GURU
waterproofingproducts®

INSTALLATION GUIDE

WATER-STOP

Installation in swimming pools

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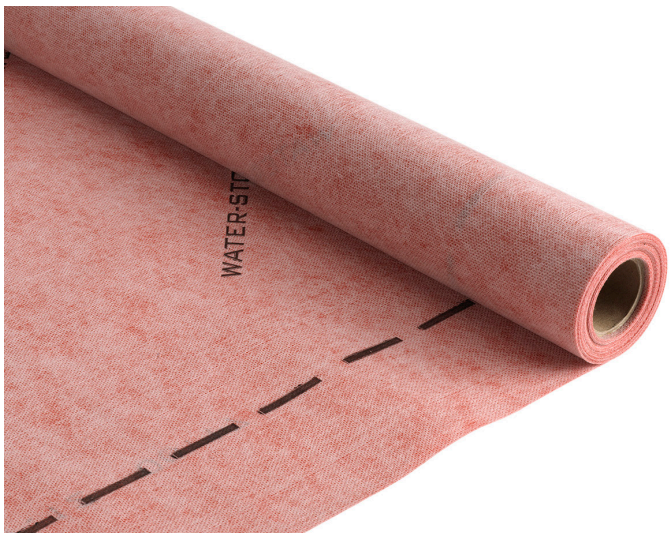
DESCRIPTION



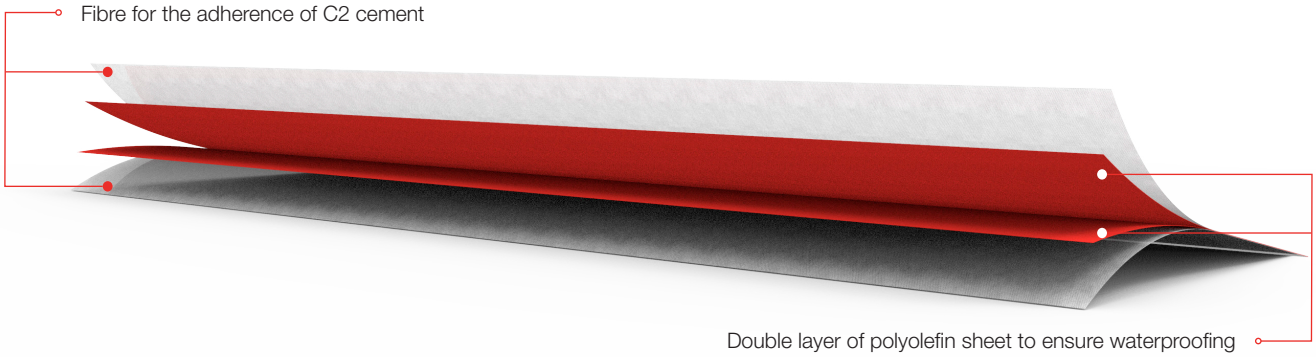
The WATER-STOP membrane and its range of accessories constitute a quick and easy system and waterproofing solution under coating in new builds or pool renovations.

The membrane is made up of a multi-layer structure that bridges small cracks, absorbs the stresses of the joint between the coating and the substrate and reduces problems such as peeling and carbonation, thus contributing to ensure the integrity of the pools. One of its main advantages over its competitors is the ease of installation (as a single person can do it). Another is the durability of the waterproofing.

• STRUCTURE

WATER-STOP is a waterproof elastic geotextile membrane with a very good grip on surfaces and with a very low thickness due to its exclusive multilayer extrusion process.

It is formed by a double sheet of thermoplastic polyolefin obtained by extrusion that provides waterproofing and is coated on both sides of non-woven synthetic fibres that provide the grip. Total thickness: 0.57 mm.



