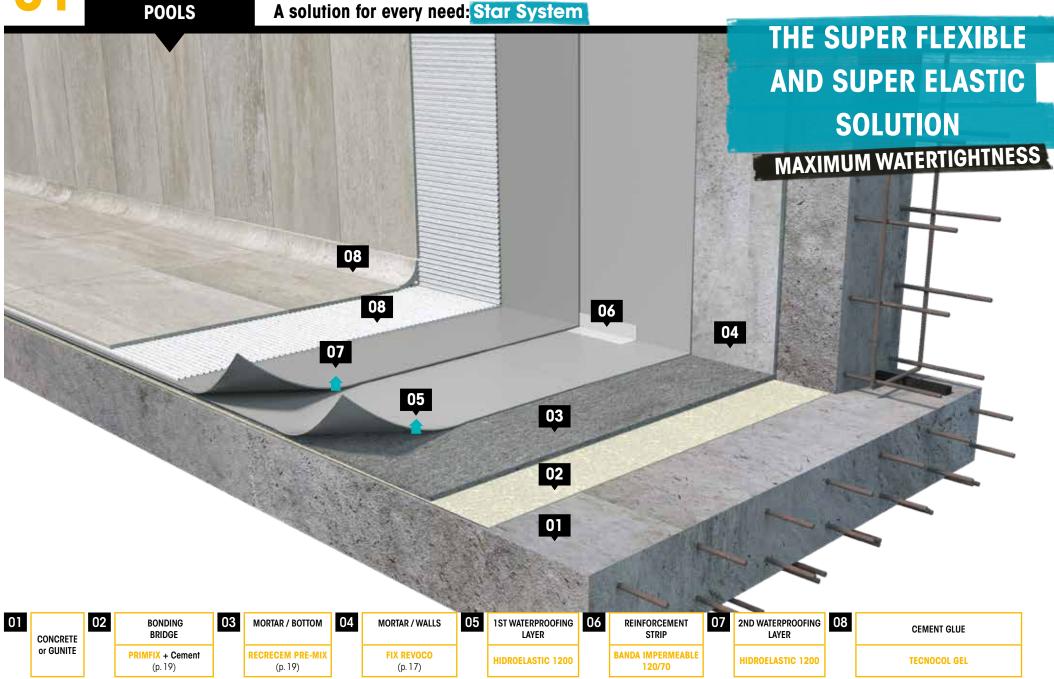
#### SINGLE-COMPONENT cement glue

with GEL texture for laying glass mosaic or ceramic tiles. It's also ideal for grouting tiles in pools with traditional chlorine chlorination.



SOLUTIONS FOR CONCRETE POOLS

## WATERPROOFING AND TILE LAYING SYSTEMS







# **HIDROELASTIC**





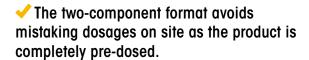


**THE MOST COST-EFFECTIVE SOLUTION! RESISTS AND BRIDGES 1.25MM** CRACKS AT -5° OR 1.07MM CRACKS AT -20°C

Waterproofing. Two-component cementicious pre-dosed and super elastic.

## HOW IT WORKS FIX-ADVANTAGES





✓ Most cost-effective option on the market.

#### **TECNOCOL GEL**

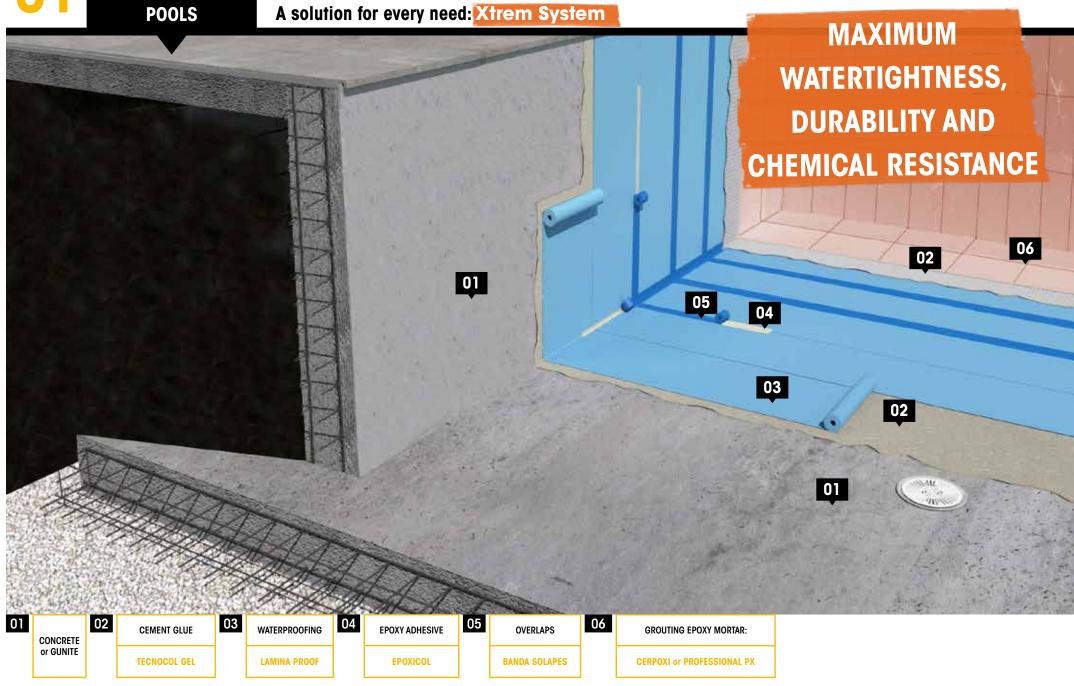


**HIGHLY ADHESIVE and flexible C2TES1** single-component cement glue with GEL texture for laying glass mosaic or ceramic tiles. It's also ideal for grouting tiles in pools with traditional chlorine chlorination.



SOLUTIONS FOR CONCRETE POOLS

## WATERPROOFING AND TILE LAYING SYSTEMS









Watertight, semi-elastic PVC sheet for on-site waterproofing

## HOW IT WORKS FIX-ADVANTAGES



- 100% watertight and semi-elastic solution.
- Bridges even support cracks.
- ✓ Ideal for pools in attics and/or pools with multiple water leaks.
- ✓ The joints between different sheets are easily sealed with EPOXICOL.
- ✓ Easily glue ceramics using only cement glue.

#### **TECNOCOL GEL**



#### HIGHLY ADHESIVE and flexible

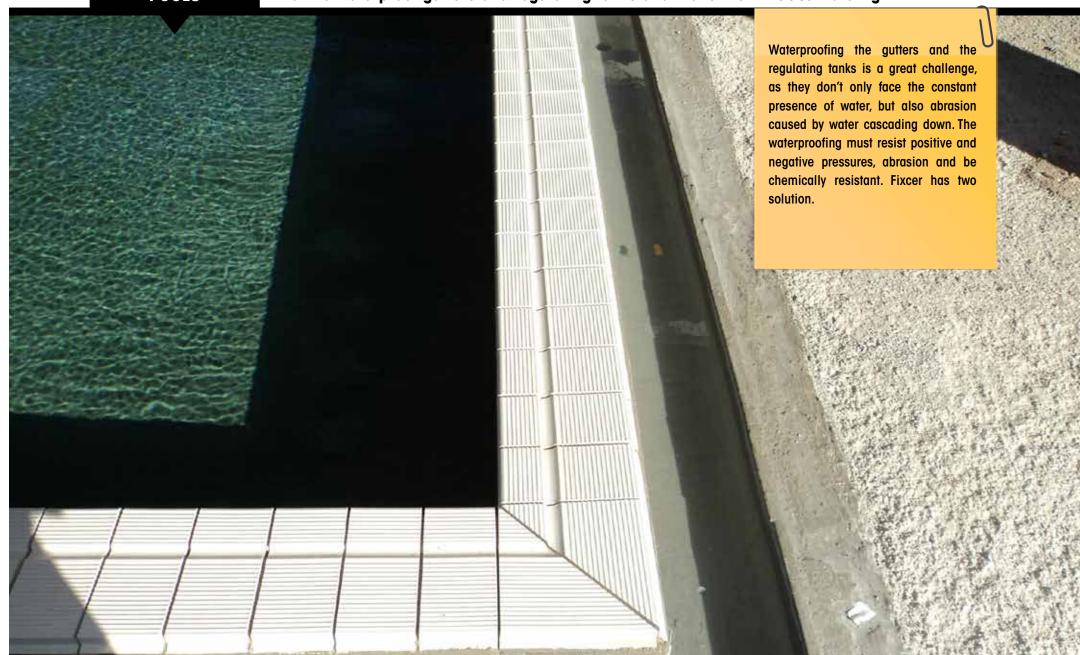
C2TES1 single-component cement glue with GEL texture for laying glass mosaic or ceramic tiles. It's also ideal for grouting tiles in pools with traditional chlorine chlorination.



