

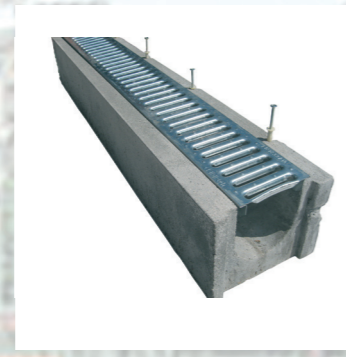
## Accessories



1 T-STRIPE

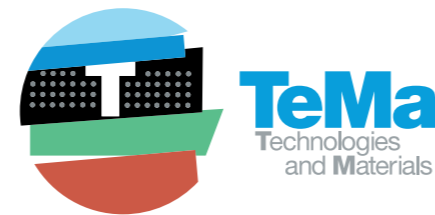


2 TEMAPUR Football



3 T-KANAL  
T-GRILL  
T-FIX

- T-Stripe e Temapur Football for the junction of the synthetic turf rolls and the insertion of the marking
- T-Kanal: drainage channel c/w locking grating for the perimetric drainage



### Tema: Building and Environmental Technologies and Materials



There are basically two aspects to building construction and environmental engineering: the visible aspect, which is largely aesthetic, and the invisible which includes structural elements, protection, maintenance and safety. **Tema** has been working in the latter for more than 10 years and has excelled with its original application solutions (often highly competitive), its innovative technology and its use of new materials.

**Tema** operates modern production facilities in Italy, Spain, Turkey and Russia. On every single day of the year its products are being used in more than 60 countries where it is a major market player, bringing drainage and insulation solutions and products to housing and commercial buildings.

Just as much a feature of its operations are the innovative solutions especially developed for large-scale environmental projects: as a matter of fact **Tema** offers the widest, most comprehensive range of drainage geocomposites and three-dimensional anti-erosion geomats.

Other features of **Tema's** operation are its continuous new product research, ongoing cooperation with designers and building companies and pre-sale and post-installation support to clients.

