



TigerTurf: Tennis Welcome Pack

This pack has been put together to assist you with the care and maintenance of your TigerTurf surface. We want you to get the most out of your investment and hope it offers enjoyment for years to come. By looking after your surface correctly you will achieve optimum performance for a longer period of time and also minimise any potential deterioration or repair works. Please read the enclosed information carefully and do not hesitate to contact us if you have any questions.

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Maintenance Instructions

A step-by-step guide to caring for your TigerTurf surface, which includes; basic do's and don'ts, a full explanation as to the possible consequences of neglecting maintenance, a breakdown of in-house and outsourced maintenance duties and protection recommendations. There is also a guide to surface grooming, infill levels, decompaction, cleaning and stain removal and how to control moss and weeds. The limitation section looks at how to address potential scenarios and what precautions to take in certain circumstances such as adverse weather. Finally the instructions cover minimising risk when hosting special events, how to address minor repairs and a brief introduction to the maintenance schedules.

Maintenance Frequencies

A simple breakdown of recommendations on frequencies for all maintenance procedures.

Maintenance Log

A template designed to help you keep track of your maintenance activity on a weekly basis.

Equipment Advice

An essential but concise list of maintenance equipment you will require onsite at all times.

Playing Hours Guidelines

This document explains why it is important to record playing hours and how they are calculated. By understanding the relevance of recording playing hours will give an indication as to how often maintenance will be required.

Playing Hours Log

As part of your welcome pack you will receive a playing hours log document. Please ensure all activity is recorded, as in the unlikely event of experiencing any issues with your surface, these logs will need to be provided to TigerTurf in accordance with the terms of the product guarantee.

Correct Footwear

Only flat soled trainers and specialist tennis shoes are deemed permissible footwear.

TigerTurf Guarantee

Your product guarantee which is specifically tailored to your installation specifications.

Please take time to read this pack carefully. If you have any questions or would like additional information about TigerTurf please do not hesitate to contact us on 01299 253966 or info@tigerturf.com



TigerTurf: Advantage Pro
Maintenance Instructions
Lorton Tennis Club/Leisure Surfaces (Cheshire) Ltd



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1 - Introduction

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This manual sets out the basic housekeeping requirements for TigerTurf systems.

The use of the following information is intended to assist in the enjoyment of the facility whilst helping to maximise its life and performance.

The few basic rules being:-

- Keep the surface clean.
- Keep heavy machinery and loads off it (especially when wet).
- Any minor repairs or defects should be notified to TigerTurf prior to any remedial works being completed
- If any damage occurs, or if technical advice is needed, please do not hesitate to contact TigerTurf (UK) Ltd.
- Your TigerTurf system represents a substantial investment. Please take the time to read the enclosed instructions and ensure that whoever is given the task to look after your facility is familiar with them.

It is the responsibility of the owners of this TigerTurf surface to read and adhere to the maintenance instructions that follow. Failure to do so may affect the product guarantee.

PLEASE NOTE: It is normal for the surface to be slippery underfoot during the first few weeks after installation. This is due to lubricants which are used to aid the fibre manufacturing process

Although a lack of maintenance of the surface may take some time to have a negative effect on the surface, the remedial works required to recover a badly maintained surface are expensive. As such, thorough and regular maintenance needs to be completed on an ongoing basis.

The issues associated with a lack of maintenance on TigerTurf surfaces are well documented. The infill on such systems adds weight to the carpet to prevent movement of the surface over time and to support the carpet pile ensuring excessive wear of the yarn does not take place.

A lack of maintenance can cause the following issues to arise:

- A lack of regular 'in-house' brushing of the surface allows the infill to disperse, thus leaving areas of the surface under filled. This reduces the support offered to the carpet by the infill and causes the pile to flatten. Ultimately, this will lead to an increase in the rate at which the carpet wears and thus affects the performance and life expectancy of the surface.
- A lack of specialist 'outsourced' maintenance allows contamination such as broken down carpet fibre, silica dust, general dirt and debris and vegetation to break down and become lodged within the carpet pile. If not removed, this contamination then reduces the rate at which water passes through the system.



- If left for too long a period, this contamination becomes compacted within the infill until a stage where drainage is disallowed completely. Standing water then develops on the

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area when dry.

- Lack of maintenance also allows moss and weed growth to develop which can also present a slip hazard to users.