SOLUTIONS FOR CONCRETE POOLS

## **GUTTERS AND REGULATING TANKS**

How to waterproof gutters and regulating tanks and make them 100% watertight





#### **SUPER-FLEXIBLE FIXCER SOLUTION**



## COMPLEMENTARY PRODUCT



#### **HIDROFIX**



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

## HOW IT WORKS FIX-ADVANTAGES ☐

- 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



Two-component cementicious mortar. Super-flexible, 100% waterproof

#### HOW IT WORKS FIX-ADVANTAGES ☐

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

#### **EPOXICOLOR**



8 COLOURS AFTER HIDROFIX OR IMPERTOT IT'S THE PERFECT **ACID-RESISTANT PROTECTION FOR** WATERPROOFING

PRE-DOSED

Reactive EPOXY paint.

## HOW IT WORKS FIX-ADVANTAGES □



- Liquid, pre-dosed paint.
- Available in 8 colours.
- Easy application with a short nap roller.

SOLUTIONS FOR CONCRETE POOLS

## **SEALING JOINTS**

#### Why is grouting the most important step?

## 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.

#### MAIN WATER TREATMENT SYSTEMS

#### 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/lt. 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.

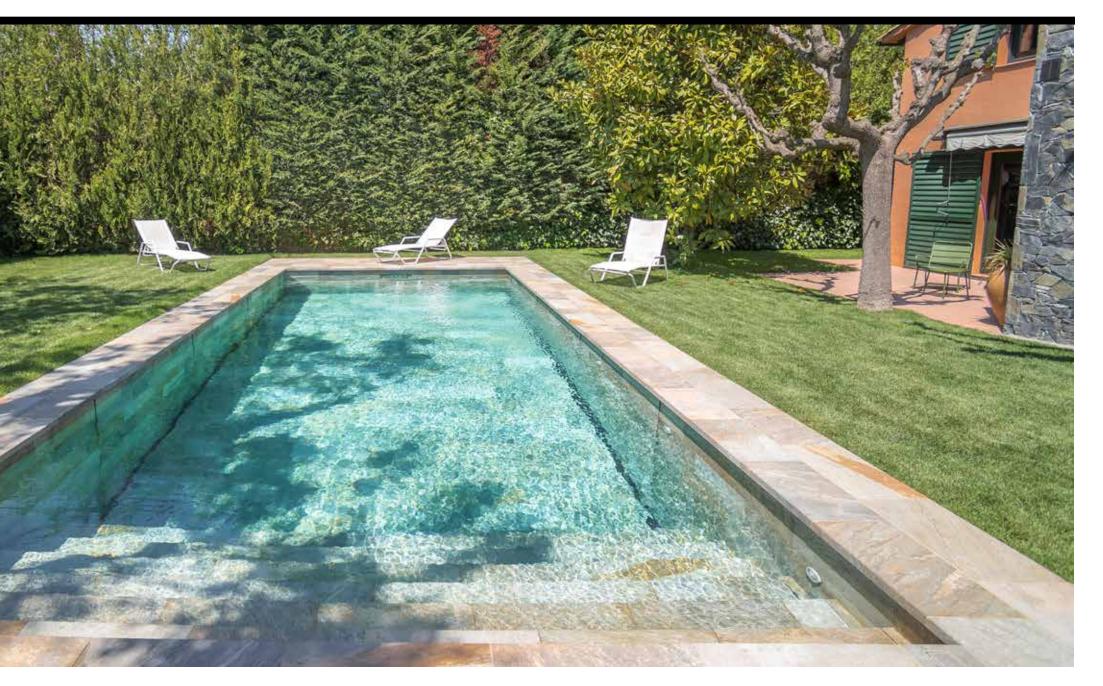
#### Ozonation + chlorination

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.





## For traditional chlorinated pools



#### **FIXCER SOLUTION**



## **APPLICATION**



#### AVAILABLE **COLOURS**



#### **IDEAL COLOR**



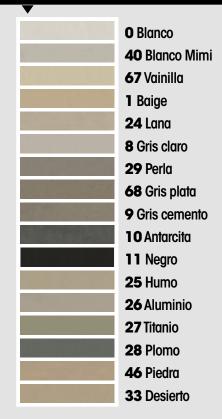
HIGH-TECH mortar for sealing joints from 0 to 6 mm. Water repellent. Fungicide. Fast setting. Without fissures.

**HOW IT WORKS FIX-ADVANTAGES** 



- Health-friendly mortar made with special hydraulic aggregates.
- ✓ Available in 34 pre-dosed colours.
- ✓ High mechanical resistance. Colours with no efflorescence.
- Fast setting mortar: easy application, cleaning and maintenance.

- All joints must be washed before applying the product.
- Mix IDEAL COLOR with 22% clean water. Let sit for 2 minutes. Then mix again to obtain a uniform mass ready for application.
- Apply IDEAL COLOR to completely fill in the joints.
- When the joint surface becomes opaque, which usually takes place after 15-30 minutes, you can proceed with the surface finish of the joint with the help of a slightly damp sponge.









#### **APPLICATION**







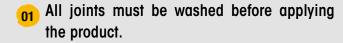
#### **EUROCOLOR FLEX**

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

**HOW IT WORKS FIX-ADVANTAGES** 



- ✓ Available in 8 pre-dosed colours, ideal for grouting chlorinated pools.
- ✓ Very fine finish and bright colours.
- ✓ High mechanical resistance, adherence and waterproofness.
- Resistant to weak acids, making it the go-to choice for grouting chlorinated pools.



- Mix EUROCOLOR FLEX with 27% clean water. Let sit for 2 minutes. Then mix again to obtain a uniform mass ready for application.
- Apply EUROCOLOR FLEX to completely fill in the joints.
- When you touch the joint and no material comes away on your fingers, remove all extra traces of grout.
- The next day it is mandatory to re-wet the seals with a soft, slightly damp sponge.





## For salt water chlorintion and traditional chlorinated pools



#### **FIXCER SOLUTION**



## APPLICATION







#### **CERPOXI**

Three-component

acid-resistant epoxy mortar for grouting.

#### **ACID-RESISTANT**

#### HOW IT WORKS FIX-ADVANTAGES ☐



- 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.

- All joints must be washed before applying the product.
- The product should ideally be mixed at +20°C. At lower temperatures, submerge the bottles in hot water. Mix the two liquid parts and then add the powder.
- Apply **CERPOXI** 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.





**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



#### **APPLICATION**







Three-component acidresistant epoxy mortar for laying tiles and grouting.

**GLUE + GROUT** 

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



- ✓ 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.



- The product should ideally be mixed at +20°C. Al lower temperatures, submerge the bottles in hot water. Mix tho 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.



AVAILABLE OOLOOKS	
	<b>00</b> Blanco
1111 1 1 1 1 1	<b>02</b> Beige oscuro
	<b>03</b> Beige natural
	<b>04</b> Marrón claro
	<b>08</b> Gris claro
	<b>09</b> Gris cemento
A ZIM BIRTH	10 Antracita
	11 Negro
	<b>14</b> Verde agua
1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	<b>15</b> Verde ácido
	<b>16</b> Verde giada
	<b>30</b> Translúcido
Control of	70 Amarillo oscuro
	<b>71</b> Ocre
MATERIAL PROPERTY.	<b>72</b> Tierra
TANTO 2 TO SEE AND	73 Rojo oscuro
BRUSOVIIS III	<b>74</b> Caramelo
	<b>75</b> Chocolate
section in Sufficient	<b>76</b> Verde Oliva
	77 Esmeralda
	78 Azul celeste
被付着数点不同一些等	<b>79</b> Azul marino
	82 Elondo
	83 Mongoy
-1.25 by "-111"	84 Cerezo claro
	<b>85</b> Arce

SOLUTIONS FOR CONCRETE POOLS

## 3-IN-1: WATERPROOFING, ADHERING AND GROUTING

A triple solution for waterproofing, adhering and grouting using a single product



## HOW IT WORKS FIX-ADVANTAGES

#### TRIPLE F GEL



DISCOVER

3 USES

**IN A SINGLE PRODUCT** 

WATERPROOFS

**ADHERES** 

E F GEL

Mixed with the right

# TRIPLE F GEL is a single-component mortar Mixed with the right amount of water it can:

WORLDWIDE NOVELTY

#### 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 EN 12004. 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