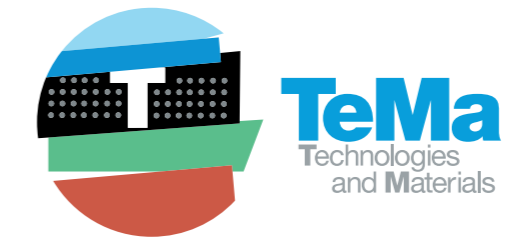
Cover: Sports ground in Zen

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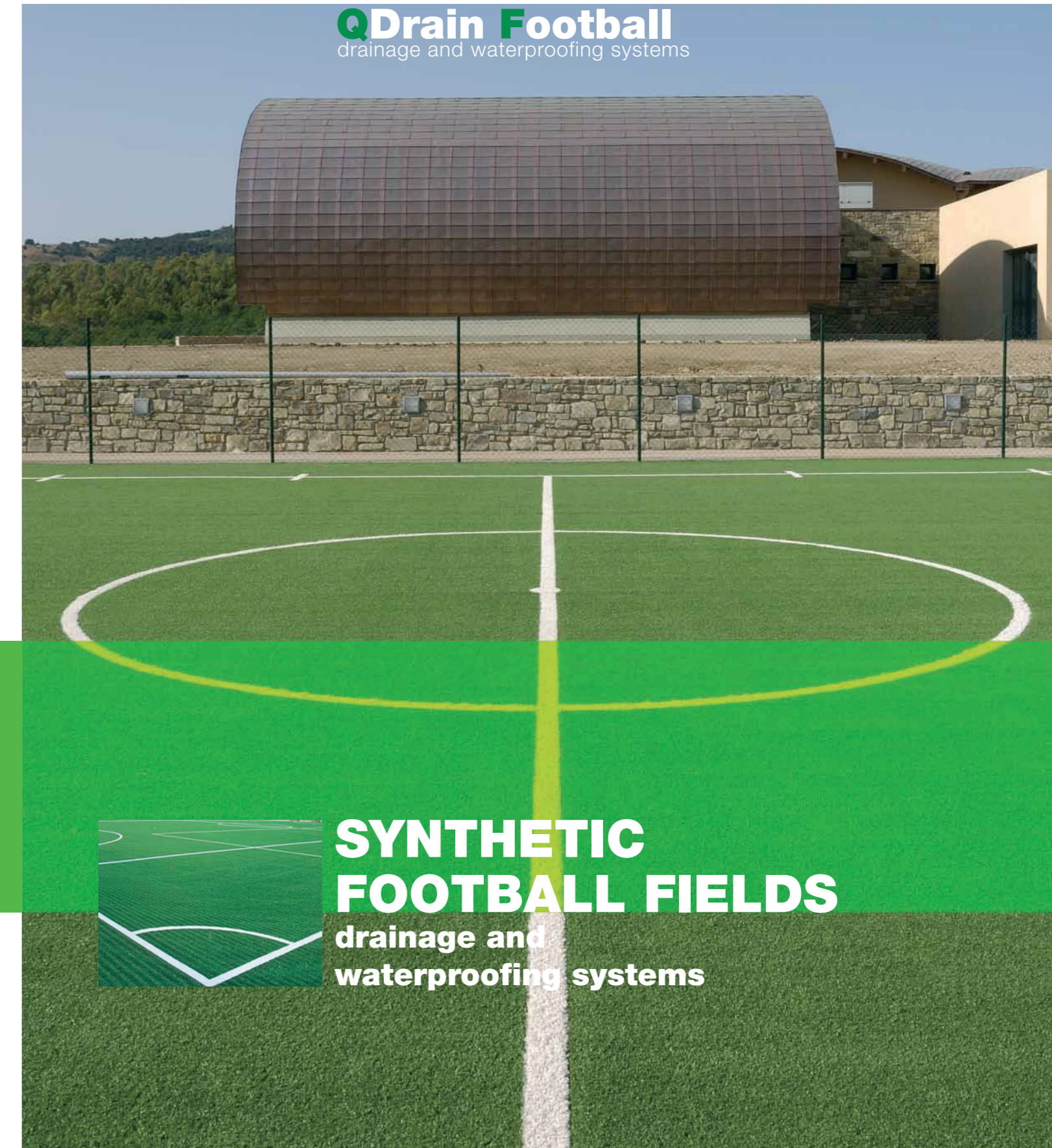
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**QDrain Football**  
drainage and waterproofing systems



**SYNTHETIC  
FOOTBALL FIELDS**  
drainage and  
waterproofing systems



## Perfect and lasting solutions for the drainage of the synthetic football fields

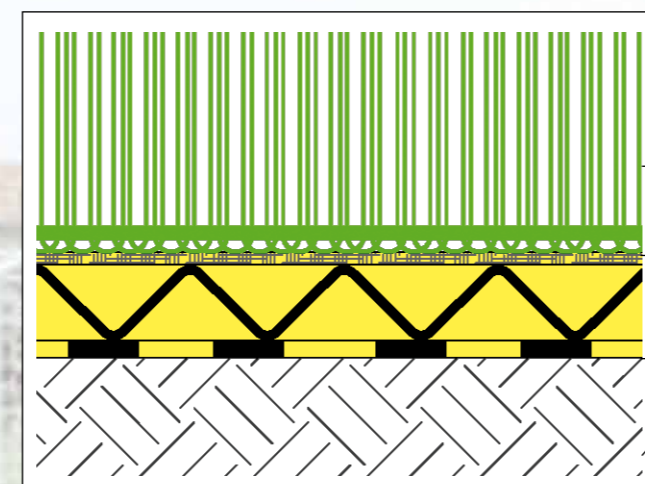
### ADVANTAGES

- Extraordinary draining characteristics equal to 950 cm of gravel\*
- High compression resistance
- It allows the temporary transit of quite heavy vehicles while laying the synthetic surface (i.e. small tractors) and afterwards, during the life of the field (i.e. ambulance)
- Easy and cheap to be transported, may be stocked outside even in bad weather conditions and is easily laid.
- Provided with the Certificate in accordance with the New Norms F.I.G.C. - L.N.D.
- Provided with the CE mark as requested by the late Ministerial Decrees regarding the construction materials

\* Value established at i=0.04 and 20kPa. We deduce that 30 cm of gravel (i=0.04 and 20 kPa of loading) drain 31 times less than QDrain Football.



