



3G Football Pitch Construction

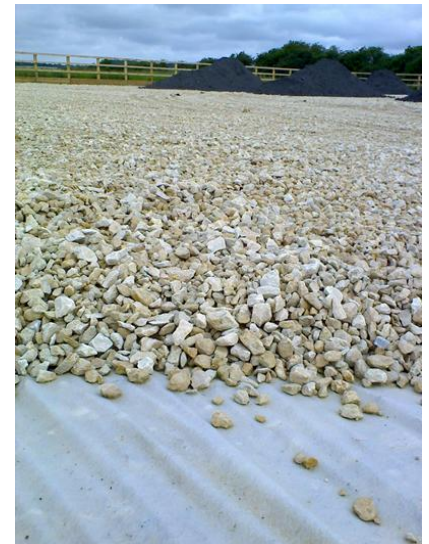
A synthetic grass football pitch is constructed using a free draining, frost-free sub-base, sometimes one or two tarmac layers and/or a shockpad and, lastly, the artificial grass carpet, often known as a 3G surface.



A basic pitch can comprise just the sub-base and the carpet, and will perform perfectly well to FIFA standards. However, the use of tarmac and / or a shockpad will significantly extend the life of the pitch as well as providing additional stability and cushioning.

Drainage: The purpose of pitch drainage is to remove surface water from the football pitch to prevent flooding and make sure that no excess water builds-up within the sub-base which can potentially damage the structure. Lateral drainage is common under the pitch, connecting into drains outside the perimeter which, in turn, discharge into storm water sewers, soak-aways or watercourses.

Sub-base: This is formed from unbound, graded, loose-laid aggregate to give an inert, stable, frost-free and free-draining base on which to build the pitch. The importance of the sub-base cannot be over-estimated. Materials and workmanship should be of the highest quality in order to ensure maximum structural integrity.





Tarmac (engineered) base: Adding one or two bound (engineered) layers of open textured (porous) tarmac minimises the risk of localised movement of the sub-base. The rigidity of the tarmac usually necessitates the use of a shockpad in order for the artificial grass carpet to achieve the required levels of dynamic performance.



We lay the top layer of sub-base aggregate through a laser machine so that a single layer of macadam will meet the required tolerances for surface regularity. However, on sites with poor ground conditions, two layers will provide greater stability.

Shockpad: A shockpad is used for stability and cushioning which enables the use of shorter pile carpets and less infill which in turn reduces maintenance. Insitu pads are rubber mixes laid by machine. Other options are rubber or polyethylene panels or rolls. A high quality shockpad can extend the life of a pitch and, in some instances, be left in place and perform just as well under a similar, replacement carpet.

Artificial grass Carpet: Artificial grass or 3G synthetic turf carpets for football typically have a polyethylene, monofilament yarn, sometimes with a secondary backing, a pile height of 40mm to 60mm and a pile weight of between 900g /m² and 1600g / m². Generally speaking, the higher the pile weight the better quality the carpet. The choice of carpet is very important and specialist knowledge is required to ensure that the yarn used is the best option for the type and level of sport to be played.



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