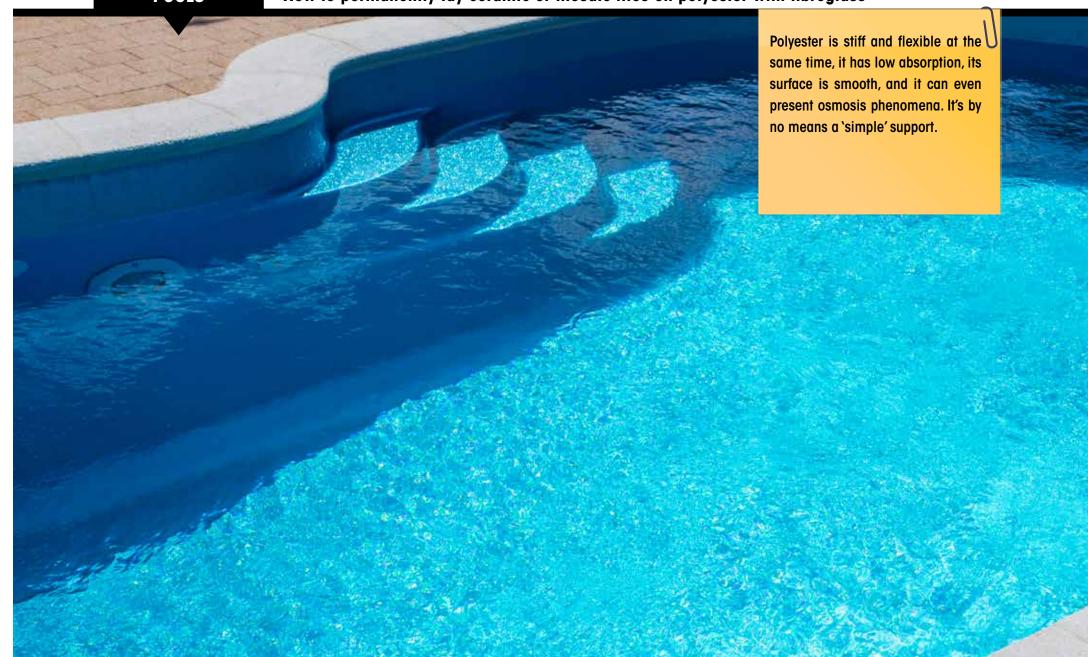
LESS WASTE CLEANER PRODUCT

# GROUTS

SOLUTIONS FOR POLYESTER POOLS

## **HOW TO RENEW YOUR POLYESTER POOL**

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





## HOW IT WORKS FIX-ADVANTAGES



#### APPLICATION 💥



#### **PROFESSIONAL PX**

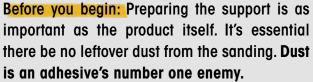


100% watertight acid-resistant epoxy mortar PROFESSIONAL PX mortar is pre-dosed and available in 26 colours.

> 26 COLOURS! **RENEWING POOLS SAFELY AND** WITHOUT LARGE **CONSTRUCTIONS**

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







Vacuum.

Place and grout the ceramic or the mosaic tiles.



**PROFESSIONAL PX GUARANTEES MAXIMUM ADHERENCE AND** CHEMICAL RESISTANCE **ON POLYESTER** 

SOLUTIONS FOR LINER POOLS

## **HOW TO RENEW YOUR LINER POOL**

How to lay ceramic or mosaic tiles on a permanently attached PVC liner





#### HOW IT WORKS FIX-ADVANTAGES ☐ ☐



#### **APPLICATION**



#### **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.

HIGHLY ADHESIVE

SUPER ELASTIC!

PROTECTING THE PVC LINER WITH CERAMICS EXTENDS A POOL'S USEFUL LIFE

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.

#### **COMPLEMENTARY PRODUCTS**





**ELASTICER** 





**CERPOXI** 

**PROFESSIONAL PX** 



Apply PRIMER ELASTICER with a cloth, rub, leave to dry.



Prepare the 3-component ELASTICER.



Mix the 2 liquids of the 3-component ELASTICER.



Add the 3-component's powder to the liquid and mix.



Lay the ceramic or mosaic tiles using **ELASTICER**.

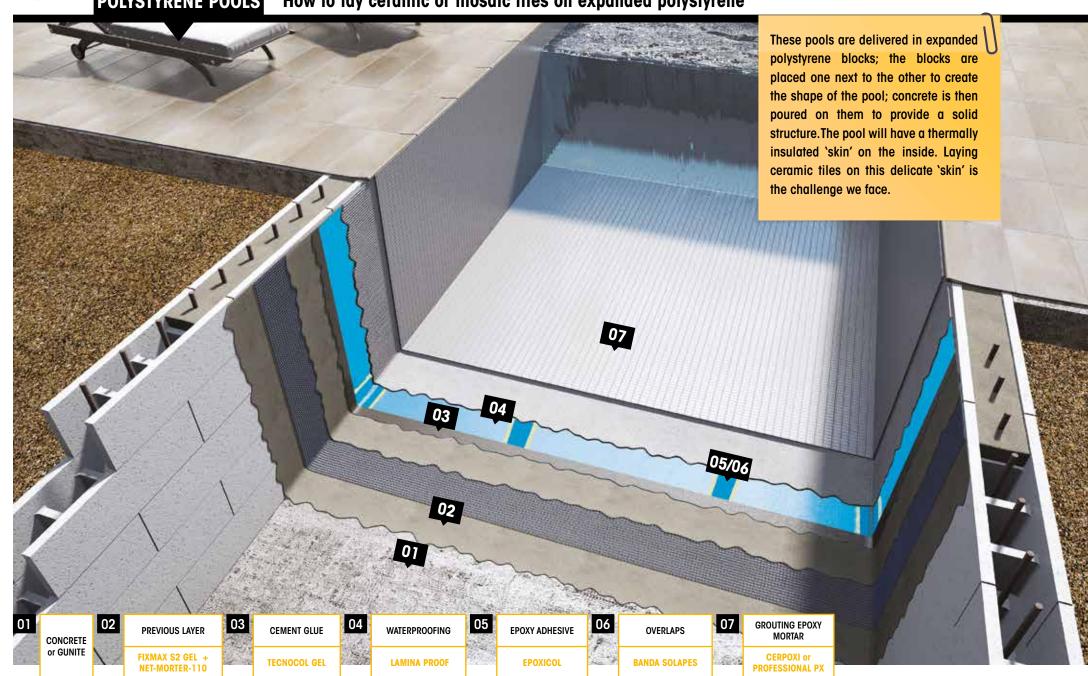


Grout the ceramic tiles with **CERPOXI or PROFESSIONAL PX.** 

**SOLUTIONS FOR EXPANDED POLYSTYRENE POOLS** 

## **HOW TO RENEW YOUR EXPANDED POLYSTYRENE POOL**

How to lay ceramic or mosaic tiles on expanded polystyrene





## HOW IT WORKS FIX-ADVANTAGES



#### **APPLICATION**



## **FIXMAX S2 GEL**

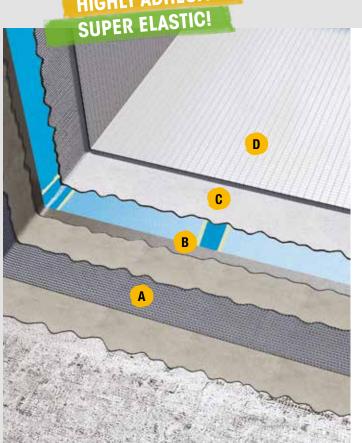
## **NET-MORTER** 110



- Highly adhesive and flexible.
- ✓ Classified C2TES2 according to EN 12004.

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







Apply two thin layers of FIXMAX S2 GEL placing the **NET-MORTER-110** fibreglass mesh between them.



After 24-36 hours adhere the covering using TECNOCOL GEL.



**LAMINA PROOF** with **TECNOCOL GEL.** See the application instructions in 29 page



Lastly, grout using the PROFESSIONAL PX.

#### **SINGLE-COMPONENT cementitious adhesive.**

#### **COMPLEMENTARY PRODUCTS**









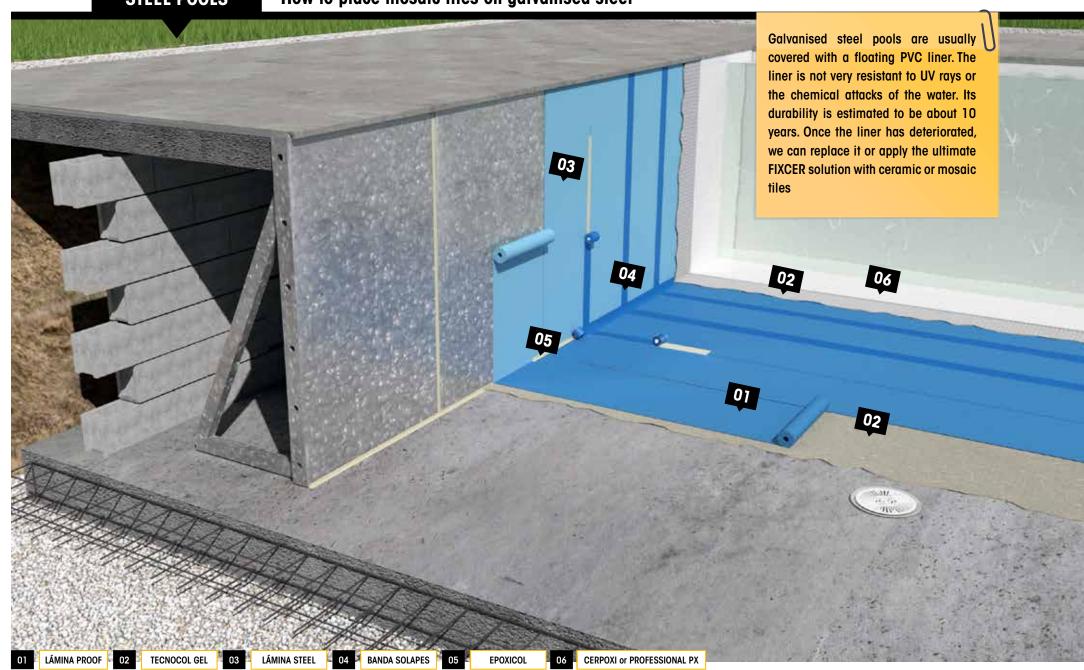
**TECNOCOL GEL** 

**PROFESSIONAL PX** 

SOLUTIONS FOR GALVANISED STEEL POOLS

## **HOW TO RENEW YOUR GALVANISED STEEL POOL**

How to place mosaic tiles on galvanised steel





## HOW IT WORKS FIX-ADVANTAGES



#### **APPLICATION**



#### **BANDA PROOF SOLAPES** STEEL



- ✓ 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 GEL directly onto the concrete of the pool bottom.
- BANDA-SOLAPES is made of the same material as the STEEL and PROOF sheets but is 14 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.**





#### **Flexible Textile Sheets**

Covered with a specific textile material that can be covered directly with ceramic of glass mosaic tiles

#### **COMPLEMENTARY PRODUCTS**





**PROFESSIONAL PX** 







Clean the walls with transparent acetone and remove all the dust from the concrete base.



