



# FlexBase

Very stable sub base for every sport and recreational use  
Durable  
Little or no maintenance  
Multiple-usage possibilities of space

## FlexBase Light

**The need for sport and recreational facilities will increase strongly in the years to come. A lack of space in the Dutch urban area of the Randstad means that these facilities are often built in areas with poor subsoil. An additional problem is that public places have no space for desirable water storage and alternatives must be looked for on private land.**

### **Choosing the right sport system**

A sports field that is intensively used must always satisfy the stipulated requirements as regards the technical side of sport and reliability. In addition, its frequency of sports activity must be as high as possible and the maintenance costs per hour of use must be as low as possible.

### **Characteristics**

In recent years, interest for artificial turf fields has increased explosively. The sub base used is, for a large part, the determining factor for the final characteristics of the artificial turf field:

- flatness (maximum unevenness of 7 mm)
- vertical deformation of 4-10 mm
- shock absorption of 55-70%

- lifespan > 5 years
- climate, water-retaining capacity and water carrying

### **The FlexBase Light System**

FlexBase has a lot of experience in developing innovative sub bases for artificial turf fields. Together with the selected supplier of the sports technical layer, the artificial turf field is laid according to the required standards. Agreements have been made in this regard with the certification authorities, ISA and Intron. The FlexBase Light sub base comprises EPS plates, which are covered on both sides by fibreglass-reinforced fabric. For the required water discharge, discharge holes can be made in the sub base, which do not damage the load-bearing capacity,

the stability and the buoyancy.

The FlexBase Light system is based on creating a balanced situation in the sub base, thereby creating a buoyant sports field and avoiding undesirable subsidence. An additional advantage is that this solution facilitates the storage of water under the sports field.

### **Lifespan**

The application of a FlexBase Light sub base prolongs the lifespan of the sports field considerably. The annual levelling of the sports field is also no longer necessary.

### **Water management**

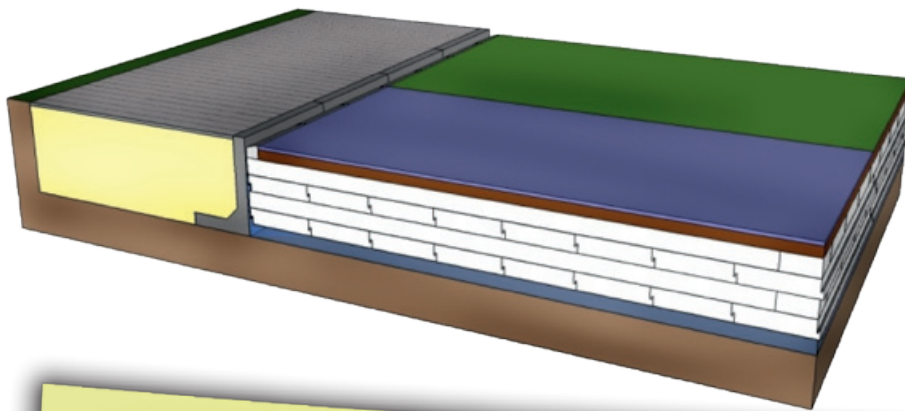
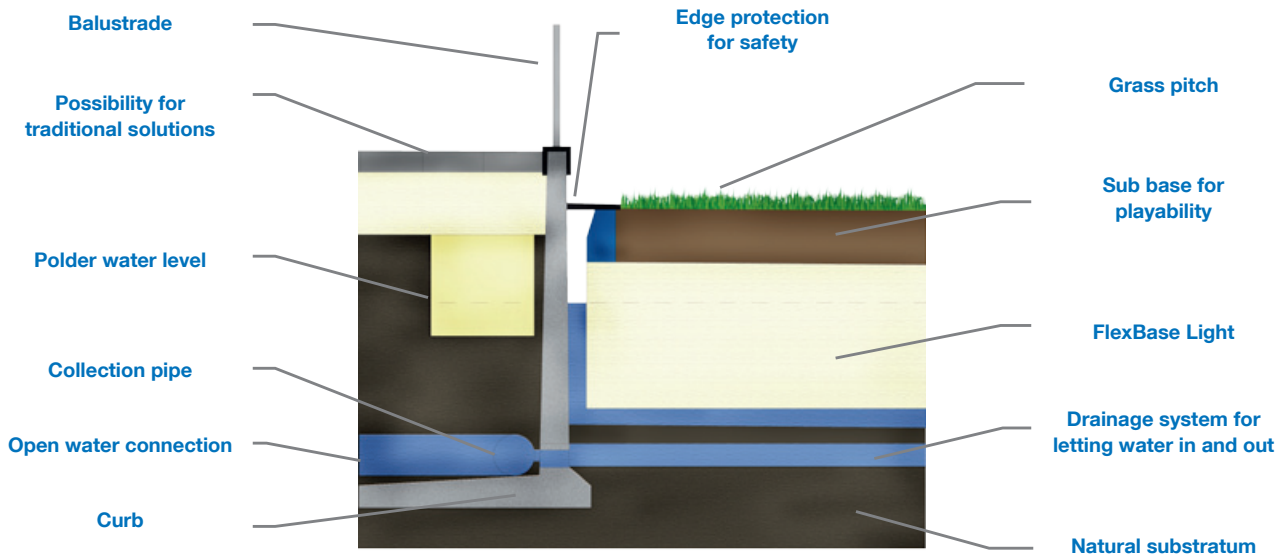
Some urban areas have to create more than 50,000 square meters of extra water storage.

There is insufficient space for this in the public places. This problem can be solved in two ways: traditional or innovative water storage. To make the right decision, the following criteria must be considered: employability, environment, accessibility, water

quality and added value. Innovative water storage generates big savings, as the high costs of land acquisition for traditional water storage are no longer necessary. Water storage under sport and recreational fields means low investment costs

and a high storage capacity. The FlexBase Light concept realises both a stable sub base and the possibility of water storage. This actually results in dual land use.

### Principle construction



### Calculation example

**Problem definition**  
 Water storage requirement:  
 20,000m<sup>3</sup>  
 where in the current situation a  
 traditional solution of 3,200m<sup>3</sup>  
 is present.  
 Extra water storage must be  
 found for the other 16,800m<sup>3</sup>.

**Traditional solution**  
 With surface water  
 Land acquisition for a  
 traditional solution  
 16,000m<sup>2</sup> = € 9,700,000  
 average € 600/m<sup>2</sup>

**Innovative solution**  
 Possible water storage under a  
 sports park, tennis courts and a  
 golf course: 16,000m<sup>3</sup>.  
 Cost for innovative techniques  
 incl. FlexBase = € 5,600,000

**Saving of € 4,100,000**

**FlexBase** Post address: Loseweg 150, 7315 HB Apeldoorn, The Netherlands

**T** +31 (0) 316 200 032 **M** +31 (0) 651 202 933 j.w.roel@flexbase.eu **www.flexbase.eu**