

These comprehensive guidelines have been formulated to enable clients and operators to get the best from their synthetic facilities.

The sections below outline the key areas of attention, and clients should use this in conjunction with the numerous information sheets we have available. Due to the varying specification of surfaces and infills, not every procedure will be relevant to every facility.

Infill Levels

It is extremely important that infill levels are regularly monitored to ensure correct and even infill levels are maintained. The infill not only ensures that the pitch performs in the manner it was designed to, but in most cases also acts as the wearing course; thus, maintaining the correct infill levels will extend the life of the facility.

You should be aware that too much infill can occur on a pitch, and will occur as the carpet pile wears down through general play (approx. 1mm per year). Normally, natural migration of the infill will help to balance out this process, but from time to time it may be necessary to remove the excess infill and restore the correct levels.

Conversely, over a period of time infill can either compact inside the carpet pile, or be removed – this being via play or weathering - at a rate greater than the wear of the carpet fibre. Given this scenario infill levels must be increased to prevent health and safety issues and the premature wearing of the fibres. It is important that any increase of the granular infill be made with appropriate specified materials. Failing to do this will seriously impact on the viability and longevity of the facility.

Technical Surfaces operates specialist machinery for both removing infill and redressing pitches, including purpose-built brushing equipment, which helps erect the pile prior to re-dressing.

Drag Brushing / Matting

Drag Brushing of a synthetic surface remains the primary and fundamental maintenance operation. It is likely that large pieces of surface debris can be removed with competent operation. It is also very valuable in terms of correcting any imbalance of the carpet infill. Testing has also shown there to be great benefit in the use of specialist Drag Mats. Specifically designed to help remove both surface debris and contamination, such Mats have become a useful addition to the maintenance remit. Ideally, Mats of this type will be used together with, and at the same time as, the Drag Brush.

Continued player footfall and natural weathering to the top of the pitch will allow for a migration of any granular infill away from the pitch's most used areas; if left displaced the absence of the correct levels of infill will allow for the carpet fibres to be both un-protected and un-supported. This may result in accelerated wearing, repairs to the areas concerned and a foreshortening of the Life Expectancy of the pitch. Unsupported fibre will also lead to decreased traction values and allowing for players' slippage.

Seams / Inlaid Lines

Periodically, it would be recommended that the pitch is walked and all the seams/inlaid lines are checked for soundness. This will ensure that any failures are highlighted at an early stage and repairs can be completed before they worsen and represent a health and safety risk to the users of the facility.

Litter / Leaf Collection

Leaves and litter should be picked from the pitch on a regular basis – ideally daily. If left to stand on the surface, leaves will decay and cause staining, as well as decomposing into the sand infill, ultimately causing interference with the free-draining characteristics of the facility. Clients may find that a small pedestrian machine is appropriate for this purpose.

Vegetation Growth

Changes in today's climate have seen an increase in the formation of moss, weed and algae growth. Clients should be especially vigilant in areas of facilities which receive little sunlight due to overhanging trees kickboards or general geography. Appropriate Vegetation Treatments should be carried out to the affected area whenever necessary (if a Chemical Treatment is required, please refer to manufacturers recommendations). Once killed (darkened) the area should be Brushed or spaded to remove the dead moss/algae.

Signage

Appropriate signs should be erected displaying information to the user on simple rules which need to be observed to ensure everyone can enjoy the pitch in a safe environment.

The following are some of the points which we would recommend be included:

DO NOT	YOU MUST
<ul style="list-style-type: none"> Wear spiked or *studded footwear (not applicable for Long Pile Surfaces) 	<ul style="list-style-type: none"> Use appropriate flat or dimpled rubber footwear.
<ul style="list-style-type: none"> Smoke cigarettes, cigars, etc 	<ul style="list-style-type: none"> Clean footwear thoroughly before entering the area.
<ul style="list-style-type: none"> Use glass drinking vessels or bottles 	<ul style="list-style-type: none"> Dispose of chewing gum, cans, bottles, etc. properly
<ul style="list-style-type: none"> Allow any solvents or liquids to be spilled 	<ul style="list-style-type: none"> Ensure goals and posts are secure before playing.

Linemarking

Where painted play lines are used regular checks should be made to ensure their adequate visibility to all players. Clients using water-based paints and re-marking every week should consider Technical Surfaces to mark using special two part sports compounds. Such paint is specially formulated for the sports environment and under normal conditions Clients can expect to achieve up to 12 months' wear. Due to the nature of this paint, you should allow a minimum of 24 hours for the paint to adequately cure. Consideration should be made for this if you are allocating usage including outside lets to the pitch.

Power Sweeping

Despite Drag Brushing and regularly picking of larger debris, the surface will benefit from 'Power Sweeping' by Technical Surfaces. This process lifts the top few millimetres of infill, cleans and filters this through a series of sieves and vacuum, before re-grading the clean infill back to the surface. The frequency of Power Sweeping will depend on what other maintenance works are being carried out, together with the age and condition of the carpet. Technical Surfaces would be pleased to advise on the frequency of Power Sweeping visits and demonstrate the effectiveness of this essential operation.