Place the self-adhesive sheet STEEL on the walls. They don't need to overlap.



Place the LAMINA PROOF sheet on the bottom of the pool using the cement alue TECNOCOL GEL. They don't need to overlap.



On the walls, and on the bottom, and on the wall-floor union, place BANDA SOLAPES on both sides of the sheets using the adhesive EPOXICOL.



Place the covering using TECNOCOL GEL.



Grout the ceramic tiles using CERPOXI or PROFESSIONAL PX.

SOLUTIONS FOR RENEWING POOLS

## **CAN A RENEWAL MAKE A POOL LOOK LIKE NEW?**

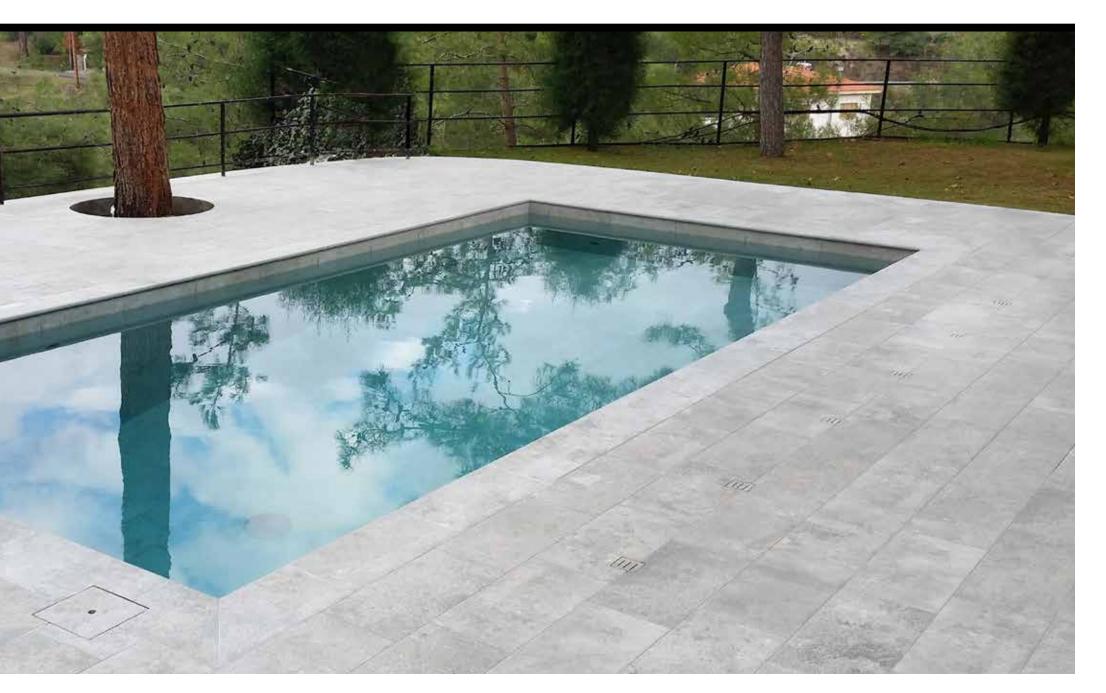
Fixcer has the right solution for every problem and type of pool

# SOLUTIONS FOR PRACTICAL AND SUSTAINABLE RENEWALS

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.** 







**SOLUTIONS FOR RENEWING POOLS** 

## **CHANGING THE CERAMICS**

How to lay new ceramic tiles without first removing the old ones





## HOW IT WORKS FIX-ADVANTAGES



#### **APPLICATION**



#### FIXMAX S2 GEL NET-MORTER-110







#### Single-component cementitious adhesive

Highly adhesive and flexibility classed C2TES2 according to EN12004.

COMPLEMENTARY PRODUCTS









**FIX-SABÓ** 

**GRESNET** 

**HIDROELASTIC** 





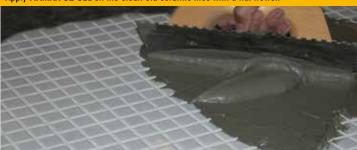




**TECNOCOL GEL CERPOXI ó PROFESSIONAL PX** 

Using the FIXMAX S2 GEL 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 GEL on the clean old ceramic tiles with a flat trowel









Clean the old ceramic tiles with the FIX-SABO detergent diluted in water in a proportion of 1:20 and rinse.



Apply two thin layers of super flexible cement FIXMAX S2 GEL, placing between them the reinforcement fibreglass mesh NET-MORTER 110.



fter 24-36 hours, lay the tiles using the cement glue TECNOCOL GEL.



Finish cleaning the old ceramic tiles with the cleaning acid GRESNET diluted in water in a proportion of 1:5. Rinse.



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.



Lastly, grout using the acidresistant epoxy mortar CERPOXI or PROFESSIONAL PX.

SOLUTIONS FOR RENEWING POOLS

## **CRACKS AND FISSURES**

How to fix leaks through micro-fissures in the concrete





## HOW IT WORKS FIX-ADVANTAGES



## APPLICATION (



## **NO-CRACKS**



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

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

Its dosage is 1-2 litres for every 60 m<sup>3</sup>.





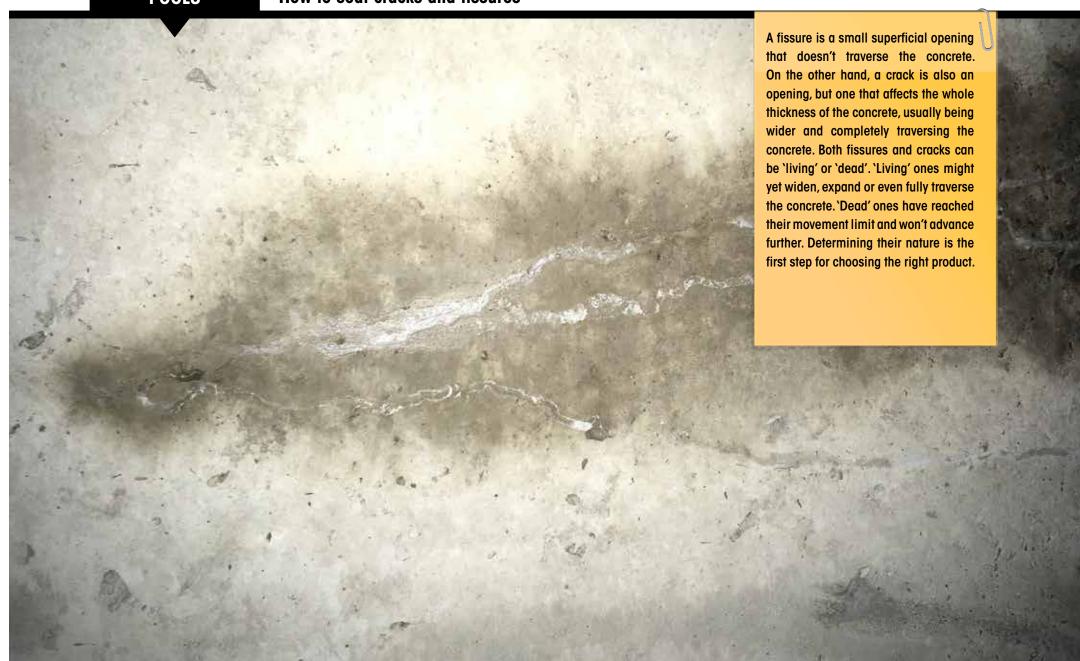
THE SAME FISSURE AFTER APPLYING NO-CRACKS



SOLUTIONS FOR RENEWING POOLS

## **CRACKS AND FISSURES**

How to seal cracks and fissures



#### **FIXCER SOLUTION**



#### **SELLADOR S10**

FOR LIVING **CRACKS** 



#### 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.

## 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 \$10. Lastly, seal the gap with this filler.

#### **FIXCER SOLUTION**



#### **EPOXICOL**

FOR DEAD OR STILL CRACKS



#### Acid-resistant epoxy adhesive

Ideal for sealing 'dead' cracks or fissures.