• PROPERTIES

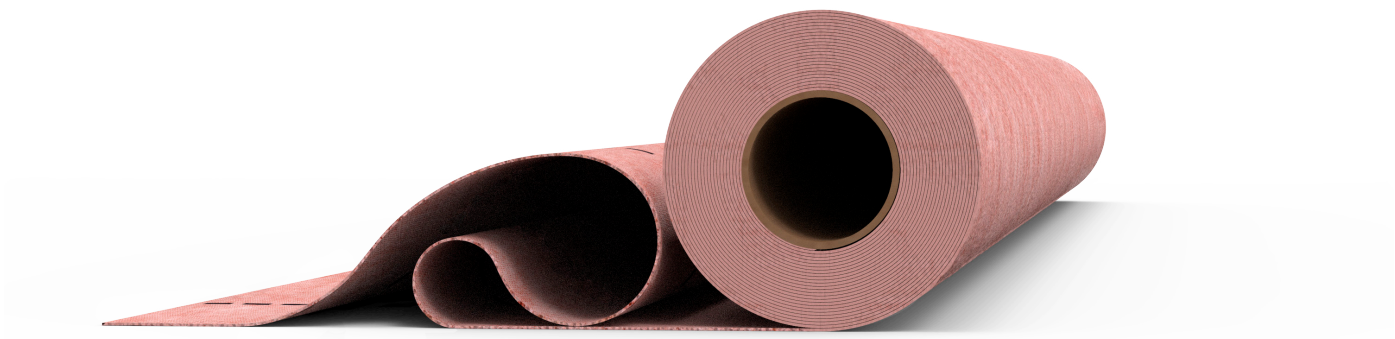
Easy accession

Adaptability to support

Vertical restraint

Large formats

Minimum installation height



MEASUREMENTS AND ACCESSORIES

• AVAILABLE SIZES

ROLL 1 x 5 m
Weight: 1,6 kg - Surface: 5 m²

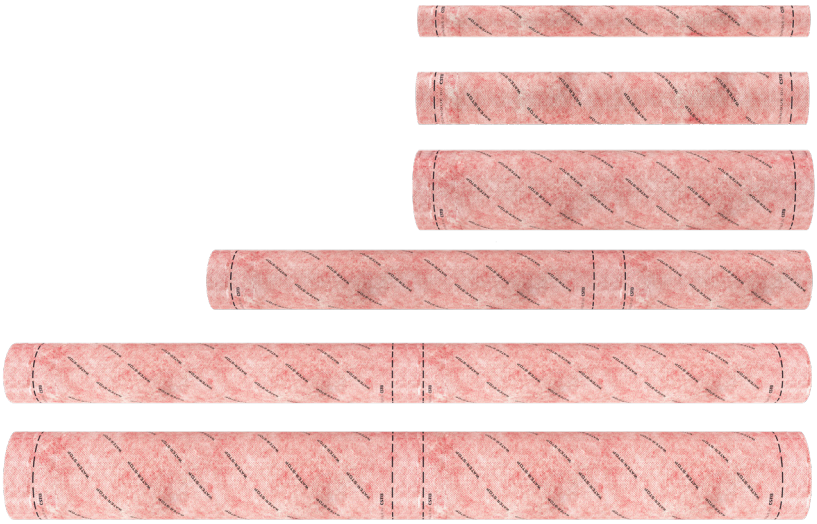
ROLL 1 x 10 m
Weight: 3,2 kg - Surface: 10 m²

ROLL 1 x 30 m
Weight: 8,7 kg - Surface: 30 m²

ROLL 1,5 x 20 m
Weight: 8,7 kg - Surface: 30 m²

ROLL 2 x 20 m
Weight: 11,7 kg - Surface: 40 m²

ROLL 2 x 40 m
Weight: 23,4 kg - Surface: 80 m²



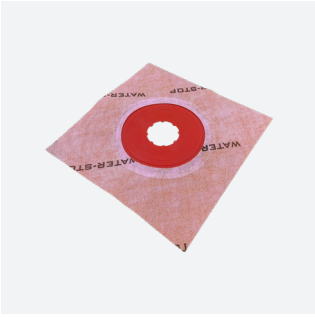
• ACCESSORIES

The WATER-STOP membrane system is completed with transformations of its membrane in the form of moulded bands and pieces in addition to other functional items.

W-S DIN
Inner corner strengthener 90º.

W-S DEX
Outer corner strengthener 90º.

W-S TUB
Pipe reinforcement.



SAFETUB
Adaptable pipe reinforcement. 3 types available.

BANDA W-S 14: 14 x 20 m
BANDA W-S 34: 34 x 20 m
Reinforcement and ends at meeting points between vertical walls and joints.

W-S BUTYL
Two-sided adhesive sealing tape for joints. Measurements: 5 x 10 m.

MASTIC
High-module MS polymer adhesive sealer/ 290 ml can.

EASEAL
Mono-component modified polymer mortar (PCC) Elastic and flexible waterproofing material. 3 kg bucket 20 kg sack

APPLICATION

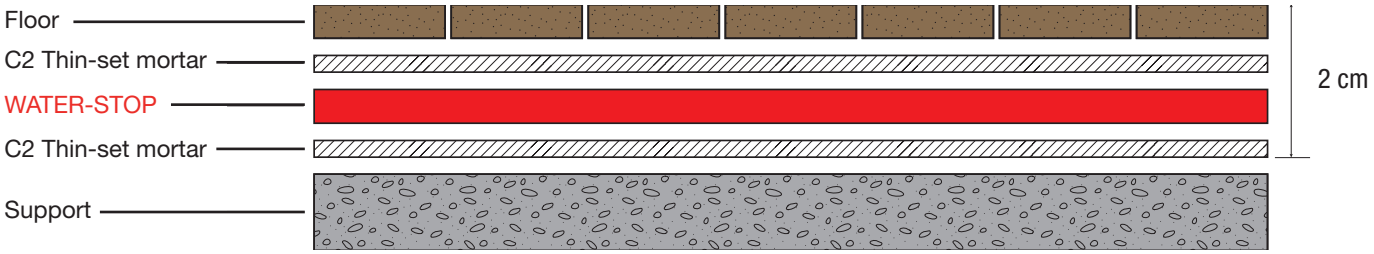
• PREPARING THE SUBSTRATE

The surface of the substrate must be completely smooth and uniform, be set and dry, without peaks, holes or cavities, sharp edges or bumps greater than 1 mm and lack of foreign bodies. The flatness tolerance is 5 mm with the 2 m ruler.

