



**3rd GENERATION SAND/RUBBER FILLED SYNTHETIC SURFACES**  
**FOR FOOTBALL AND RUGBY**

***The latest innovation for synthetic grass surfaces***

The increasing market demand for surfaces that specifically match the playing performance of natural grass has led to the development of new forms of artificial grass purposely designed for football.

SoccerTurf (UK) Ltd offer a range of surfaces for football and rugby which have a much longer pile than the standard range and are partially filled with a rubber and sand mix. These surfaces offer players of all standard enhanced playing qualities.

**The system**

A synthetic turf system is made up of several components each of which contributes to the quality and performance of the entire system.

**Backing**

The backing of a carpet is the material to which the yarns (synthetic turf fibres) are attached. A good backing contributes to the life span of the synthetic turf pitch. A backing of insufficient quality will, over time, cause the pitch to warp. At SoccerTurf (UK) Ltd we use only the highest grade components available to ensure our backing adds to the quality of the finished products.

Our primary backing cloth has an integral fleece layer, which ensures that there is minimum distortion of the synthetic grass. Our *unique* latex secondary backing allows natural drainage of up to 10 times the minimum recommended rate giving a surface which is quickly clear of water.

Our backing has No punched holes, which are potentially damaging to the yarn and backing cloth and allow the migration of sand through the carpet, increasing the likelihood of poor drainage, the growth of moss/algae and movement of the synthetic grass over the shock pad or tarmac.

Our *unique* backing system ensures that the adhesive applied to the seaming tape sticks to the horizontal portions of the stitches and the backing cloth.

Heavier secondary compounds used by other manufacturers are bulked with chalk or clay, which once damaged or split can allow water to penetrate, causing the secondary backing to delaminate from the primary backing.

**Infill material**

Synthetic turf systems for football are filled with a mixture of sand and rubber granules. The main function of the sand is to provide weight and stability whilst the rubber infill provides shock absorption, provides more grip and enables a safe sliding tackle. Research has shown that arriving at the best combination of these components – fibres and infill – is an important factor.

**Design of the turf system**

The performance of a synthetic turf field is determined by the density of the synthetic turf carpet (stitches and distances between the rows). Football players prefer an open carpet over a high density carpet.



A carpet where the fibres are close together prevents the player being able to place his foot under the ball, and tends to have a faster ball roll, and 'open' carpets expose the player too much to the infill. Fibre and infill material should therefore be in balance to get the best playing characteristics.

### Design of the construction

There are two design systems available for construction of a synthetic sports pitch, *engineered* or *dynamic*.

The engineered system incorporates a bitumen macadam layer and an engineered system will in general assist the pitch to match required playing performance over a longer period of time, provide greater shock absorbency and generally enhance the playing characteristics of the pitch.

The dynamic system omits the bitumen macadam layer. Although the dynamic system is the most cost effective option, the disadvantages can be; reduced playing consistency over time and a not as effective shock absorbency.

### Fibres

Our full SoccerTurf range includes both mono-filament and fibrillated surfaces, the advantages and disadvantages of each being as follows:

Advantages	PRODUCT	Disadvantages
	<b>Mono-filament</b>	
Does not split making it more durable and giving 40% better wear		Not as effective at holding the infill in place
More easily maintained		Has a low blade intensity
Replicates natural grass blades		Can provide insufficient stability
Can be more suited to smaller areas of intense use		
	<b>Fibrillated</b>	
More aesthetically pleasing		Has a tendency to lie flat sooner
Holds the infill more effectively		Has a tendency to split in long pile pitch configuration
Offers better shock absorption and stability		

### Pile Heights \*

#### 40mm

40mm carpets are designed to meet the requirements of both the FIH for 'starter pitches' and FA requirements for 'community use', thus providing a 3rd generation football surface which



can also accommodate lower level hockey play. These systems, which require the installation of a shockpad, also meet the I.A.T.S. (International Artificial Turf Standard) performance requirements.

**50mm**

Can be installed with or without a shockpad, and is designed to meet performance requirements of the FA for community use, and the I.A.T.S, when installed with a shockpad.

**60mm**

Designed to meet the requirements of the FA for community use, and the I.A.T.S. For soccer use can be installed with or without a shockpad, however for rugby training the installation of a shockpad is recommended.

**70mm**

Designed to meet the requirements of the IRB, this system requires the installation of a shockpad.

\* Standards referred to are for our mono-filament range.