#### HOW IT WORKS FIX-ADVANTAGES ☐ 1



✓ 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.

SOLUTIONS FOR RENEWING POOLS

## **DETERIORATED CONCRETE**

How to repair deteriorated concrete









#### FIX-REPAR R2 o R4



DOES NOT REQUIRE **REMOVING ALL** THE RUST



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







Single-component powdered mortar for mixing with water.

#### Single-component fibre-reinforced mortar

Their creamy thixotropic textures make them easy to apply as iron-covering mortars.

#### HOW IT WORKS FIX-ADVANTAGES ☐ ☐



**HOW IT WORKS FIX-ADVANTAGES** 



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



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.

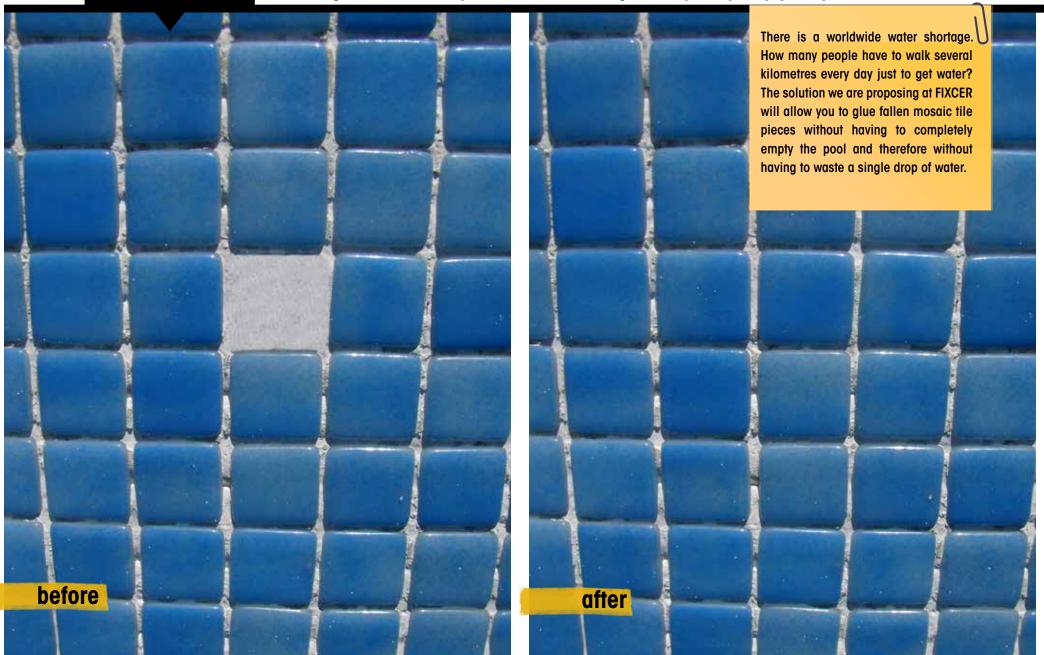
- Transparent gel-like liquid for protecting ferrous reinforcements.
- ✓ The easiest, most affordable solution for passivating iron.

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

SOLUTIONS FOR RENEWING POOLS

## **HOW TO GLUE GLASS MOSAICS UNDER WATER**

How to glue mosaic tile pieces without having to completely empty the pool





#### **APPLICATION**



#### **APPLICATION**



#### **PX UNDERWATER**



Specific adhesive that polymerises with or without the presence of water

## HOW IT WORKS FIX-ADVANTAGES



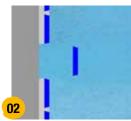
- Excellent mechanical resistance.
- High wear resistance.
- High adhesion.
- ✓ High resistance to UV radiation.
- ✓ Very good chemical resistance.

- Adhesive specifically for bonding and grouting of individual pieces of underwater glass mosaic tile.
- Allows the gluing of individual pieces, i.e. that are surrounded by other pieces that will act as anchors for the new piece glued in with PX UNDERWATER.
- 2 in 1 product: we use the excess material that protrudes from the joints for grouting.
- PX UNDERWATER is a specific adhesive that polymerises with or without the presence of water.

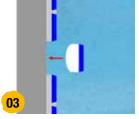




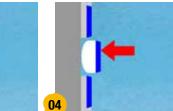
Three-component mortar. Mix mechanically with an electric stirrer.

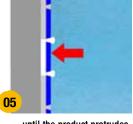


Completely empty the hole where the new piece will go.

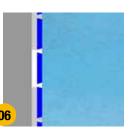


PX UNDERWATER to the back





.... until the product protrudes through the joints between pieces.



Immediately clean the remains of PX UNDERWATER.

#### SOLUTIONS FOR POOL DECKS

## **POOL DECKS**

#### **KEYS TO THEIR CORRECT CONSTRUCTION**

THESE ARE THE



ESSENTIAL GOALS WHEN BUILDING A POOL DECK



STRUCTURAL STABILITY



**POWER SAVING** 



**SAFETY** 



**WATERTIGHTNESS** 



TO ACHIEVE THEM
WE MUST PERFORM
THE FOLLOWING
STEPS



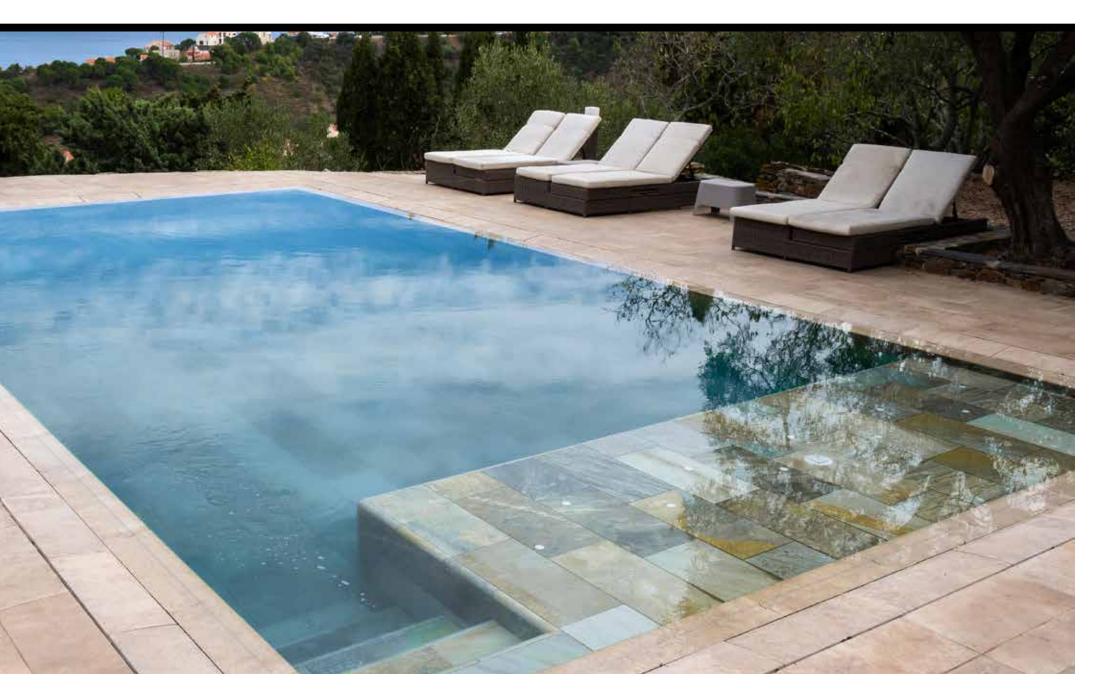






- Grout the anti-slip ceramic tiles
- Seal the expansion joints





SOLUTIONS FOR POOL DECKS

## **HOW TO BUILD THE BASE SLAB**

The key is to comply with regulation UNE 138002

To successfully build the concrete base slab and the mortar we recommend complying with all the or precepts of regulation **UNE** 138002.