Check whether there is any subsidence or different levels, lack of cohesion or fissures.

» New substrate

If they are **insulating plates**, they must be fitted end-to-end and without gaps between them. If there are **inclines**, they must be not less than 1% and not more than 5% towards the water evacuation elements and have sufficient cohesion and stability under mechanical stresses. If it made of **cellular concrete** or **expanded clay** it will have to be finished with a layer of mortar between 1.5 and 2 cm thick with a dosage of at least 250 kg/m³.

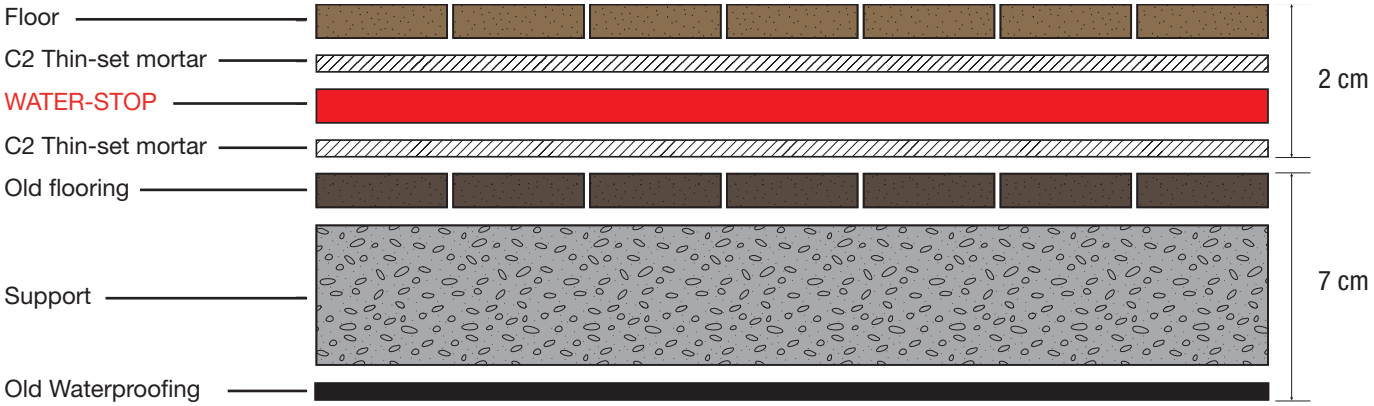


» Old substrate

Inspect the support by a visual and, if applicable, sound examination (listen for a hollow sound) to determine the areas of the old coating to be preserved, treated or eliminated. Check for subsidence or differences in level, lack of cohesion, fissures, poorly adhered or broken pieces.

Repair and remedy with appropriate structural repair mortar. If the old coating is to be preserved, prepare it by plastering, levelling and surface treatment applying primer if the type of substrate requires it.

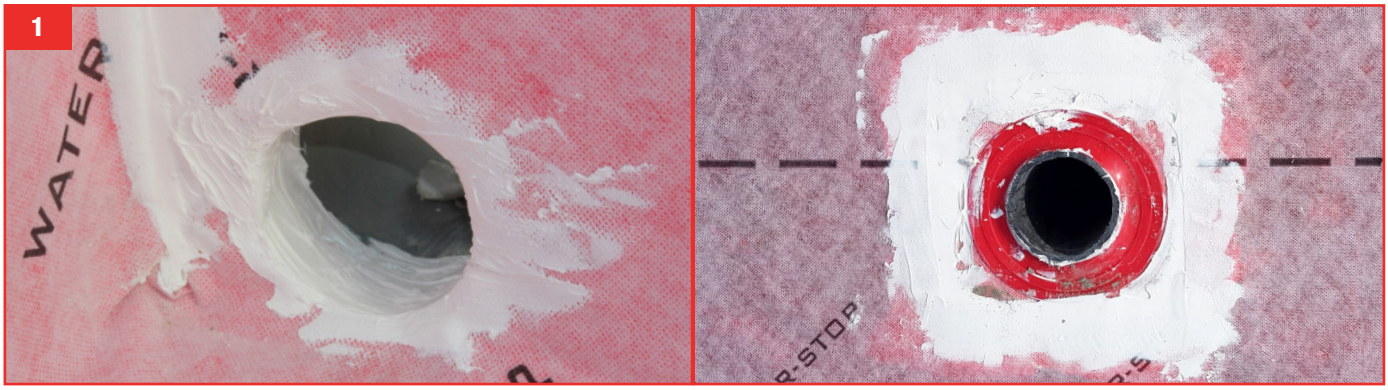
Clean off any dust carefully just before the installation of WATER-STOP.



INSTALLATION

• APPROACH AND FITTING OF THE SHEET

Waterproofing work should not be carried out when weather conditions could be adverse, particularly when it is snowing or there is snow or ice on the roof, when it is raining or the roof is wet, when the wind speed is over 60 km/h or when the ambient temperature or that of the substrate exceeds the limits recommended for each product by its manufacturer (see data sheets for each product).



