



## Introduction

Over the last few years, football has seen major innovations and investment, particularly through the Football Foundation, in the development of artificial grass surfaces or Football Turf as the surfaces are now designated by FIFA. The development of Football Turf now allows the game to be played on surfaces that replicate the playing qualities of the good quality natural turf whilst increasing the levels of use.

The success of these surfaces is such that they are now being used in major competitions including FIFA World Cup qualification matches and the UEFA Champions League. In England Football Turf pitches have been primarily installed for community use and training or coaching venues. However, they are now being used by some clubs in the Football Pyramid (Evostik League) and other lower leagues across the Country and enquiries are being received regularly for their use.

The FA has produced this guide to help provide the facts concerning the use of these pitches and eradicate some of the myths that currently exist. The guide tries to answer some of the frequently asked questions and is targeted at players, referees, maintenance staff, leagues and clubs.

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#### **FA Position Statement**

The Football Association is fully supportive of the use of the Football Turf (3G) artificial pitches in the National Game. The FA recognises the value and benefit of Football Turf facilities to all involved in the game and the positive impact these facilities have had and will have in the future. This guide has been produced to help all of the grass roots game make informed decisions about their use and address many myths that exist.

#### **Mervyn Leggett**

Chairman of The FA Pitches and Facilities Committee

# 3G Football Turf Facilities in FA Competitions

The FA adopted the FIFA quality concept in 2010 when the FIFA performance standards were established to differentiate between high and lower level performance but also high level usage through the community. (For more detailed information, please visit The FA.com/my-football)

The FIFA 1 Star mirrors what used to be The FA Community Standards on performance, but now adds greater robustness and quality requirements to the tests. This ensures that pitches can be used for most levels of football and meet the needs of The FA competitions. Where sanctioned by the competition rules, 3G Football Turf pitches may be used in FA competitions, as long as the pitch is listed on The FA's Register of 3G Football Turf Pitches.

**Note:** The register is maintained by the FA to ensure 3G Football Turf pitches have the ball/surface and player/surface interactions that are suitable to allow the game of football to be played in the traditional manner.

#### Testing is required annually for these competitions.

The use of 3G facilities is acceptable in the following FA competitions (for the 2012-13 season):

- FA Cup (Qualifying rounds only)
- FA Trophy
- FA Vase
- FA Youth Cup (qualifying rounds only)
- FA Women's Premier League and Cup
- FA Sunday Cup
- FA County Youth Cup

Please refer to competition rules for further details.

The FA is considering changing the Standard Code of Rules so that leagues would not be allowed to refuse the use of 3G Football Turf pitches

The use of 3G pitches is currently NOT acceptable in:

- FA Cup (proper rounds)
- FA Youth Cup (proper rounds)

The FA is considering changing the standard code of rules so that leagues would not be allowed to refuse the use of 3G Football Turf pitches provided they meet the required performance standards. More information on this matter will be provided and clubs and leagues informed in due course

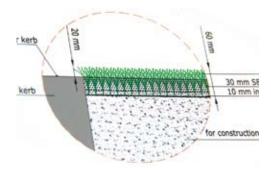
3G Football Turf pitches that are to be used at Step 7 and below of the football pyramid need to pass a test every three years to ensure that these pitches are deemed safe and meet a minimum performance requirement. This test is in accordance with and in the positions defined in the FIFA Quality Concept for Football Turf (2012 edition) or IATS, but has some slightly modified requirements to reflect the increased deterioration in performance that is commonly found on community fields subjected to higher levels of use. The player / surface requirements are the same as specified by FIFA/IATS.

These are the steps a club should follow:

- 1 Find a suitable pitch and ask the league if they would allow use subject to the pitch meeting the performance requirements
- 2 Have the pitch tested by a FIFA accredited test institute(information on suitable test institutes are available from The FA and FIFA)
- 3 Send the test results to The FA
- 4 The FA will give a decision on suitability for use
- 5 If successful the pitch will be added to the register of Football Turf pitches and the club can inform the league.

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# **3G Football Turf Pitch Differences**





#### What is a 3G Football Turf facility?

The basic construction of the newest generation of artificial turf is a blend of grass-like fibres attached to a special backing with a mix of sand and/or rubber brushed in. This construction has proven to be the most favourable for football to date.

3G pitches, as they are often referred to, are one of the major innovations of the last 10 years in the game of football. The development of these 3G Football Turf pitches now replicate the playing characteristics of the best quality natural turf pitches, unlike those of the 1980s and 90s.