In short – maintenance is essential to ensure that the surface remains in the best possible condition in terms of usability and to ensure that the full life expectancy is realised.

Maintenance Duties (In House/Outsourced)

Effective maintenance of the surface will need to involve a combination of both in house and specialist, out sourced maintenance. In house maintenance should be something which is completed regularly on a 'little and often' basis and can be completed by fully trained onsite staff using the attached recommended equipment (**Appendix C**). Specialist outsourced maintenance will be required at a set number of times each year to ensure that contamination is effectively removed and other issues are addressed. A break down of these duties and their ideal frequencies has been outlined in **Appendix A**.

In-house maintenance to include:

- Drag brushing/grooming
- Simple inspection of surface to check for damage
- Litter picking and leaf collection
- Localised moss, weed and algae treatments

Specialist outsourced maintenance to include:

- Mechanical cleaning and de-compaction of surface infill
- Intensive treatment for moss, weeds and algae
- Intensive infill top up
- Drainage channel inspection (where applicable)

Infill top ups and all over chemical treatments may be required on occasions on sites where environmental conditions are particularly bad. All manhole/catchment pits and drainage pipes should be checked and cleared bi-annually as a minimum.



2 - Protection

To protect and prolong the life of your facility, please take note of the following recommendations:-

- Install a fence around the surface.
- Keep areas around the surface free of litter, mud and debris.
- Particularly when the surface is wet, take note of recommended load limits.
- Repair minor damages quickly.
- Follow TigerTurf (UK) Ltd suggested maintenance and cleaning procedures.

There are some perceptions that synthetic sports surfaces are maintenance-free, as opposed to natural turf surfaces which require intensive maintenance. The reality is that synthetic surfaces do require regular, ongoing maintenance if the playing and draining criteria of the surface are to be met. This guide outlines the essential maintenance works that are required to ensure that the facility remains in good condition.

A crucial tip for maintaining the surface is to **do a little often**, rather than neglecting maintenance procedures for months and then facing large expense to restore the surface to its optimum performance capabilities. **Neglecting to maintain the surface will affect the guarantee.**

A TigerTurf surface needs to be maintained on a regular basis in order for it to provide the best possible playing characteristics over its lifespan. The surface will respond favourably provided it receives adequate maintenance. The following pages have been designed to help you ensure that the full life expectancy of the surface is realised.



3 – Cleaning and General Maintenance

SURFACE GROOMING (Brushing/Sweeping)

Grooming of a synthetic surface remains the primary and fundamental maintenance operation. During active play, the infill will become dispersed from the high wear areas. In addition, active play can cause the fibre of the surface to compact and lie flat. As such, regular grooming of the surface helps to ensure that the fibres are pulled upright and ensures that dispersed infill material is redistributed evenly across the surface, thus protecting the fibre against accelerated wear.

Please refer to Appendix C for recommended grooming equipment.

INFILL LEVELS

It is extremely important that infill levels are regularly monitored to ensure correct and even infill levels are maintained. The infill helps to support the carpet fibre thus ensuring that the surface performs in the manner it was designed to. In addition, the infill also acts as a wearing course by protecting the carpet fibres from the effects of accelerated wear. As such, maintaining the correct infill levels will help to ensure that the full life expectancy of the surface is realised. It is normal for infill levels to consolidate within the first few months depending upon usage.

Although surface grooming helps to redistribute the surface infill, it is inevitable that an amount of infill material will migrate from the surface over time. As such, infill top ups may be required at certain stages of a surface's life. We would recommend that you contact one of our recommended maintenance service providers for further advice regarding this during one of their regular maintenance visits. Localised infill top ups can be completed by trained onsite staff, using a suitable aggregate.

SPECIALIST DE-COMPACTION

Although regular in house grooming of the surface helps to redistribute the infill material, it will not remove finer contamination such as silica dust and smaller dust particles. As such, specialist de-compaction and cleaning maintenance will be required on an ongoing basis in order to ensure that the playing and draining characteristics of the surface are maintained. Please contact an approved maintenance specialist for further advice regarding such de-compaction and cleaning works.

CLEANING

The most obvious requirement is the cleaning up after players and spectators. Ensure there are plenty of rubbish bins available. Try to minimise unnecessary use of the surface by directing spectators/maintenance crews around the surface instead of across it. If litter or loose dirt is left on the surface, pick it up promptly before it penetrates into the pile.