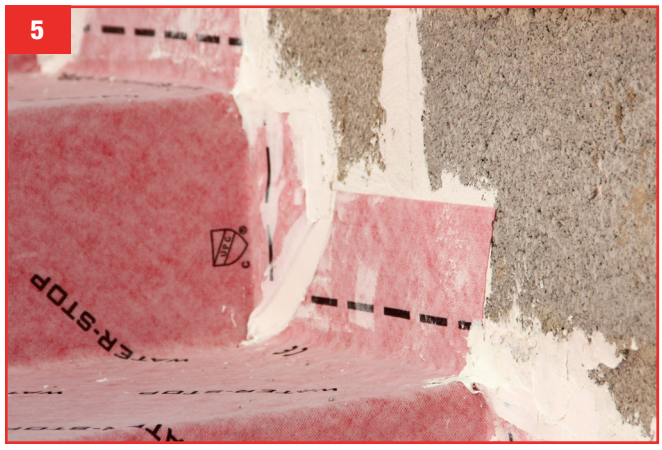
1. Before treating the outflows to drains, sources, skimmers, nozzles and other drainage elements, a reinforcement of the waterproofing must be made at the mouth and around the element of about 15 cm. For this purpose, use SAFETUB pipe reinforcements.

2. Cut the requisite pieces of WATER-STOP with the appropriate dimensions and shapes to fit the element to form an inner coating.

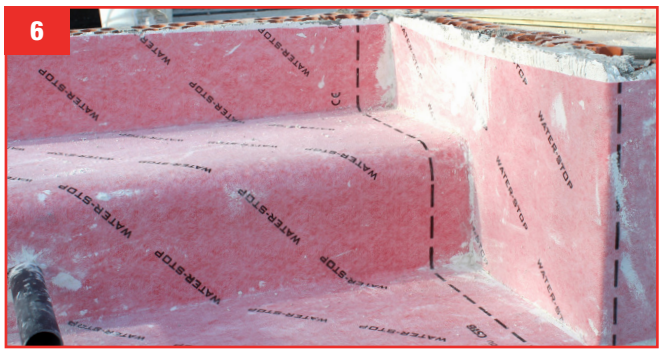
3. To glue the membrane to the substrate use adhesive cement rated as C2 as per the standard UNE EN 12004 preferably deformable (TES2) and suitable for the substrate.

4. If we do the walls first to preserve the floor, we must bear in mind that the sheet to be laid on the floor must go up no less than 10 cm on the walls under the sheet fitted on them, so they must be left unglued for the moment 10 or 15 cm from the base of the walls.

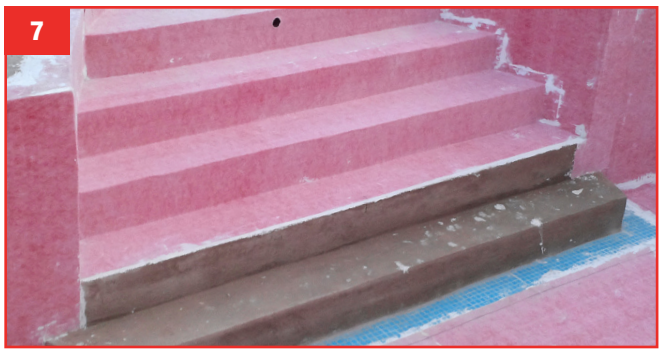
The outflow in the upper part will be achieved preferably under the crown pieces. If this is not possible, carefully seal the edge of the sheet with epoxy putty suitable for use in pools.



5. The corners and angles are adjusted by cutting towards the vertex and gluing the sheet over itself with putty such as W-S MASTIC, with W-S BUTYL or with waterproof polymeric cement EASEAL.



6. The staircase is waterproofed using a single piece that covers the steps like a carpet. On the walls, the sheet of each step should be extended about 10 cm, from the tread upwards and from the riser towards the front, forming a plinth. A cut needs to be made at each vertex to be able to fold the membrane.