The success and specific development of these surfaces for football has led to FIFA to describe them as 3G Football Turf and In July 2004, the International Football Association Board decided to include 3G Fotball Turf in the Laws of the Game and endorse them to be used in major competitions including FIFA World Cup qualification matches and the UEFA Champions League as well as grass roots football and small sided centres.

### Why is it different from the early versions of artificial surfaces?

Whereas early artificial pitches were filled or dressed with sand and had a short pile (similar to those used at Oldham, QPR and Luton), 3G Football Turf pitches come with a longer pile and are in filled with rubber granules giving characteristics that one would associate with playing on a high quality natural pitch such as ball bounce, ball roll, surface hardness and grip. The softer nature of the infill and carpet pile mean greater player comfort and greatly reduced concerns with skin burns and abrasions.

At the moment there is no such thing as 4G or 5G, terms sometimes used by sales-people. Some manufacturers may promote non-infilled products, but these have not received acceptance as a suitable football surface and often struggle to satisfy FIFA requirements.

To find out more, download the 'Selecting the Right Artificial Surface' document available from www.sportengland.org/facilities\_planning.aspx.

# **Information for Players**

Research has concluded that

the game does not change

significantly between natural grass

and artificial surfaces



Research commissioned by FIFA undertaken by Prozone researching over 100 games concluded that the game does not change significantly between natural grass and 3GFootball Turf surfaces. As on natural turf, ball roll and foot/surface reaction is better when the surface is wet, but pitches do not need water to play on to meet the requirements of football.

#### Are there more injuries on 3G Football Turf?

Research commissioned by FIFA, in which more than 10,000 injuries were compared, concluded that there was no significant difference in the types and number of injuries between natural grass and 3G Football Turf surfaces



#### What boots should I wear to play on 3G Football Turf?

The FA recommend users of 3G Football Turf facilities check with their own site for specifics.

**Acceptable:** The use of plastic screw-in and moulded studs are normally considered acceptable.

**Unacceptable:** The use of flat soled training shoes and astro trainers should be discouraged, and ideally prohibited, as they flatten the pile of the carpet and increase the rate of compaction of the infill. A number of manufacturers and site operators have also decided that the use of blades on 3G Football Turf surfaces is not to be recommended.

The table opposite gives an at-a-glance guide to footwear suitable for artificial surfaces.



Reccommended Footwear for Artificial Surfaces					
Footwear types					
	Trainer (astro turf)	Trainer (general)	Football Boot (moulded stud)	Football Boot (screw-in stud)	Football Boot (blade)
3G Football Turf / Long Pile Carpet	<b>*</b>	×	✓	$\checkmark$	×
Sand-filled Carpet	$\checkmark$	•	×	×	×

✓ Recommended ◆ Not ideal

× Not recommended

# **Information for Referees**

Where 3G Football Turf is used, other lines are permitted provided that they are of a different colour



#### Line markings

Law 1 – The Field of Play

Where 3G Football Turf is used, other lines are permitted provided that they are of a different colour and clearly distinguishable from the lines used for football.

#### **Overhead wires**

Where the pitch operator allows, these should be lowered and removed from the field of play; if they are not, and the ball should hit the wire, then Law 5 would then be applied:

#### Law 5 –The referee

Stops, suspends or abandons the match because of outside interference – please note that the response is a dropped ball.

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# **Information for Clubs**

Hire costs vary depending on a variety of factors, especially the time you wish to access the facility



### How do we get our league to accept the use of 3G Football Turf pitches?

Clubs should write to the league management committee asking for the use of 3G Football Turf pitches to be accepted at the league AGM.

## How do we implement RESPECT on a 3G Football Turf pitch?

The RESPECT barriers cannot be stuck into a 3G Football Turf pitch. The FA recommends that cones are used to cordon off an appropriate area.

## Where can parents stand to watch their kids play football?

Each facility is designed in a slightly different way and in turn they vary in size, The FA suggest clubs use discretion and common sense and ensure the players and officials have sufficient run off around the pitches.

Where do we find our nearest 3G Football Turf pitch? Contact your local County FA or visit Sport England's Active Places guide at www.activeplaces.com.