If trees overhang the surface, it is advisable to have a programme of tree pruning. This will limit the amount of leaves and sap deposited on the surface. In addition, seasonal leaf collection should also be undertaken when necessary.

Ensure that surrounding paths and gateways are clean. This will prevent dirt from being walked onto the surface.



MOSS/WEED CONTROL

Moss/weed chemical treatments should ideally take place four times a year to ensure that the surface does not accumulate vegetation growth. Both the moss and weed killer agents must be water-based systematic products. Please also ensure that when the moss/weeds have died off, dead matter, including roots, are removed or in the case of moss swept out of the turf structure. This operation may have to be outsourced.

STAIN REMOVAL

General Instructions

The first rule here is to act promptly because fresh spills are always easier to remove than dried or hardened ones. Remove any solids with a plastic spatula. Blot up excess liquids with plenty of paper towels or a dry absorbent such as 'cat litter'. Dry absorbents can then be swept up or vacuumed up.

Procedure

Polyethylene and polypropylene surfaces have good resistance to staining; however, remember the surface is only one part of a sophisticated system of many components designed for overall surface performance. Some cleaning fluids safe to use on polyethylene and polypropylene could be harmful to other parts of the system. This means cleaning fluids should be grouped into two sets – those which can be used liberally on the surface and those which should only be applied by rubbing with a cloth soaked in the cleaning fluid to minimise possible adverse effects on the under-pad.

The following cleaning fluids can be applied without any special precautions,

1. A warm mild solution of granular household detergent in water OR a neutral low foaming detergent recommended for delicate fabrics.

Use with approximately 5 litres of water.

Stains to be removed with detergent solution:

Coffee	Tea	Fruit Juice	Tomato Juice
Chocolate	Water Colour	Milk	Ice Cream
Ketchup	Food Colouring	Blood	Cola

2. A 3% solution of ammonia should be used for more severe problems. Thoroughly flush the surface with lots of cold water afterwards.

3. Clean, dry absorbents such as paper towels or commercial 'kitty litter' may be used for stains which can be blotted up.

The second group includes chemicals such as pH neutral dry cleaning fluids. These cleaners must be applied sparingly using a damp cloth/rag, with care taken to avoid penetration beneath the turf. These stains include:

Ball Point Ink	Shoe Polish	Cooking Oil	Suntan Oil
Crayon	Scuff Marks	Motor Oil/Grease	Chewing Gum*



*Chewing Gum is a common hazard and can be removed by using dry cleaning fluid or by freezing. Aerosol packs or refrigerant can be sourced from carpet cleaning suppliers for this purpose, or dry ice could be used. When using such products care should be taken to ensure that the user instructions are strictly complied with.

To neutralise animal waste, use a mixture of white distilled vinegar with equal amounts of water. Flush thoroughly with water after the application.

Do not use Clorox, bleaches or caustic detergents on your surface as this will cause discolouration.

The handling and use of cleaning chemicals in general should be undertaken in strict adherence to the manufacturer's instructions.

If in doubt, clarification must be sought from TigerTurf (UK) Ltd.



4 - Limitation

You may find your list of uses for your new surface will expand, which could result in additional equipment being used on it. Providing you take proper steps and precautions, most requirements can be met.

Protecting the under-pad of the surface is especially important. As a general rule, TigerTurf (UK) Ltd recommends that no long term still load of more than 250kg or any rolling load of more than 25psi should be applied to your surface.

TURF LOADING

Any equipment used which weighs over 140kg should be equipped with pneumatic tyres with a maximum tyre pressure of 25psi.

In addition, when grooming the surface, pay attention to the turning circle of the equipment used. This should be as wide as possible as to avoid over-exertion of the carpet in specific areas.

DO NOT PARK VEHICLES OR LEAVE EQUIPMENT STANDING ON A TIGERTURF SURFACE.

It is a good idea to eliminate any unnecessary long term static loads and keep the necessary static ones as low and brief as possible. You can use sheets of 20mm exterior plywood to spread major still loads to further minimise risk of damage to the turf system (see Section 5).

NOTE: Under static loads the surface should be protected by a polythene sheet to keep it clean.

Even some new plywood contains materials that may leach out and stain the surface if it gets wet, so a barrier, as suggested above, can prevent this happening.



