

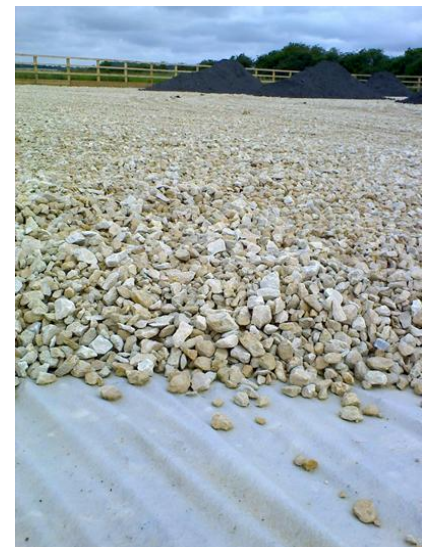


## Hockey Pitch Construction

A synthetic grass hockey pitch is constructed using a free draining, frost-free sub-base, one or two tarmac layers, a 15mm shockpad and an artificial grass carpet, either sand-filled, sand-dressed or water-based. Water-based pitches have additional, specialist drainage and a sprinkler system. Water based turf is denser and shorter than a filled hockey turf.



**Drainage:** The purpose of pitch drainage is to remove surface water from the hockey 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. Water-based pitches use sprinkler systems (water canon) to keep the pitch irrigated and require particular attention to ensure adequate drainage



**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 of the pitch.



**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. It enables the use of shorter pile carpets and less infill which in turn reduces maintenance. In situ pads are rubber mixes laid by machine, usually 15mm for hockey and 25mm for rugby. 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 carpets for hockey typically have a polyethylene, monofilament yarn, sometimes with a secondary backing, a pile height of 12mm to 23mm and a pile weight of between 1000g /m<sup>2</sup> and 1700g / m<sup>2</sup>. 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 hockey to be played.

[Watch our construction process](#)