### The cost of hiring a 3G Football Turf pitch is expensive; why is this?

The cost of hire picks up a number of overheads including weekly and annual maintenance, electricity costs and surface replacement. Hire costs will vary depending upon a variety of factors especially the time you wish to access the facility, with many providers having a peak and off peak price. If the cost is prohibitive, The FA suggests speaking with the site operator to negotiate a block booking, as these do tend to offer better value for hirers.

# **Information for** Leagues

#### Do we need to change our rules to allow the use of **3G Football Turf pitches?**

Current FA Rules allow the use of 3G Football Turf pitches (bar specific competition rules) and there is nothing at present in the Standard Code of Rules, although as explained earlier The FA are considering changing the Standard Code of Rules to allow greater use of these pitches. The FA suggest it may be worth making it more explicit within the League Rules so that all clubs are clear that 3G Football Turf pitches are accepted in the competition.

#### How and when do we change our rules?

Potential rule changes are circulated prior to the AGM and then voted for at the AGM. AGM's normally take place in May-July for leagues. The most sensible approach is to consult all clubs well in advance of the AGM, ensuring all questions are resolved rather than these being raised at the AGM. It will also ensure the league has a clear idea on whether the vote will be for or against. The league will also need to consider altering the kick off times to allow greater flexibility and more use of these pitches.

#### What do you do if some of your clubs don't want to use 3G Football Turf facilities?

Its important to understand their concerns and give objective answers to these. Ultimately if the league votes to accept 3G Football Turf pitches then all clubs in the league will have to play on that surface if that is the home venue for a club. If they refuse, they would be fined for none fulfilment of fixture and expulsion could eventually follow if they continue to take the same position.

#### Our league rules stipulate a kick off time, and the pitch is not available at this time, what can we do?

The FA suggest changing your rules to be more flexible around kick off times subject to members agreeing.



#### Are there any checks we can put in place as a league to ensure the facility is safe?

The FA recommendation is to use FA guidance and testing procedure as mentioned earlier – contact your FA Regional Facilities & Investment Manager to discuss further (contact names and numbers can be found at the back of this document).

#### Can we trial the use of these pitches before adopting them fully?

This is perfectly acceptable; leagues just need to be transparent with all the clubs about what it is doing. The pitch will still need to be tested to ensure it meets the performance criteria and be added to The FA register of 3G Football Turf pitches.

#### We have an indoor 3G Football Turf facility in our area, are these acceptable for matches?

These facilities are acceptable for match play use; if unsure The FA recommend you refer queries to your FA Regional Facilities & Investment Manager.

# **Information for Ground Staff and Site Operators**

#### Maintenance

#### Do 3G Football Turf pitches require regular maintenance?

Yes – 3G Football Turf pitches should be brushed regularly and have a maintenance schedule in line with that recommended by the manufacturer. As a guide the industry has a general rule of 1 hours maintenance required to every 10 hours of use.

3G Football Turf surfaces should not have any rubber visible on the surface: if rubber lies on the surface it is a sign that the pitch needs maintaining.

There are a number of external companies who provide additional maintenance for de-compaction and deep cleaning. The FA encourage sites to take the maintenance of their facility extremely seriously.

#### Are there training course for 3G Football Turf pitch maintenance?

Yes – please contact your County FA or FA Regional Facilities & Investment Manager who can advise what courses are available.

#### We have been asked to put additional line markings on our pitch for mini soccer is this acceptable?

Yes – it is acceptable so long as it is in a different colour. there are a number of products on the market that can be applied to 3G Football Turf pitches that vary in terms of how long you want the additional markings to last. Contact your FA Regional Facilities & Investment Manager for more information.

#### Testing

3G Football Turf pitches do degrade with age and heavy use, it is recommended that pitch operators implement an annual maintenance schedule and have their facilitu tested in line with the level of competition played on it.



Failure to regularly maintain and periodically test may invalidate a field operator's public liability insurance, as they may not be able to demonstrate that the pitch is still fit for purpose.

The pitch should be tested either annually for steps 1 to 6 (usually required between January and March each year) or every three years for step 7 and below, and the pitch should meet the required performance criteria and be registered on The FA register for 3G Football Turf pitches.

For further information on maintenance and testing please refer to TheFA.com/my-football.

#### Warrantu

Manufacturers and sales people will often refer to a warranty. It is important to clarify if this is a product or performance warranty as the product is often hard wearing and will last some considerable time meeting the product warranty. However, the product may not meet the performance requirements for match purposes that the pitch is being developed to meet should the usage exceed the manufacturers guidelines.

