



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

<u>Advantages</u>	<u>PRODUCT</u>	<u>Disadvantages</u>
	<u>Mono-filament</u>	
<ul style="list-style-type: none"> ▪ Does not split making it more durable and giving 40% better wear 		<ul style="list-style-type: none"> ▪ Not as effective at holding the infill in place
<ul style="list-style-type: none"> ▪ More easily maintained 		<ul style="list-style-type: none"> ▪ Has a low blade intensity
<ul style="list-style-type: none"> ▪ Replicates natural grass blades 		<ul style="list-style-type: none"> ▪ Can provide insufficient stability
<ul style="list-style-type: none"> ▪ Can be more suited to smaller areas of intense use 		
	<u>Fibrillated</u>	
<ul style="list-style-type: none"> ▪ More aesthetically pleasing 		<ul style="list-style-type: none"> ▪ Has a tendency to lie flat sooner
<ul style="list-style-type: none"> ▪ Holds the infill more effectively 		<ul style="list-style-type: none"> ▪ Has a tendency to split in long pile pitch configuration
<ul style="list-style-type: none"> ▪ Offers better shock absorption and stability 		

As an additional alternative to the 2 options above, we are delighted to *exclusively* offer the latest yarn products available for 3rd generation synthetic grass manufacture in the UK. ***Xtreme Duotone*** is installed as a stadium and FIFA 2* pitch at Heracles Almelo who play in the Dutch equivalent of the English Premiership.

The Xtreme yarn used in the manufacture of Xtreme Duotone is designed as the new standard in artificial turf and is 50% softer than any polyethylene tape. This creates a softer and safer touch and feel and makes it far more comfortable to play on. Increased durability is achieved by using new patented polymer that combines a high tear resistance with a superior pile recovery and a soft appearance.

Increased player comfort, with the look and feel of a perfect natural grass pitch, and the sliding capabilities of a slightly wet field it makes it possible for players to make sliding tackles safely.

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 require the installation of a shockpad.

50mm

Designed to meet performance requirements of the FA for community use, can be installed with or without a shockpad

60mm

Designed to meet the requirements of the FA for community use, for soccer use can be installed with or without a shockpad, for rugby training the installation of a shockpad is recommended.

65mm

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