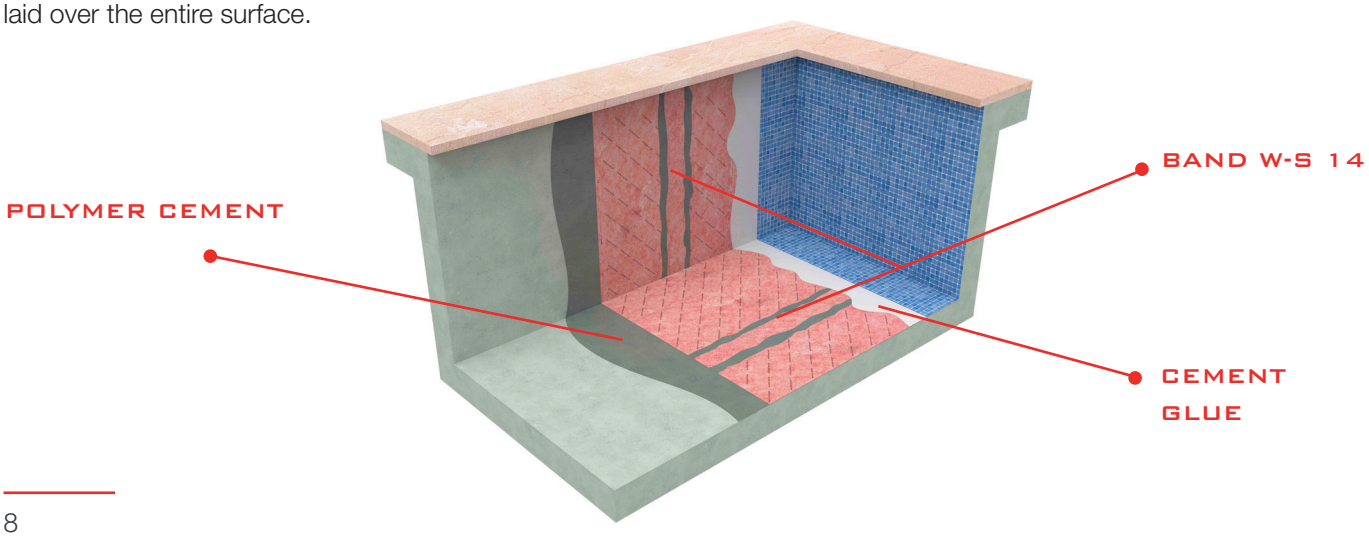
7. If it necessary to make a joint between sheets, it must match the foot of a step and overlapping on the tread. The sheet on the walls of the staircase is also cut at each vertex to adapt it to the shape and overlap horizontally and vertically on the tread and counter-tread.

8. The cement is applied to the substrate using a toothed trowel measuring at least 4 x 4 x 4 mm. En general, the approximate yield is 2 to 2.5 kg/m². Leave an overlap of at least 15 cm between sheets. This is indicated by the dotted lines on the sides of the sheet.

• JOINTS AND OVERLAPSETWEEN SHEETS

The joints between sheets, both on the floor and on the walls, are preferably made end-to-end and with a joint cover using W-S BUTYL and BANDA W-S 14. Each is placed fully extended edge to edge with the adjacent sheet, without overlapping. The joints are covered with a strip of W-S BUTYL and the centred BANDA W-S 14 is placed on top of it.

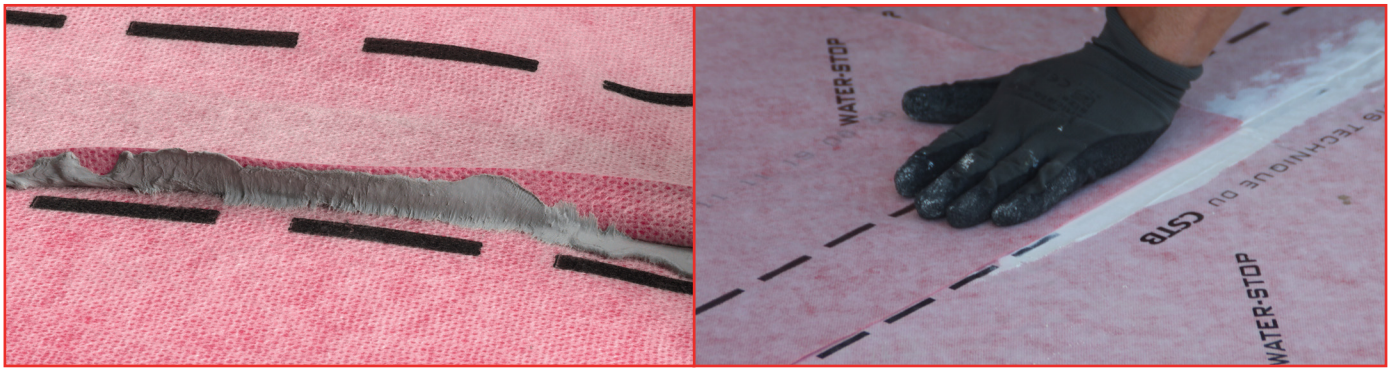
The pieces must be laid in such a way that no joint between any pieces when extended is aligned with other joints. The gluing and sealing of the band that covers the joint and the overlapping flaps should be done after the membrane has been laid over the entire surface.



INSTALLATION

» Glue joins with W-S BUTYL adhesive sealing tape:

Especially recommended in facilities with water load such as swimming pools and fountains. Butyl is a very good sealant under pressure although it is not a strong adhesive. The tape is applied in combination with cement to reinforce gluing in joints with a gasket.



1. Place the W-S BUTIL tape over the gasket with the protective paper facing up and apply pressure on it using a manual silicone roller or the smooth face of the trowel to expel any air that may be trapped underneath. Pressing with your hand will not suffice. You have to use a roller or other hard, blunt object to apply pressure.

2. Place the W-S BAND 14 centred on the tape.

3. Remove the protective paper by pulling from the tip perpendicularly and evenly, aiming to prevent air bubbles from entering. Press the band with your hand as you remove the paper.