## **Case Studies**



The League supports the use of 3G

Football Turf pitches for competitive

fixtures and recognises that the

investment into these facilities in

Hertfordshire will benefit players,

clubs and leagues

Mark Axten

Chairman, West Herts Youth League



#### Club

#### **Bideford Blues FC**

FA Charter Standard Community Club, Devon FA Total project cost £192,210 (2010)

The club were one of the first grass roots club in the country to develop a 3G Football Turf surface at a club site. Since its first facility in the late 90's the club built up a sinking fund and sourced external funding to redevelop their existing facility and harness FA guidance and new technology. The new 60x40m 3G Football Turf floodlit facility is based at the clubs home ground which has a club house and 2 grass pitches. The pitch is used to serve the community and local schools during the day and is accessed by the clubs 17 teams for training as well as other local teams and individuals.

The new facility has seen the club go from strength to strength and is solely reliant upon the volunteers within the club who are ensuring the club is on a sound financial footing in the years to come when the surface will need replacing.



#### Club

#### **Sutton Coldfield Town FC**

Step 4 National League System, Birmingham County FA Total Project Cost: £382,000 (2011)

The club approached the FA in late 2010 with a view to replacing the natural turf stadia pitch with 3G Football Turf, recognising the natural turf was struggling to cope with the demands the club had with a ground share and other teams from within the club. The club engaged the league and the FA at an early stage to ensure that the facility was to be compliant to enable them to continue playing in the National League System and implications for cup competitions.

The project funded by external monies and private finance recognised that access to floodlit space and senior grass pitches was limited and demand for such a facility was high in the city. With this in mind and recognition that day time use was key for the sustainability of the facility the club brokered a relationship with a local FE college. Today the facility is going from strength to strength and approaching its first full year of operation as a financially sustainable entity. They key to its success has been the acknowledgement that the workforce and maintenance to support such a facility is essential.



#### **Local Authority**

#### **Stanley Park**

Chippenham Town Council, Wiltshire County FA Total Project Cost: £967,873 (2011)

The Stanley Park site was initially developed with 18 grass pitches in 2003. Football demand at the facility has grown significantly and the site was being used by 20 teams for training and playing. To accommodate the need a second phase was delivered in 2011 comprising of a full-sized floodlit 3G Football Turf pitch and additional changing facilities.

The site now caters for 89 teams playing and training each week. Stanley Park has hosted matches involving disabled football teams and from next season the pitch will also be used by clubs playing in the local Leagues. Over 10,350 matches and training sessions have taken place since the official opening.

Key to this success has been the Football Development Officer based on the site working with key local clubs and partners with support of the Wiltshire County FA.

## **Case Studies**



#### College

#### **Telford College of Art and Technology**

Indoor 60x40m 3G Football Turf facility (2005) £765,000 Full size 3G Football Turf/Rugby facility (2012) £684,000

In 2005, Telford College of Arts and Technology broke with tradition and covered one of the first community indoor 3G Football Turf facilities. Since its construction, the college was chosen to become one of the first FA Focus Colleges to help support the delivery of The National Game Strategy. The benefits of such a facility have resulted in a significant number of new college teams being developed and helped support the college and community in its football development programme as well as other sports and education programmes.

As the football development programme grew and the number of students involved in the college programmes increased, the college sought to expand their facilities. This resulted in the development of a unique facility to service both rugby and football in 2012, allowing multiple fixtures on the college's campus.

The key to the success of this site has been the ability to align the workforce to the facility seven days a week and the commitment of the college to continue to develop.



#### Referee

#### **Nigel Hickes, Middlesex County FA**

Level Five refereeing in Middlesex County Football League, Combined Counties Football League and Ryman Youth Football League

### Any differences when compared to officiating on grass?

The bounce of the ball is usually more true on synthetic pitches, so it tends to highlight poor technique including tackling. As a result I can safely judge a poor tackle as such without having to take any deficiencies in the playing surface into account.

#### **Quality of the experience**

Generally good. 3G Football Turf pitches are usually part of new or modernised facilities, so changing accommodation and showers are usually of a reasonable quality. The surface itself always gives the same response, no matter what the weather conditions. The surface is never rock-hard in very dry weather, never frozen in cold weather, and never has puddles in wet weather. The run of the ball is always true because the surface has no divots or potholes, nor do bare patches develop as a result of the wear and tear of the season. The facilities usually have floodlights, so the games are not subject to the timing of daylight hours.

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