PROHIBITIONS

The following should not be allowed on the surface, and a special sign near the gate should continually draw the attention of the users to these regulations:

- (i) Correct footwear
- (ii) No glass, tin or ceramics
- (iii) No smoking or fireworks
- (iv) No dirty or muddy footwear
- (v) No chewing gum
- (vi) No Vehicles, except maintenance or emergency vehicles
- (vii) No Animals

If mud or rubbish is walked on to the surface this will quickly affect the turf performance. The cost of cleaning the turf is expensive, therefore, observation and policing of these restrictions is advised. A client that does not put these restrictions into practice, or fails to police them, must accept liability for any future failings of the turf surface.

ADVERSE WEATHER

Snow and ice are not harmful and can be permitted to melt naturally.

The turf structure will freeze in conditions of lower than -5 c° . It is not advised to use the surface in these conditions. However, should use of the surface be unavoidable during such conditions, a vacuum dried salt can be applied. **UNDER NO CIRCUMSTANCES SHOULD ROCK SALT BE USED.** The application rate should be approx. 0.15kg per sqm.

The surface can be played on if covered in a light dusting of snow (1/2cm depth) without having to remove the snow (providing line markings are clearly visible). It is recommended that users take additional care during periods of adverse weather.

Heavy fall of snow can be removed using wooden snow shovels, but sharp-edged metal or plastics shovels avoided at all costs.

Use of the surface in adverse weather is a matter of common sense; if in doubt please consult TigerTurf technical staff.



5 – Special Events

Most of the questions asked regarding surface usage are concerned with assemblies, shoes and concerts or musical events. Concerns with surface loading and crowd management may arise here.

The first precaution is to keep the long term static load below 1,450kg per square metre by using plywood or other load spreaders. Usually 1200 x 2400 mm sheets of 20mm plywood will be satisfactory, as long as the load is not situated closer than 150mm from the edge of the plywood. To avoid staining the surface a polythene sheet should be placed under the plywood.

DO NOT PLACE CHAIRS DIRECTLY ONTO A SURFACE OR ANY OTHER OBJECTS WITH HIGH POINT LOADINGS.

Rock Shows/Concerts. Problems with surface loading to support stages and sound equipment can again usually be overcome by using proper load spreaders. A much more serious problem here is crowd control and concert crowd behaviour.

In the event of the court being covered by temporary flooring it is essential that the surface is groomed immediately upon the removal of the flooring to restore fibre to an upright position. It should also be noted that covering an area with temporary flooring may invalidate the guarantee, and TigerTurf should be consulted before temporary flooring is laid.

If you find it necessary to hold any of the above events, contact TigerTurf (UK) Ltd, for suggestions of ways to minimise the risk of damage.

IN CASE OF ALL ALTERNATIVE USES FOR YOUR SPORTING SURFACE, THE OWNER SHOULD BE AWARE THAT ANY RESULTING DAMAGE IS NOT COVERED UNDER GUARANTEE.



6 - Minor Repairs

Your new surface has been carefully engineered to provide you good service for many years. However, in the unlikely event that small problems occur, please take note of the following:-

WHEN TO REPAIR

Awareness of the optimum characteristics is the first step of any maintenance programme, together with a day-by-day knowledge of the current usage and condition of the facility. Maintenance of synthetic surfaces is no exception. Minor damage can soon develop into large scale failure if not repaired quickly, particularly under heavy use. As such, a daily inspection of the surface and early repair of any highlighted failures by TigerTurf listed contractors is essential.

As well as routine care, every surface should be given a monthly/bi-monthly thorough inspection. Inspect ALL seams and note any loose areas. Go over the surface of each roll of turf and note any rips or tears.

Repairs and general maintenance are more easily undertaken in warm, dry weather as adhesives hold better and cure faster. Adhesives should not be used when the system is wet except under expert guidance.

SEAM REPAIRS

Contact your contracting/installation partner for all repairs, minor or otherwise, if you are not an expert in this area.



7- Maintenance Schedules

The schedule (**Appendix A**) overleaf indicates a suggested maintenance routine and a time management programme to ensure its success.

The information and recommendations in this document should be regarded as the minimum amount of activities based on surface usage up to 50 playing hours a week (**see Appendix D1**). Higher surface usage means the frequency of activities needs to increase to reflect the additional hours e.g. surfaces with usage of 100 playing hours a week will require double the basic maintenance activities.