4. Press on the joint with the manual roller above the belt first through it and then along it.

5. About 5 cm of the W-S BAND 14 will remain unattached to each side of the joint that will be closed later by gluing them to the sheet with C2 cement.

6. Floor-wall overlaps with a width of 10 cm are closed in the same way; with W-S BUTYL applied inside the overlap and finished off with cement.

» Joint with impermeable polymer cement EASEAL.

Prepare the waterproof cement following the instructions indicated on the product.

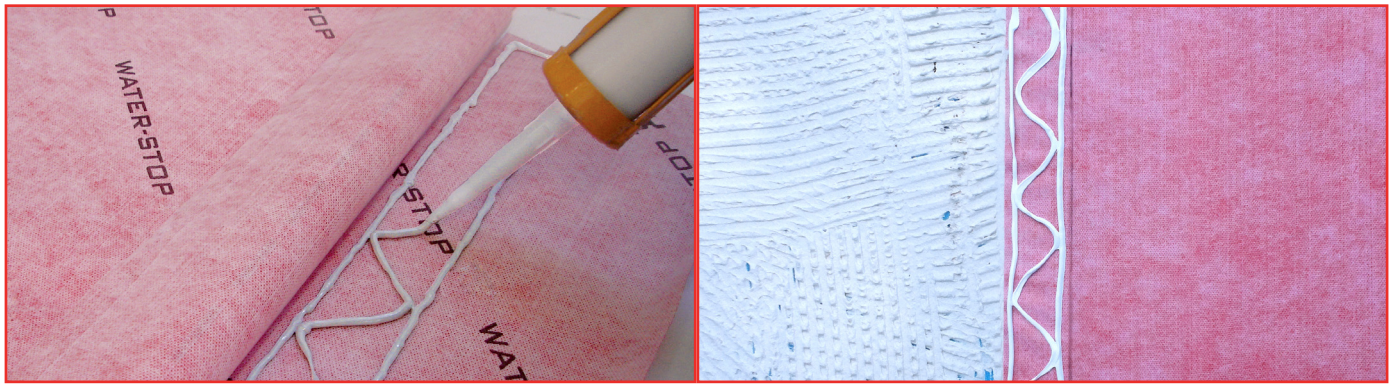
1. Using a trowel or brush, apply the cement, spreading it in a layer of 1 to 2 mm thick on the area to be covered with the band.

2. Cover with the band and press with the trowel towards the edge to eliminate any air and achieve an even gluing.

3. Spread the excess material that protrudes on either side or add adhesive if necessary to form a 1 mm thick sealing layer on the edge of the joint taking care to smooth it and not leave bumps. The estimated yield is between 200 and 300 gr per linear metre of band.

» Glue joints with adhesive putty and W-S MASTIC sealant

Prepare the cannula to have a bead diameter of 3 to 4 mm.



1. On each side of the joint line between sheets, apply a bead of putty and a second bead parallel to the outer edge of the area to be covered with the band.

2. Apply another zig-zag bead between them to obtain a greater contact surface.

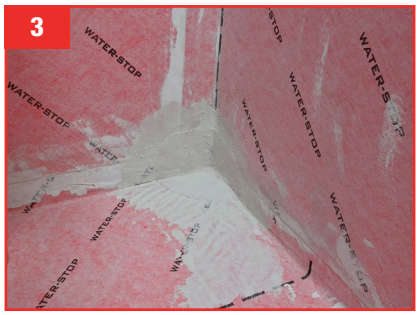
3. The beads must be continuous, if you come across breaks or stops, resume the bead line from 1 cm before.

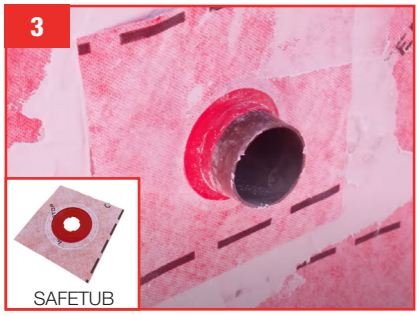
4. Cover with the band and press with the trowel towards the edge to eliminate any air and achieve an even gluing.

5. Spread the material that protrudes from the band or apply if necessary a bead of putty to form a sealing layer on the edge of the already glued joint and smooth it with a moistened finger. The estimated yield is between 2 and 3 linear metres of overlap per 290 ml cartridge.

• CHECK OF CRITICAL POINTS

Finally, all the critical points are checked and the seal is reinforced with putty such as W-S MASTIC, W-S BUTYL or with waterproof cement EASEAL applying SAFETUB and W-S DEX and W-S DIN corners.



