

drainage membrane for terraces and balconies

folodrain™ 8

**Resistant
Efficient
Inexpensive
Easy to work with**



Most terraces, balconies, outside steps and tiled areas can suffer damage caused by the presence of water in the concrete substrate. Water seeps inevitably through the screed and flows down due to gravity to eventually stagnate on the waterproofing layer.

Water seepage in the concrete, owing to external factors, generally leads to two notable effects:



In cold conditions floor coverings break due to the swelling of concrete caused by the presence of ice within the substrate, which means a consequent rise in the volume of stagnant water.



Rises in temperature during the summer months provoke an upward flow due to the evaporation of water which carries cement salts to the upper external surface thus leaving unpleasant efflorescence stains. This phenomenon is also a clear sign of the progressive deterioration of the cement screed that will daily lose its cohesive properties to eventually become plain sand.

The new **FOLODRAIN 8** drainage system, combines good performance of resistance to loading with a high draining rate thanks to its special shape.

Its three-dimensional structure enables it to withstand both static and dynamic forces due to walking and transport stresses which occur during installation. It is extremely resistant to compression, traction, impact and puncture; it confers a perfect mechanical protection on the existing waterproofing layer with an increase in thickness of only 8 mm.

FOLODRAIN 8 particular section has been conceived with a double channel for drainage and hydrostatic pressure compensation, both at the screed and waterproofing level.



The problem

The only adequate solution to prevent damages commonly suffered by outside tiled areas, is to allow an easy run-off of the water which has seeped into the concrete substrate.

A free but controlled drainage of seepage water will be ensured by simply laying FOLODRAIN 8 membrane on the normal waterproofing layer, installed with a proper slope, and laying then a traditional screed onto the matting before tiling.

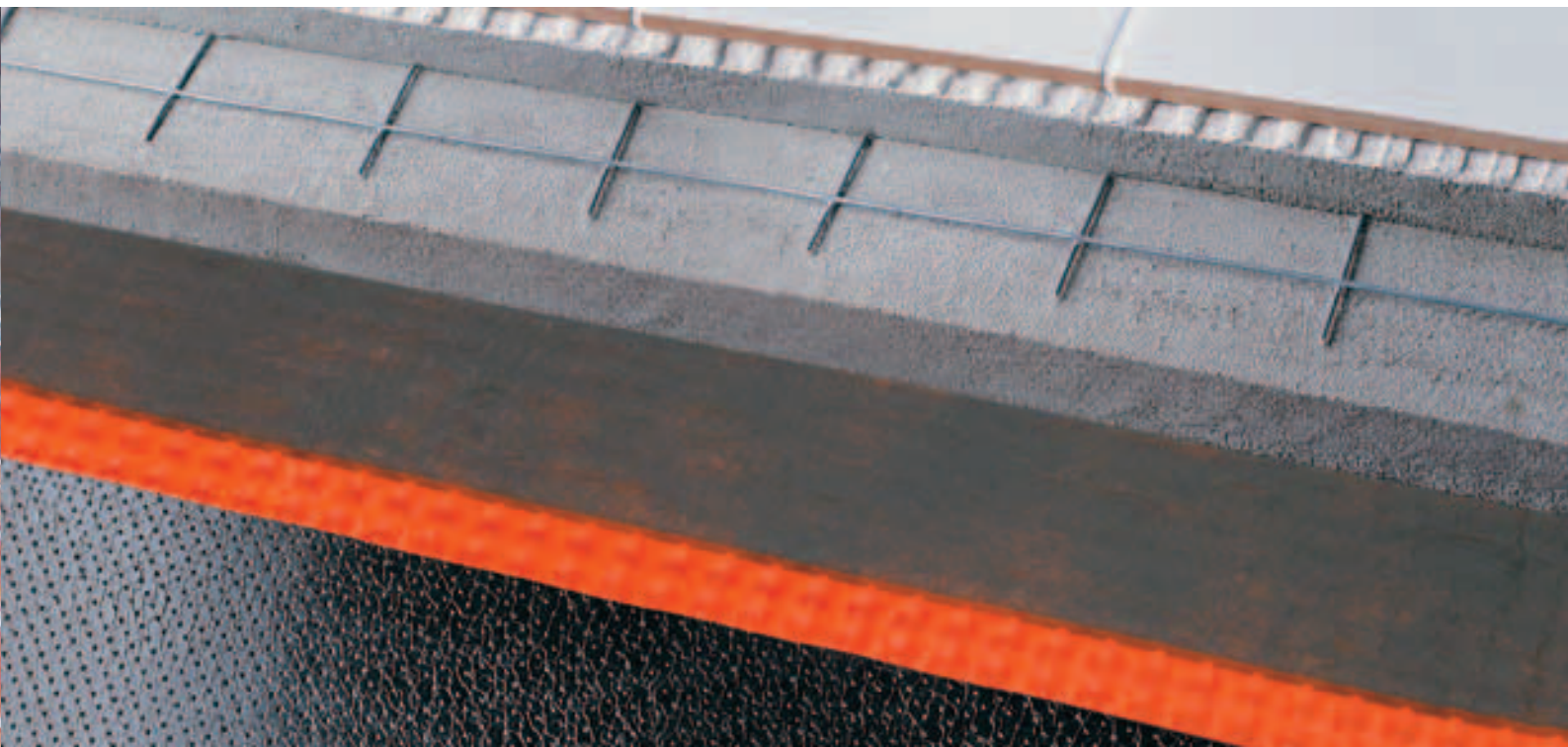
Advantages of installing FOLODRAIN 8 system:

- Extends the life of external tiling
- Protects the traditional waterproofing layer
- Reduces structural damage, preventing unsightly stains and tiles loosening
- Removes the problem of water vapour pressure and the consequent cracks and swelling it causes
- Provides thermal-acoustic insulation with an air cavity of 8 mm.

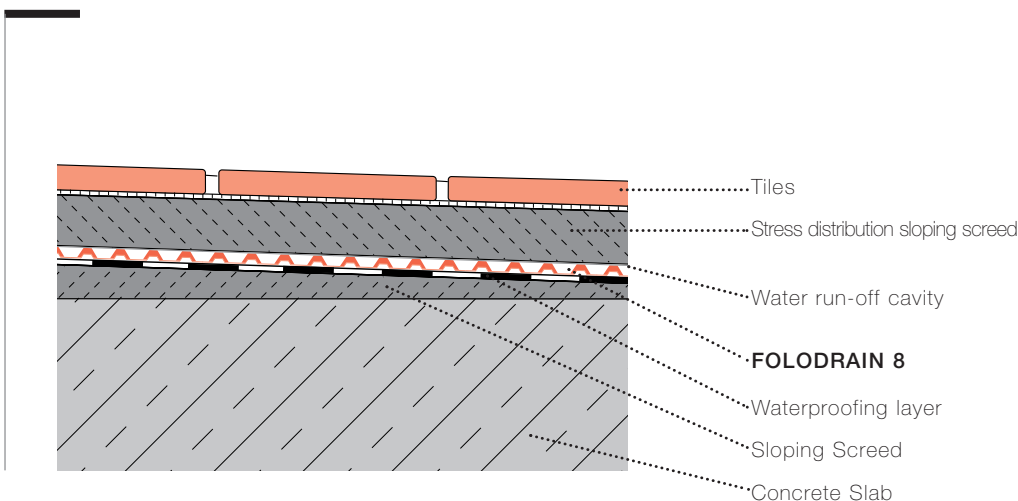
FOLODRAIN 8 helps prevent claims for damages or rebuilding of degraded external tiled floors.

As a confirmation of the importance of the drainage systems installations, we quote part of the standard DIN 18 195 PART 5 § 5,4:

“Water seeped at the waterproofing level should be granted a continuous and efficacious run-off, realizing proper technical building devices such as inclined planes”.



The solution



general instructions for installation

folodrain™ 8

FOLODRAIN 8 drainage system does not require specifically skilled workers for application. Its laying is very simple.

FOLODRAIN 8 can be easily cut with normal shears, bent and shaped to follow surface contours.

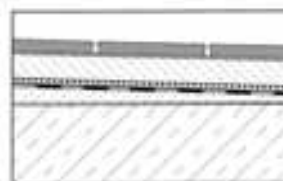


Make sure that the surface to be tiled has a minimum slope of 1 to 2%.

Ensure that any existing water proofing layer is sound and water drain pipes position is adequate for water "run-off".