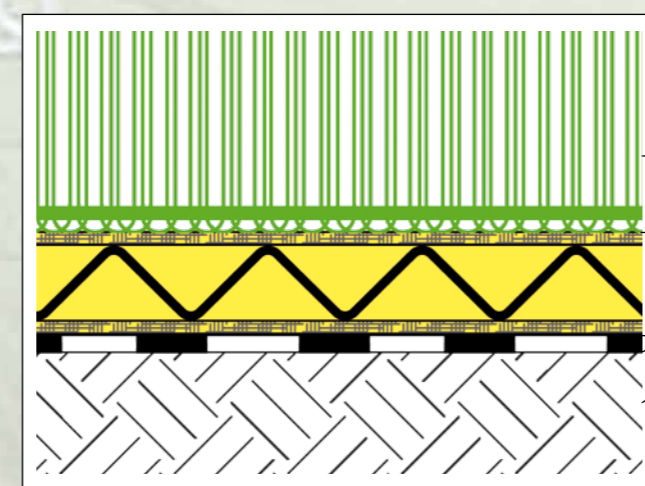
## Stratigraphies and constituent details



**HORIZONTAL DRAINAGE SOLUTION SECTION OF GEODRAIN ON A COMPRESSED SOIL**

1. Artificial turf
2. **Geodrain with longitudinal channels joined to a waterproof membrane for the horizontal drainage and the waterproofing.**
3. Soil, as it is or modified by the addition of suitable materials (max 10 cm)

**Suggested product**  
Q-DRAIN ZW8 WP Football

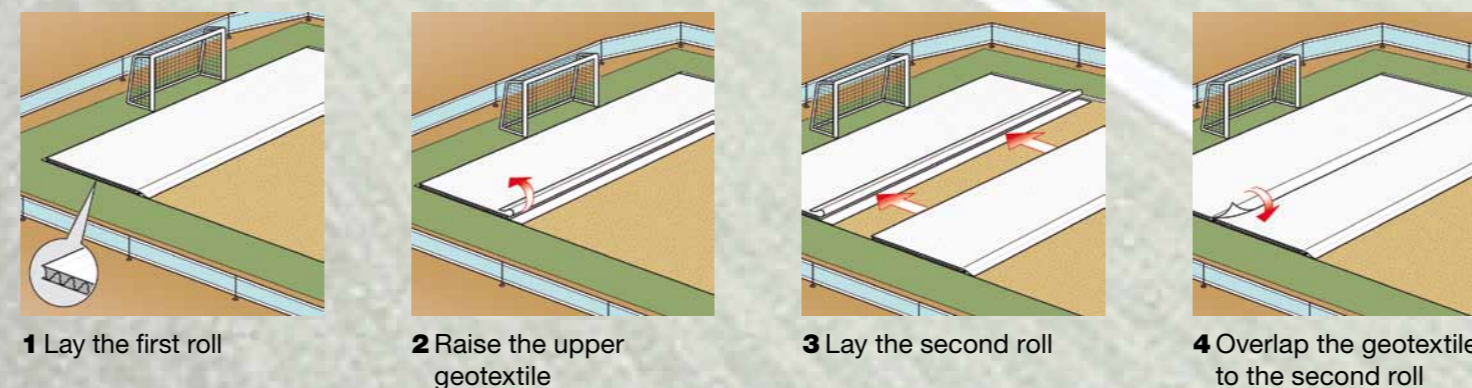


**HORIZONTAL DRAINAGE SOLUTION SECTION OF GEODRAIN ON A COMPRESSED SOIL**

1. Artificial turf
2. **Geodrain with longitudinal channels for the horizontal drainage**
3. Waterproofing membrane
4. Soil, as it is or modified by the addition of suitable materials (max 10 cm) having a well compressed surface

**Suggested product**  
Q-DRAIN ZW8 Football

### STAGES IN THE LAYING OF Q-DRAIN ZW8 FOOTBALL



- 1 Lay the first roll
- 2 Raise the upper geotextile
- 3 Lay the second roll
- 4 Overlap the geotextile to the second roll