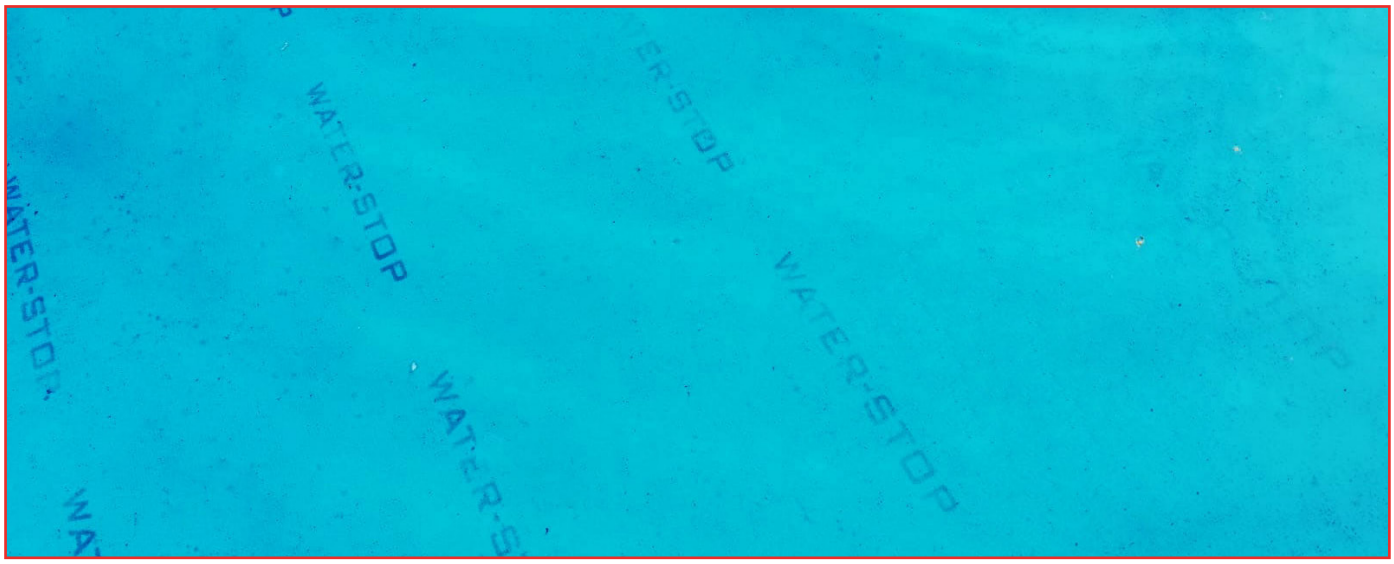


In addition to the steps, the corners are also used in the inner and outer corners of the perimeter in the upper edges of infinity pools and in the bottom wall meetings points if they form regular 90º angles.

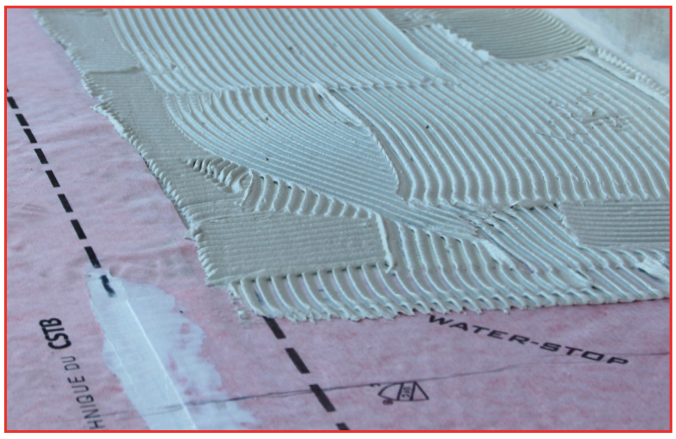
Check and secure the sealing of the sheet delivery to the crown, to the drainage elements and all joints.

• COATING AND COMMISSIONING

Once the sealing of the critical points has been checked and ensured, a water test must be performed to check that there are no faults. Wait 24 to 48 hours for the sealing material to cure.



Once it has passed the water test, and any loss of watertightness has been dealt with, place the tiling or surface by gluing it directly on top of WATER-STOP. Use C2-rated adhesive cement as per the standard UNE EN 12004, preferably deformable (TE S1 or S2) and suitable for use in pools.



Wait at least 24 hours for rejoining. After the rejoining, carry out a final seal of the outflows to drainage and embedded elements.

WATER-STOP

Description: Plastic membrane (EVA C) with non woven on both sides, for outdoor and indoor waterproofing.

Installation: Under tiling and bonded by thin-set mortar.