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

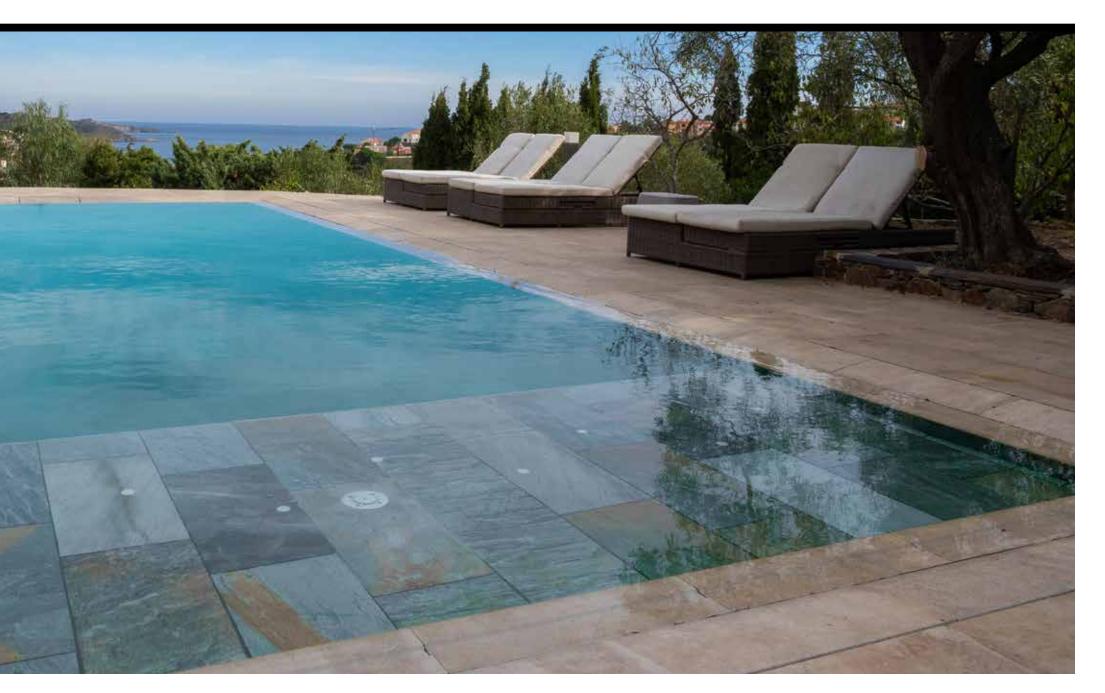
Functions of the intermediate layers of the ceramic system

7.8

Design and location of the moving joints







SOLUTIONS FOR POOL DECKS

## THE MOVING JOINTS

How to build a 100% watertight moving joint



The location of the moving joints must comply with point 7.8. of the regulation **UNE 138002**, 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.** 

## HOW IT WORKS FIX-ADVANTAGES



#### APPLICATION S



#### FIX-TAPE 170 mm



Ultra-elastic strip (600%).

#### **EPOXICOL**



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

- ✓ Watertight, elastomeric, thermoplastic, easy to connect with hot air at +320°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 170mm.
- Can be sealed with heat.
- Its extraordinary elasticity (600%) absorbs all differential movements between the different concrete structures, guaranteeing the expansion joint remain watertight.





Place the strip in the centre of joint and create a bellow we'll fill from the strip. Then apply a with SELLALASTIC FOAM.



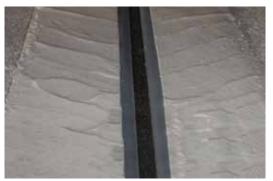
Place masking tape 2cm away 1-2mm-thick layer of EPOXICOL that reaches the masking tape.



Adhere the FIX-TAPE and immediately place more **EPOXICOL** on top and on both



Remove the self-adhesive strip from both sides and remove the masking tape.

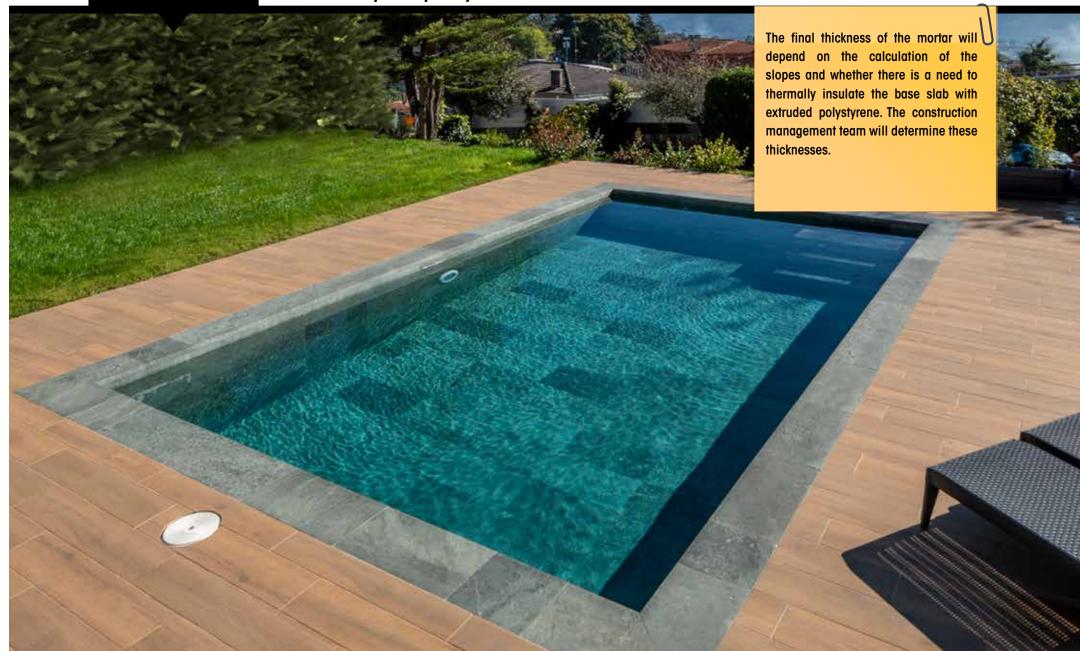


A completed moving joint with guaranteed watertightness.

SOLUTIONS FOR POOL DECKS

## **MORTARS FOR SLOPES**

How to safely and quickly level the deck





## HOW IT WORKS FIX-ADVANTAGES



## APPLICATION ( )



#### **PAVIFORT**



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

- **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.

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

For final thicknesses of more than 4cm, apply a layer of polyethylene to act as a vapour barrier and decoupling layer.

#### **PRIMFIX**

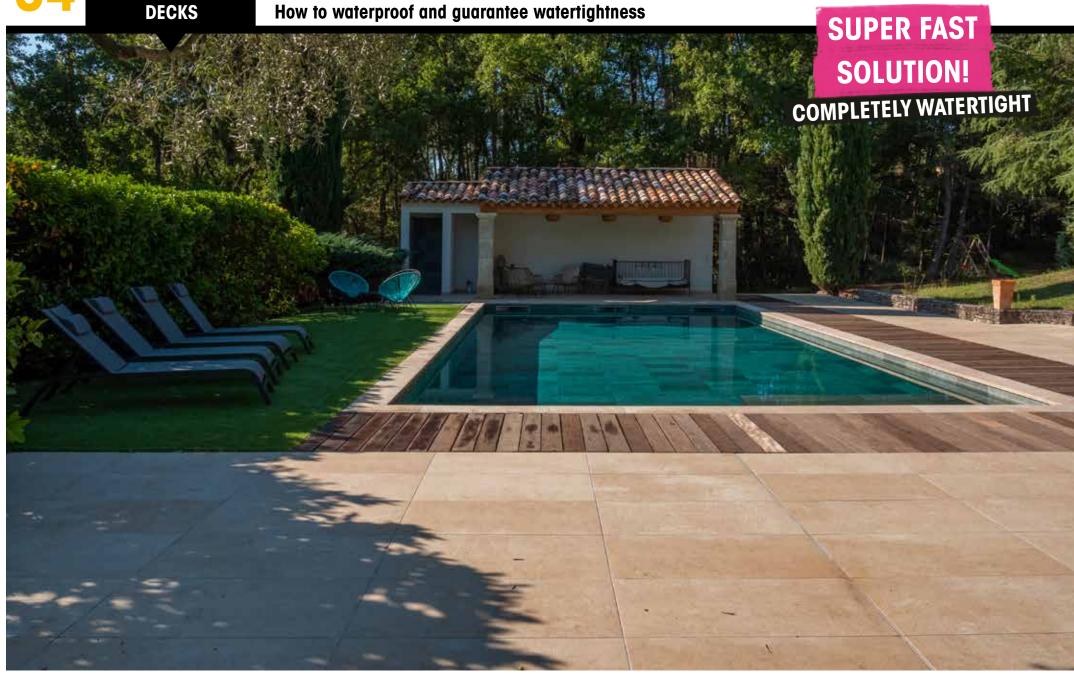


Adhesive latex for making bonding bridges before applying PAVIFORT. Must be mixed in a proportion of 1:1 with cement.



SOLUTIONS FOR POOL DECKS

## WATERPROOFING AND LAYING TILES ON THE DECKS





#### **HIDROFACIL**



## **HIDROFACIL** + FIXAFLEX GEL



For standard placements lay the ceramic tiles using FIXAFLEX GEL

## **HIDROFACIL** + FIXARAPID FLEX



For very urgent placement lay the ceramic tiles using FIXARAPID FLEX.