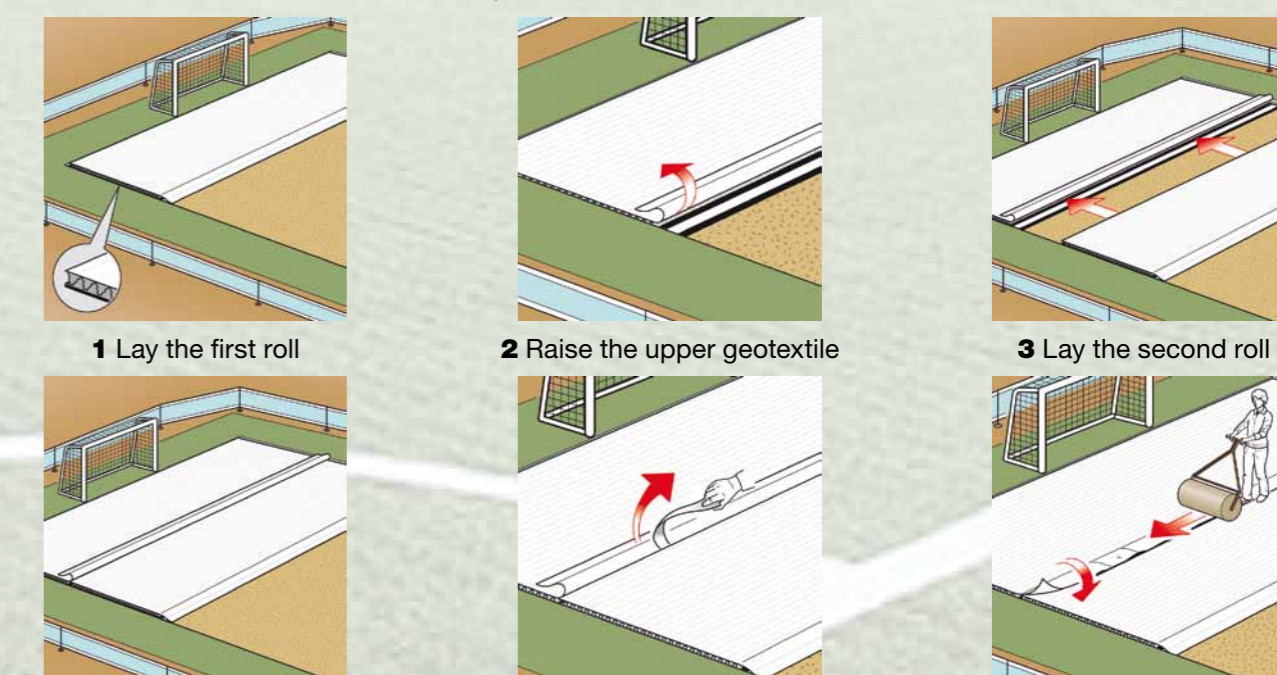
## Which of the two solutions would you prefer to use on a 8.500 m<sup>2</sup> football field?

**1m<sup>2</sup> x 950 cm gravel = 1m<sup>2</sup> Q-Drain Football**

	Draining bed 30 cm of gravel	Draining bed QDRAIN FOOTBALL	QDRAIN Football enables you to save good money
Cost of excavation and disposal of the soil	25.500€	0€	+25.500€
Transport cost of the materials to the building site	63.600€*	1.000€	+62.600€
Laying costs	4.240€	560€	+3.680€
Cost of the materials	38.250€	59.500€	-21.250€
<b>TOTAL</b>	<b>131.590€</b>	<b>61.060€</b>	<b>+70.530€</b>
N° of trucks necessary for the work to be carried out	212	1	+211
Times of execution	15 gg**	1 gg	14 gg**

\*Hypothesis where a truck of gravel costs 300 € and a truck of Q-Drain Football costs 1000 €. \*\*Value that may vary according to the availability of the gravel

### STAGES IN THE LAYING OF Q DRAIN ZW8 WP FOOTBALL



- 1 Lay the first roll
- 2 Raise the upper geotextile
- 3 Lay the second roll
- 4 Line up the second roll to the first
- 5 Take the siliconized paper off
- 6 Overlap the geotextile to the second roll and press to increase the adhesion between the two rolls and guarantee a perfect waterproofing