An essential requirement is to create a maintenance log which records the activities carried out on a week-by-week and monthly basis. In addition, a section on the hours of usage per week should also be kept as part of the log (Appendix D2). This information will assist in the management of surface maintenance, and will be an essential document to submit to TigerTurf (UK) Ltd in the unlikely event of a claim under the guarantee, (see Appendix B).



Appendix A - Maintenance Frequencies*

Activity	Frequency	
	Minimum	Recommended
DRAG BRUSHING/GROOMING	Weekly	Twice Weekly
LEAF/FLORA COLLECTION	As Required	Weekly (In Season)
COURT INSPECTION TO INCLUDE SEAMS/GENERAL CONDITION	Monthly	Fortnightly
CHEMICAL WEED/MOSS TREATMENTS	As Required	Quarterly
OUTSOURCED SPECIALIST MAINTENANCE	Half Yearly	Quarterly
FACILITY INSPECTION REPORT	Annually	Half Yearly
LINE MARKING (FOR PAINTED LINES)	As Required	As Required
CHECK DRAINS AND CESSPITS/WALK ON MATS/FENCING	Annually	Half Yearly

*Frequencies may vary according to usage. Please ask for guidance from TigerTurf or your specialist maintenance provider, whichever is appropriate.



Appendix B - Maintenance Log

Week Number	1	2	3	4	5	6	7	8	9	10	11	12
Date												
Drag Brush												
Leaf Collection												
Court Inspection												
Weed / Moss Removal												
Outsourced Maintenance												
Facility Inspection												
Line Marking												
Drains / Fencing												
Usage – Playing Hours												

- Please initial under appropriate section on completion of in-house/outsourced maintenance activity
- Please photocopy this sheet and complete multiple sheets in order to create a continuous log
- Please also transfer the total number of ‘playing hours’ from your playing hours log
- This document may need to be inspected at any time by TigerTurf (UK) Ltd



Appendix C - Maintenance Equipment Advice

Equipment Schedule

In House (for essential routine maintenance)

- Compact Tractor e.g. Countax or Kubota
- Drag brush e.g. Flexicomb (*for fitting to the above*)
- Leaf Collector/Light weight Drag Mat e.g. Clean Sweep or Sweeper Collector
- Manual Drag Brush (for smaller areas)

NB Under no circumstances use heavy duty rubber or steel drag mats

Out Sourced Service Providers

TigerTurf cannot take any responsibility for any damage caused to the TigerTurf surface by third party maintenance contractors. Please ensure before employing specialist maintenance providers that guarantees are provided and comprehensive indemnification is in place to cover any unlikely damage.

If you are unsure about any aspect of maintaining your TigerTurf surface please do not hesitate to contact us on 01299 253966.



Appendix D1 - Playing Hours Log Guidelines

Introduction

Most national governing bodies have, or are, moving towards a requirement to be able to assess the maintenance frequency on synthetic turf courts, by the amount of usage. Playing hours will now become the norm for this measurement as they consider all aspects of surface usage, and encompass information such as court size, the number of users, and the activity.

Calculations

TigerTurf benchmarks for working out the “playing hours” are as follows:-

- One playing hour is defined as 4 players for a single court at 600m² for a 1 hour booking

A playing hour can be calculated using the following formula:-

- Number of players (a) divided by the constant benchmark of 4 (b) multiplied by the constant benchmark of 600m² (c) divided by the actual court size (d)

Example – If you have a tennis court with the dimensions of 35.3m x 17m i.e. 600.1m² (d) and it is used for 1 hour by 4 players, the playing hours are calculated as follows:-

$$\frac{(a) 4}{(b) 4} \times \frac{(c) 600}{(d) 600.1} \times 1 \text{ (booking hour)} = \mathbf{1 \text{ Playing Hour}}$$

For another booking, on the same court, but used for 2 hours by 2 players, the playing hours are calculated as follows:-

$$\frac{(a) 2}{(b) 4} \times \frac{(c) 600}{(d) 600.1} \times 2 \text{ (booking hours)} = \mathbf{1 \text{ Playing Hour}}$$

Some examples using the TigerTurf Playing Hours Log (see following page) are detailed below:

Date	Time	Activity	Booking Duration	No. of Players	Playing Hours	Signature
10/11/13	13:00	Tennis (Court 1)	3	4	3	
10/11/13	16:00	Tennis (Court 1)	2	4	2	B Jones
10/11/13	16:30	Tennis (Court 2)	3	2	1.5	
11/11/13	09:00	Tennis (Court 2)	1	4	1	