## HOW IT WORKS FIX-ADVANTAGES

single-component and quick-drying



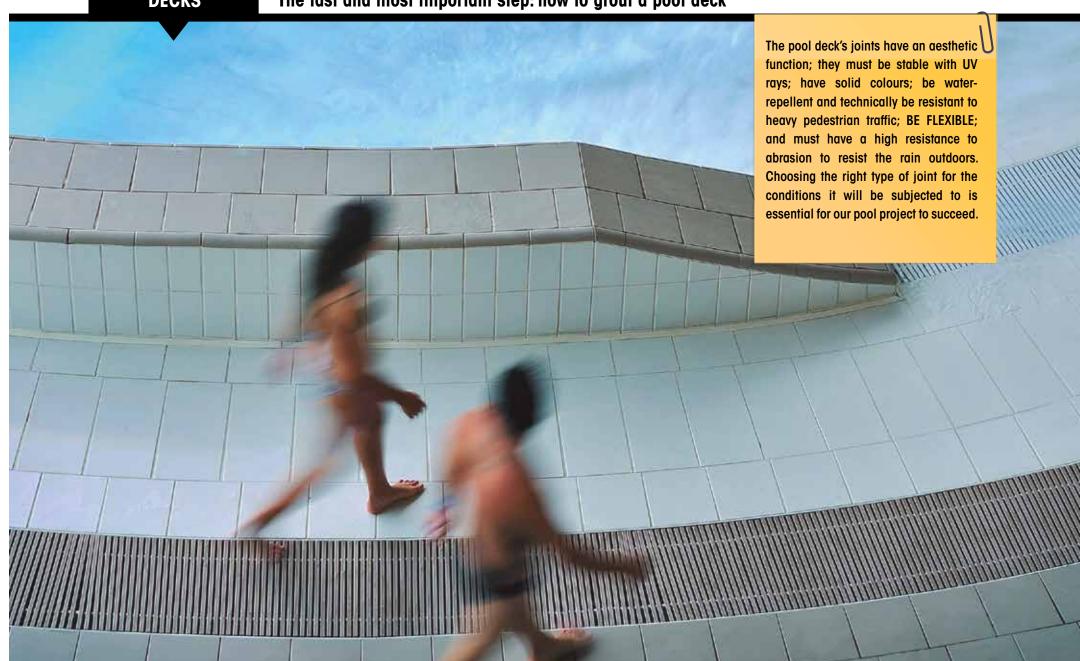
- ✓ Ready-to-use waterproofing: open the can and paint using a roller, a brush or an airless.
- ✓ Ideal for terraces, pool decks, shower plates and humid areas.
- √ 100% watertight and single-component.
- Quick drying.
- ✓ Must always be protected with a final covering of ceramic tiles.



SOLUTIONS FOR POOL DECKS

## **GROUTING THE ANTI-SLIP CERAMIC TILES**

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



#### FUROCOLOR FLFX



Coloured mortar, water-repellent and fungicidal.

#### IDFAL COLOR



HIGH-TECH mortar for sealing joints from 0 to 6 mm. Water repellent. Colors without stains or efflorescence.

#### CFRPOXI



**Acid-resistant epoxy** mortar, 100% watertight



Acid-resistant epoxy mortar, 100% watertight and very liquid.

- Single-component.
- Flexible. Fungicidal. Water-repellent. Super-fine.
- Available in 8 colours. Pre-dosed.
- Ideal for grouting 0-to-16mmwide joints on pool decks.
- Resistant against weak acid attacks.

- Single-component.
- ✓ Water repellent. Fungicide. Super-fine. Fast setting.
- Available in 34 colours.
- ✓ Ideal for grouting 0-to-6mm wide joints.
- ✓ Made with special hydraulic cement: colors without stains or efflorescence.

- √ 100% watertight.
- Pre-dosed.
- Available in 26 colours.
- Resistant against acid attacks.
- ✓ Ideal for grouting 0-to-10mmwide joints on pool decks.

- 100% watertight.
- Pre-dosed.
- Available in 26 colours.
- Liquid consistency, no running.
- ✓ Ideal for grouting 0-to-10mmwide joints on pool decks.



71

#### SOLUTIONS FOR POOL DECKS

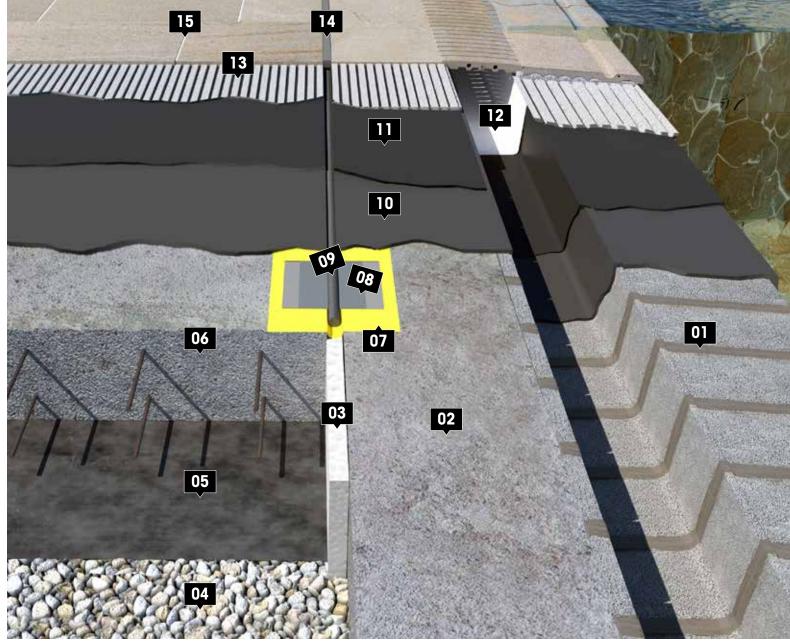
## **SEALING THE EXPANSION JOINTS**

How to elastically seal an expansion joint

The location and layout of the ceramic covering's expansion joints will always coincide with the location of a moving joint, as explained before.

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 solventfree.

#### **SELLALASTIC**



Highly elastic polyurethane putty

#### SELLALASTIC FOAM



Closed cell polyethylene foam cord.

#### 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**

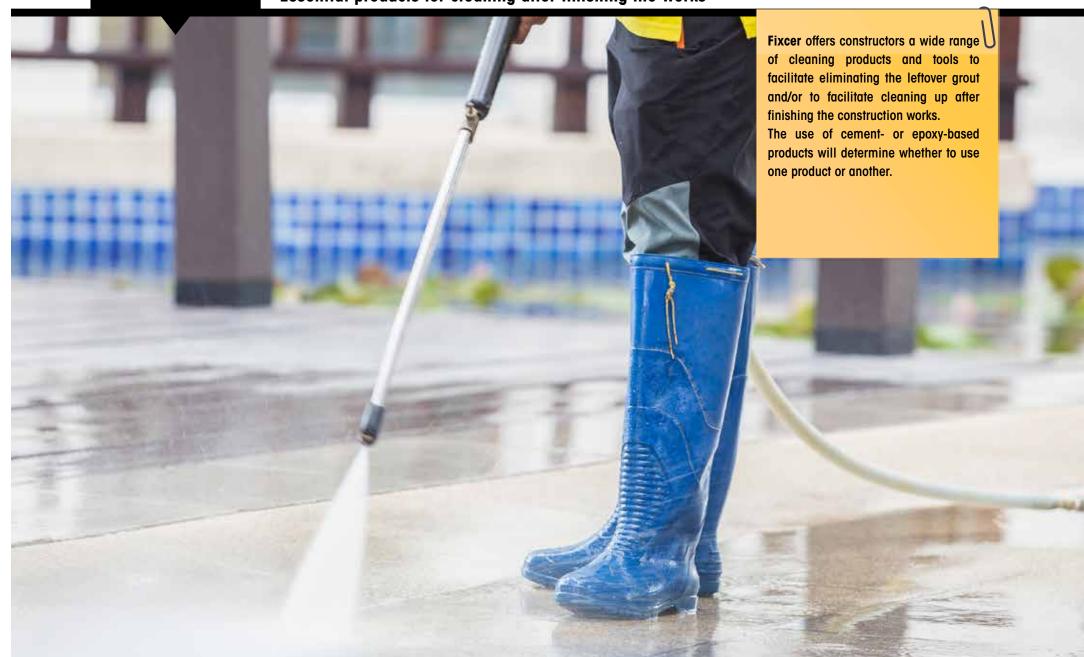


- Ideal for filling in expansion joints before sealing with elastic putty...
- ✓ With SELLALASTIC FOAM, the depth of a moving joint will never be larger than its width.

AUXILIARY PRODUCTS

## **CLEANING PRODUCTS**

Essential products for cleaning after finishing the works





#### EPOXINET



Unique blend of organic solvents for emulsifying the fresh epoxy leftovers with water.

#### **EPOXI CLEANER**



Cleaning detergent, extremely efficient for eliminating dry leftovers of epoxy joints.

#### **GRESNET**



with surfactants and corrosion inhibitors. Eliminates leftover cement and cement-based grouts stuck to the tile.

#### **FIX-SABO**



Multi-use degreaser, detergent, bactericide and fungicide for cleaning oil and grease stains ideal for periodic cleaning.