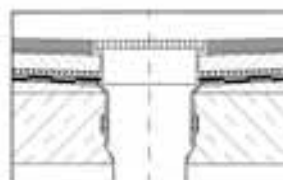
Place **FOLODRAIN 8** onto the waterproofing layer with its coloured side downwards and the geo-textile grey part facing up. Lay screed onto the matting and tile as normal.

Provide installation of a proper network of expansion joints, adequate to the surface to be tiled.

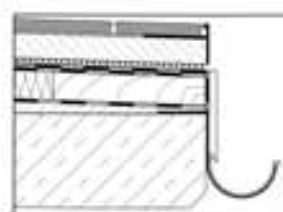


Tile covering on a cement screed with waterproofing and "**FOLODRAIN 8**" draining system.

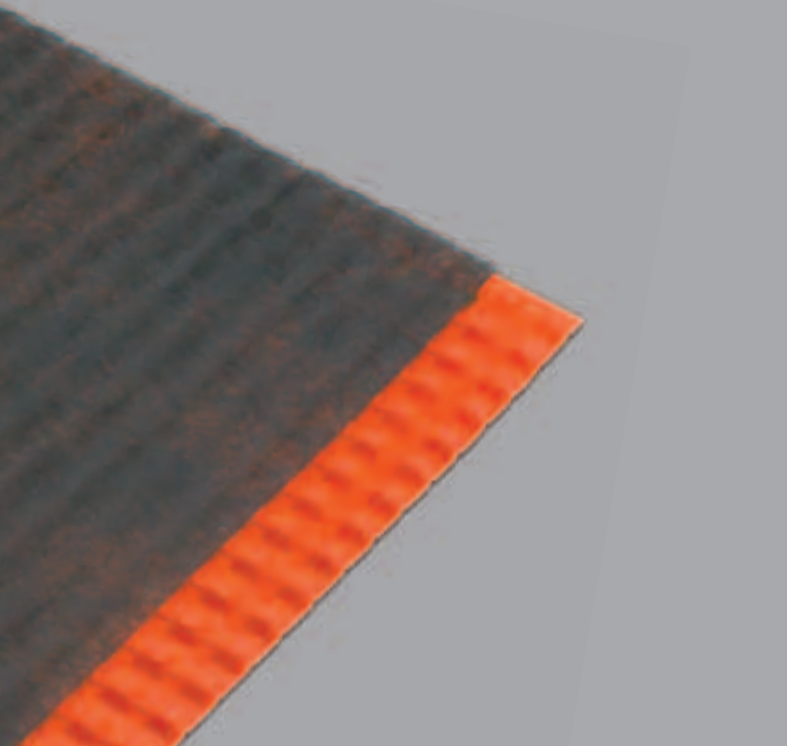
(note the sloping system)



Drainage of the tiled surface through the downspout, conveying also the water seeped through "**FOLODRAIN 8**" membrane.



Example of a balcony edge finishing, with the installation of FOLOBORDER cement corner protection profiles.



Roll: H 1,0 m x 15 m. Tot. 15 m²
 Roll weight: 9,2 Kg
 Pallet: 9 rolls
 Membrane thickness: 8 mm



Physical Characteristics	Test Method	units	FOLODRAIN 8
Geo-membrane polymer	-	-	HDPE
Geo-textile polymer	-	-	PP
Colour	-	-	ORANGE MASTER

Dimensional Charact.	Test Method	units	FOLODRAIN 8
Unit weight	ISO 9864	g/m ²	613
Membrane thickness	ISO 9863	mm	0,5
Geocomposite thickness	ISO 9863	mm	8,0
Roll Height	-	m	1,0
Length	-	m	15,0
Diameter	-	m	0,40
Volume	-	m ³	0,16
Distributed loading resistance	-	Kg/m ²	2200

Technical Charact.	Test Method	units	FOLODRAIN 8
Flow rate at hydraulic gradient i=			100% 3% 2% 1%
σ 0,1 Kg/cm ²	ASTM D4716	l/min/m	249,0 35,0 28,6 16,5
σ 0,2 Kg/cm ²	ASTM D4716	l/min/m	246,0 34,6 28,3 16,3
σ 0,5 Kg/cm ²	ASTM D4716	l/min/m	242,4 33,8 27,6 15,9
σ 1,0 Kg/cm ²	ASTM D4716	l/min/m	238,2 32,9 26,8 15,5