Normative References: EN 13956:2013

Manufacturer: Estil Gurú S.L.U. **Factory code:** 966-J

CHARACTERISTICS	METHOD	UNIT	TOLERANCE	VALUE
Watertightness	EN 1928	-	-	Pass
Reaction to fire	EN 13501-5	class	-	E
Tensile strength (MD // CMD) * 1				
Maximal tensile force (MD // CMD)	EN 12311-2 (A)	N/50 mm	-	≥200 // ≥200
Elongation (MD // CMD)	EN 12311-2 (A)	%	-	≥50 // ≥80
Resistance to root penetration				NDP
Resistance to static loading	EN 12730 (B)	Kg	-	≥20
Resistance to impact	EN 12691 (A)	mm	-	≥500
Resistance to tearing (MD // CMD)	EN 12310-2	N	-	≥75 // ≥100
Join resistance				
Join peeling resistance	EN 12316-2	N/50 mm	-	NDP
Join shear resistance	EN 12317-2	N/50 mm	-	≥230
Flexibility at low temperature	EN 495-5	ºC	-	-20
UV stabilization	EN 1927	class	-	NDP

*1 **Test direction: MD - Machine Direction // CMD – Cross Machine Direction**

Additional information

Visible defects	EN 1850	m	-	Pass
Length	EN 1848-2	m	+5%	5 // 20 // 30
Width		m	-0,5% // +1%	1 // 2
Mass per unit of surface	EN 1849-2	g/m2	-10 // +15	270
Thickness		mm	-0,03 // +0,06	0,57
Rectitude	EN 1848-2	mm	-	≤10
Flatness		mm	-	≤10
Dimensional Stability	EN 1107-2	%	-	≤2
Water vapour transmission properties:				
Humidity resistance factor (μ)	EN 1931 (B)	-	-30% // +30%	8.039
Vapour diffusion (sd value)	EN 1931 (B)	m	-30% // +30%	3,2
Water vapour diffusion resistance (Z)	-	MN·s/g	-	16

Barrier against vapour according to C T E requirements - DB HS 1 (Z > 10 MN·s/g)

WARRANTY

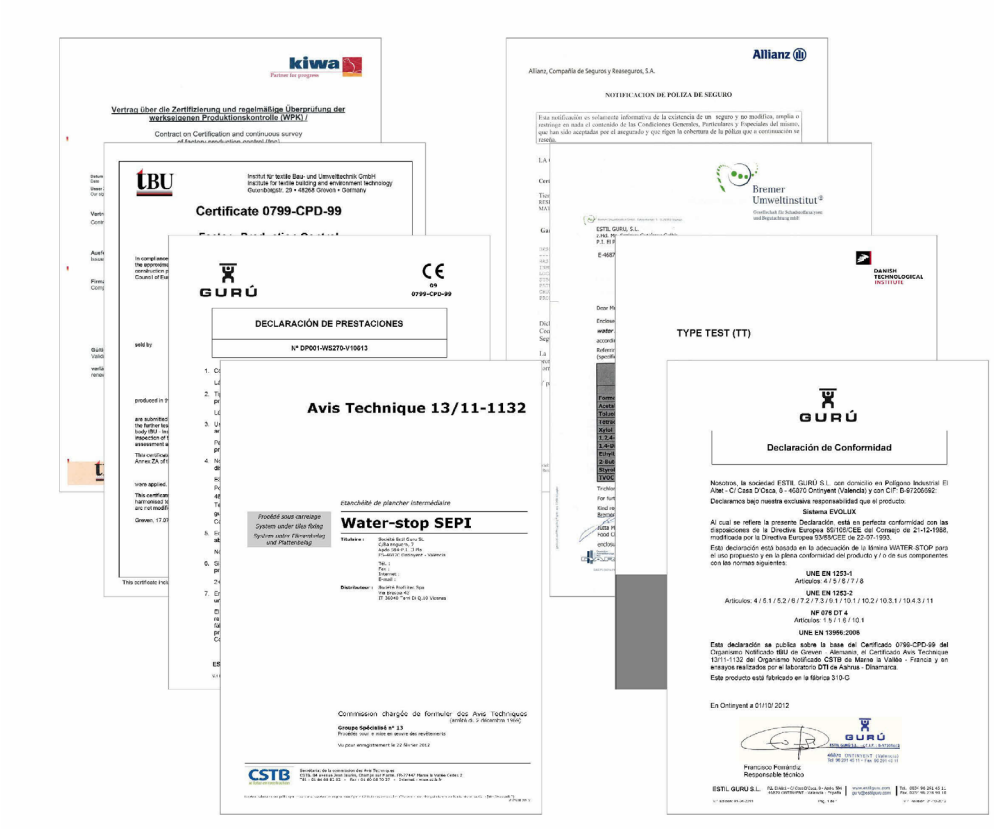
Estil Gurú S.L.U. as a manufacturing company of waterproofing systems guarantees the quality and performances of its products.

Estil Gurú, S.L.U. guarantees that **WATER-STOP** waterproofing membranes meet the technical and regulatory specifications that are applicable, specifically those derived from the standard UNE EN 13956:2012.

WATER-STOP membranes have the CE marking in compliance with the standard UNE EN 13956:2013 and produce a minimum level of VOCs (volatile organic compounds).

The suitability of WATER-STOP membranes for the proposed use in waterproofing floors with water evacuation is certified by the Technical Suitability Document - Avis Technique No. 13/14-1258 issued by the French notified body the CTSB.

WATER-STOP membrane waterproofing systems come with a 10-year manufacturer's warranty certificate backed by a civil liability Insurance Policy.



Supporting documents, declarations and certifications are available in the download section of the website www.estilguru.com and can be requested by email from our customer service department at: **atencionalcliente@estilguru.com**

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