Revite®

It is further recommended that an annual 'Revite®' of any granular infill surface is made. This process gets deeper into the carpet pile. The robust nature of this operation will decompact the infill as well as lifting the pile removing dust, debris and broken-down carpet fibres. Such material will all migrate to the base of the carpet over a period of time and act to compromise the draining co-efficient of the carpet. This operation complements regular Power Sweeping visits and is most effective during the summer months when the pitch surface is dry. This specialist process can take anything from one day to two weeks, depending on the level of contamination present in the pitch and the age of the facility.

Winter Revival™

Continued maintenance to surfaces on a year round basis has highlighted common issues with synthetic surfaces. Ongoing climate change, allied with both the specific geographical issues endured by some sites and an absence of appropriate maintenance, can lead to a build up of a silt on the carpet surface. In most cases these factors are responsible for contributing to the issues operators experience.

In some cases, it has been noted that even recent remedial works such as a Revite® to the surface can loosen and decompact the infill. This allows for the release of finer particles and contamination from the lower reaches, especially after heavy rainfall. Such material is likely to be an ongoing health and safety issue for the users of the surface. A Winter Revival™ will allow for the removal of this material, but will not necessarily address the core issues of the problem. The presence of this material should be regarded as a symptom of the problems the surface is experiencing, and give the manager of the surface reason to consider a full summer Revite® or Rejuvenation®

Hydrotech®

Changes in climate have greatly affected many water-based synthetic surfaces. More benign weather conditions have allowed for the establishment of various mosses and algae, and for their continued proliferation. High levels of vegetation both in the carpet pile and on the pitch will impact very quickly on the efficiency and general playing characteristics. The drainage characteristics of the pitch can become compromised, and other key qualities like friction and ball roll can be lost. To remove and help prevent them becoming established in the future, our recommendation is that water-based surfaces have the Hydrotech® process on an annual basis.

This specialist operation is invasive to the base of the carpet and allows for the detachment and removal of resident contamination. In order for this to be of maximum benefit to the facility, such annual activity must be supported with quarterly all-over Chemical Treatments. These visits should be allied with Power Sweeping works to allow for the removal of debris and contamination from the playing surface. Any Line Marking that may be required to the surface should be considered for the time directly after the conclusion of the Hydrotech® works. Due to the weather limitations of the Line Marking this will mean scheduling the Hydrotech® works for the period between May and September.

Rejeneration®

Depending on the level of maintenance previously carried out, the constant accrual of contaminants in the infill will ultimately compromise the surface and affect drainage. The point at which the porosity slows to an extent that pitch usage is affected by standing water will probably indicate that effective remedial works with conventional Brushing techniques will no longer be beneficial. At this stage 'Rejeneration®' will be the only solution.

This patented process removes the contaminated sand infill (usually the top 12-14mm) by the use of compressed air. This ensures a very clean extraction, eliminating the possibility of further cross contamination that can occur through the use of Power Washers, which are likely to exacerbate the situation by washing contaminants deeper within the carpet infill. Fresh specialist aggregate is then imported to replace that removed, leaving an almost 'as new' surface

As long as adequate pile heights exist, and the general integrity of the surface is good, clients can enjoy many more useful years' life from a pitch which would otherwise have had to be resurfaced.

Safety Inspection Report

Recent rises in litigation surrounding play surfaces and the accountability of the operators of pitches has meant that appropriate documentation in respect of the status of the facilities is now required. Technical Surfaces has taken the step of training its technical managers in respect of the various health and safety issues surrounding the surface. Our Safety Inspection Report form outlines the condition of the surface and its ancillary items such as fencing, lighting and equipment, and makes note and recommendation of all the hazards identified. The continued submission of this annual form builds into a record of the condition of the facility, demonstrating commitment and care.

Clients and operators must be aware that failure to implement a recognised structured maintenance programme will undoubtedly shorten the expected life of any given facility.

ITEM	FREQUENCY	
	Minimum	Recommended
PITCH INSPECTION TO INCLUDE SEAMS / GENERAL CONDITION	Weekly	Daily
LITTER PICKING	As Required	Daily
LEAF/FLORA COLLECTION	As Required	Daily * ¹
DRAG BRUSH/MAT	Weekly	2 or 3 times per week
TOP UP TO HIGH WEAR AREAS	As Required	As Required
VEGETATION WEED/MOSS TREATMENTS	As Required	As Required
SPECIALIST POWER SWEEPING	Quarterly	Monthly
REVITE[®]	Bi-Annually	Annually
HYDRO-TECH[®]	Bi-Annually	Annually
SAFETY INSPECTION REPORT	Annually	Annually
LINE MARKING	As Required	As Required * ²

*¹ dependent on season

*² dependent on type of paint/compound used