- The product to use while applying the epoxy joint.
- Facilitates eliminating epoxy from the paving and from the application tools.
- ✓ EPOXINET can be used diluted in a 3:1 ratio: 3 EPOXINET:1 water

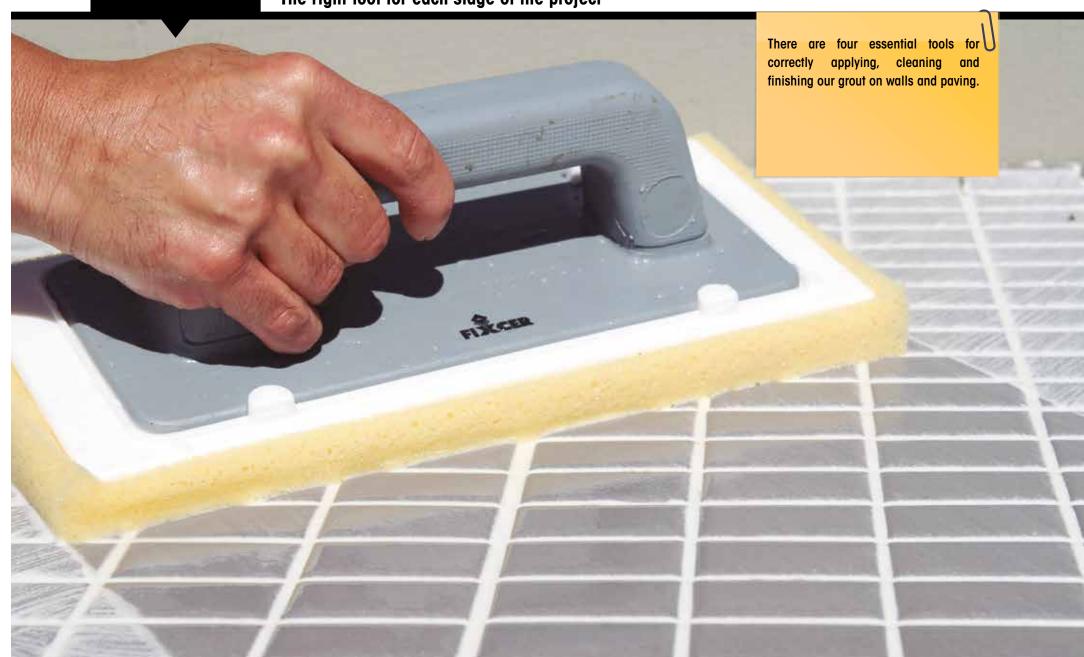
- ✓ Apply directly, leave for 10-30 minutes and remove the epoxy leftovers.
- ✓ Its gel-like texture facilitates cleaning vertical walls.
- ✓ Its transparent colour doesn't alter the colour of the joint.

- 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.

AUXILIARY PRODUCTS

## **GROUTING TOOLS**

The right tool for each stage of the project





# FIX- ESPATULA HARD RUBBER



A hard rubber trowel that facilitates completely filling in the joints.

# FIX-LLANA CLEANING TROWELL



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

## FIX-LLANA WITH SPONGE



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

#### **FIX-BUCKET**



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.

## CONCRETE

FISSURE	Small superficial opening that doesn't traverse the concrete.
CRACK	Opening that affects the whole thickness of the concrete, usually being wider and completely traversing the concrete.
CONCRETE	Construction material composed of sand, grit, gravel, water and cement as a hydraulic binder.
HUMIDITY FROM STEAM CON- DENSATION	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.
HUMIDITY FROM FILTRATION	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.

#### MOVING JOINTS

COEFFICIENT OF LINEAR THERMAL EXPANSION:	Quotient that measures a physical body's relative change of length when said body changes temperature.
CONTRACTION JOINT	Joint that subdivides large surfaces (ceramics and screed) into smaller panels. Its function is to absorb the movements caused by retractions, changes of temperature and mechanical loads.
EXPANSION JOINT	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.
STRUCTURAL JOINT	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.
STRUCTURAL WATERTIGHT JOINT	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.
PERIMETRE JOINT	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.

#### **MORTARS**

UNE 138002	Regulation that contemplates all "general rules for laying ceramic tile covers by adherence."
PRIMING:	Process by which a product is applied to a surface and then left to dry to later apply another product on top.
MORTAR:	Mix composed of aggregates, binders, water and additives with the right characteristics for complying with regulation EN998 on walls or EN13813 on paving.
BONDING BRIDGE:	Product applied to a surface upon which the next wet-on-wet product is applied before the first one dries.
REGULISING LAYER	Layer of mortar placed on a support to compensate for the variations of its flatness.

#### WATERPROOFING

EN 14891	Regulation waterproofing must comply with when using ceramic tiles as a final covering.
EN 1504	Regulation waterproofing must comply with when used to protect the concrete.
WATERTIGHTNESS	QUALITY BY WHICH A CONSTRUCTIVE ELEMENT IS PERFECTLY HERMETIC, KEEPING OUT SOLVENTS, AIR, SMELLS, ETC.
WATER-REPELLENCE	Concrete treatment for creating a water-repellent surface. This treatment doesn't form a continuous film on the surface it protects.
WATERPROOFING	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.
ELASTIC WATERPROOFING	Waterproofing that recovers its original shape when the force altering its shape disappears.
FLEXIBLE WATERPROOFING	Waterproofing that can deform if submitted to a transversal tension.
OSMOSIS	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.
NEGATIVE PRESSURE	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).
POSITIVE PRESSURE	Force per unit of surface exerted by water against waterproofing, when said waterproofing is in direct contact with the structure it protects.

## CEMENT GLUES

ADHERENCE	Maximum force per unit of surface that can be measured by traction or shear resistance, identified with the letter C.
NO RUNNING	Property of an adhesive that prevents tiles placed on a vertical surface from sliding down, identified with the letter T.
TRANSVERSAL DEFORMATION	Deformation registered in the centre of a layer of hardened adhesive subjected to a three-point load, identified with the letter S.
DOUBLE GLUING	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.
EN12004	Regulation bonding materials must comply with to be used for placing ceramic tile coverings.
FLEXIBILITY	Ability of a hardened adhesive to deform with the tension between the tile and the placement surface.
FAST SETTING	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.
POT LIFE	Longest time span during which an adhesive can be used after having been mixed.
OPEN TIME	Longest time span after applying the adhesive during which the tiles can be laid and still comply with the adherence specifications.

## JOINT MORTARS

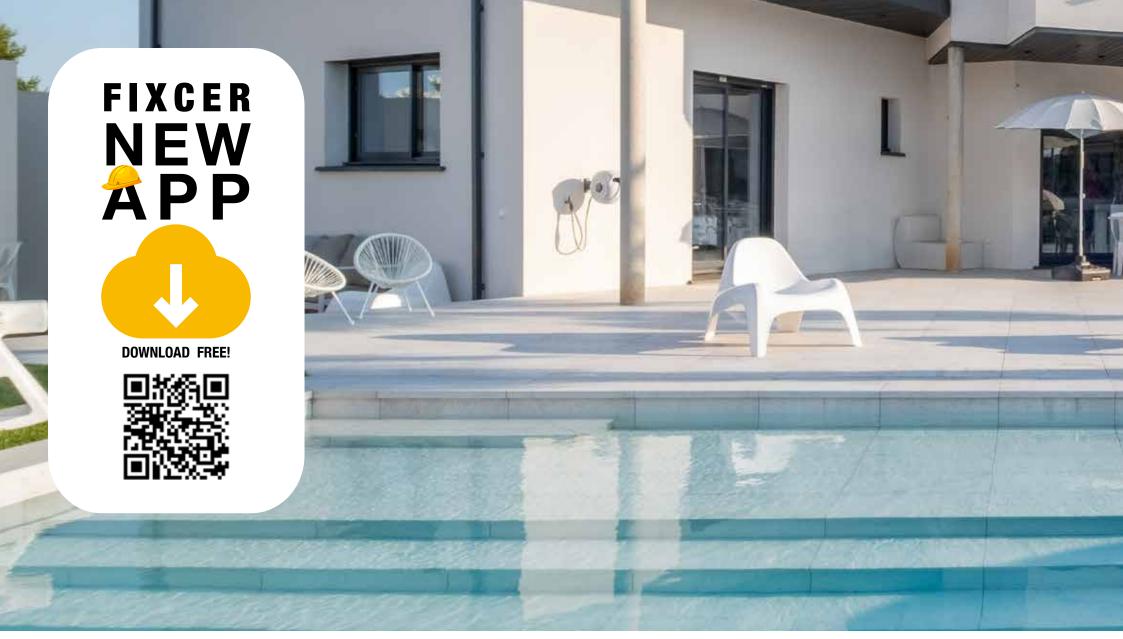
EN13888	Regulation joint mortars must comply with when used for sealing ceramic tile coverings.	
FUNGICIDE	Chemical or biological substance used for preventing, inhibiting or eliminate fungi or mould.	
GRANULOMETRY	Study of the distribution of the different dimensions of a compound, e.g., aggregates. A mortar is considered very fine when, for instance, none of its components is larger than 150 microns.	
CHEMICALLY RESISTANT GROUT	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.	
voc	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.	

## **PURIFICATION SYSTEMS**

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/lt. 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.

## OTHER TERMS

PROCTOR TEST	Laboratory test used to determine the relation between the moisture content and the dry unit weight of a compacted terrain.
PILING	Deep foundation technique that consists in embedding pilings into the terrain, seeking the most resistant stratum, in order to bear the loads transmitted by the structure that needs sustaining.
PILINGS	Iron or reinforced concrete elements embedded into the terrain to transmit the load-bearing.





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