

Taking Care of Your Artificial Turf

INFILL

If you have further questions, contact

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Please distribute this manual to those responsible for the day to day care of the turf field and see that they are thoroughly familiar with is contents. You should also review the warranty provided with the turf system for specific prohibitions and limitations contained therein.



How to Care for Your Artificial Turf

Introduction to Daily Use

THIS MANUAL OUTLINES SIMPLE DAY-TO-DAY CARE AND THOSE OCCASIONAL SPECIAL PROCEDURES NECESSARY FOR MINOR REPAIRS, SNOW REMOVAL AND UNUSUAL EVENTS OR USES. THE FOLLOWING ARE GENERAL KEYS TO PRESERVING YOUR TURF SYSTEM.

- I. Daily Usage
 - 1. Footwear should be restricted to ½" molded cleats
 - 2. Stance areas for baseball/softball, Lacrosse and soccer goal mouths face abnormal wear patterns and must be monitored daily.(See section II)
 - 3. Band Practices may cause abnormal wear and the field must be monitored for rubber loss in high traffic areas.
 - 4. Pets or animals should not be allowed on artificial turf areas.
 - 5. Non authorized vehicles should not be allowed on turf. Light machinery such as Gators, tractors and golf carts are permissible with turf tires only.
 - 6. No food, chewing gum, sunflower seeds and/or tobacco products on playing surface.
 - 7. Daily cleaning of surface should be hand-picked. Vacuums with dual motors and leaf blowers recommended.
 - 8. Turf grooming and cleaning must be done by trained staff and authorized equipment
 - 9. Steps must be taken to prevent dirt/debris from collecting onto surface from nearby trees and parking lot trash.

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I. CLEANING AND STAIN REMOVAL

GENERAL

Rain is your best cleanser. Rainfall gently cleans the turf fibers of dust, pollen and airborne pollutants in way that is difficult to duplicate in any other fashion. In areas where rainfall is scarce- or during prolonged periods of drought- an occasional water flush is beneficial to soak and thus cleanse the turf system this procedure is recommended for all turf systems.

HOWEVER, THE MOST OBVIOUS CLEANING NEEDED is the removal of litter deposited by users and spectators at events held on the field. Good housekeeping practices will minimize these problems:

- Keep trash and litter containers on site make sure there are enough containers to eliminate overflow.
- Route field traffic in such a way as to minimize mud and dirt tracking on to the field.
- Set up drinks for athletes during practice breaks off the field itself, if possible.
- Enforce a smoke-free environment, if possible, and discourage the use of tobacco products such as chewing tobacco.

LITTER REMOVAL

Paper, peanut shells, sunflower seeds, athletic tape, paper, etc., should and can be removed most easily with a lawn sweeper or a motorized vacuum sweeper immediately after any event.

When using these machines, several points should be observed so the machine does not damage the turf.

BRUSH SETTING

The sweeper should have synthetic fiber bristles such as nylon or polypropylene. **The brush** must contain no metal or wire! (Metal bristles or fibers can create a safety hazard in addition to damaging the turf in use.)

Proper cleaning should go against the grain along the seams and try not to cross over of the seams.

LOAD LIMITATIONS

Brushing and brush cleaning may require several trips over the field to finish the operation. Any sweeper that weighs more than 135 kg or 298 lbs. should have pneumatic tires with a maximum tire pressure of 35 pounds per square inch (psi) or 2.46 kilograms per square centimeter (kg/cm²). Do not park vehicles on the turf, especially in the heat of the day, or leave vehicles on wet turf for long periods of time.

VEHICLE EXHAUST!!

Never leave a parked vehicle idling on the turf in order to prevent the possibility of burning or melting the turf due to exhaust or overheating. Make certain the hot engine exhaust is never discharged in the field when using any kind of vehicle.

OIL SPILLAGE

Care should be taken to prevent lubricating oil, grease, transmission fluids, etc., from dripping or spilling on your turf surface during sweepings. Such spills can discolor the turf. Proper maintenance procedures should be observed in this regard. Battery acid and other fluids should not be allowed on the turf. Never change or add fluids to maintenance equipment while on the turf surface.

FREQUENCY

The removal of loose rubbish and surface dust should be performed on an as need basis, generally about twice a month during heavy use periods.

Stain Removal

GENERAL

Polyethylene pile fibers are among the most stain resistant fibers. Most "stains" on Sporturf™ fields are not true "stains" but rather residues of foreign matter that must be promptly and thoroughly removed.

Such "stains" on wet fields can be removed with water or soap and water. The first rule is promptness. It is much easier to clean up a fresh spill before it has time to dry and harden. Remove any solid or putty-like deposit promptly using a dull knife or spatula-like tool. Blot up excess liquids with a stack of towels, cloth or paper. Dry absorbent clay based materials; such as kitty litter absorbers can be very useful and should be stored on site. Such dry absorbers can be swept or vacuumed up.

PROCEDURE FOR REMOVING "STAINS" AND OTHER BLEMISHES

A. "Water Borne" Residues

Most "stains" commonly associated with playing fields can be classified as "water borne" stains. These stains are best removed using a warm, mild solution of granular household detergent (nonabrasive).

TYPICAL WATER BORNE "STAINS"

Acid Alcohol Alkali
Ice Cream Latex Paint Milk
Urine Water Colors Fruit Juice

- 1. Brush the residue with a stiff fiber brush.
- 2. Scrub the area with soap and water.
- 3. Rinse the area thoroughly with clear water to remove all traces of soap.
- 4. Dry with absorbent towel, if necessary.

A three percent solution of ammonia in water may be used in lieu of household detergent for more stubborn residues or stains.

B. Persistent or Oil Based Stains

Follow directions below:

PROBLEM: Crayon, furniture stain, lipstick, metal polish, cooking oil, rubber cleat marks, shoe polish, suntan oil, ballpoint ink

PROCEDURE: Sponge with perchloroethylene (dry cleaning solution). Blot with absorbent towels.

PROBLEM: Oil paints

PROCEDURE: Blot immediately. Sponge with turpentine or paint remover (apply sparingly). Blot with detergent and water. Re-sponge with cold water. To remove detergent. Scrape excess. Sponge with perchloroethylene (dry cleaning solvent). Repeat steps as necessary.

PROBLEM: Nail Polish

PROCEDURE: Sponge with acetone.

PROBLEM: Paraffin Wax

PROCEDURE: Scrape excess. Sponge with perchechlorethylene (dry cleaning solvent).

PROBLEM: Tar and Asphalt

PROCEDURE: Scrape excess. Sponge with perchechlorethylene (dry cleaning solvent).

Caution!!

Mineral spirits and other petroleum based solvents are highly flammable. Do not smoke or permit open flames near container or near solution when in use. Be sure the area is well ventilated.

C. Animal Waste

Neutralize with mixture of white distilled vinegar in an equal amount of water. Flush thoroughly with water after application. An enzyme type of cleaner is also effective.

D. Chewing Gum

Spray with Freon and scrape to remove residue (available in aerosol packs from carpet cleaning suppliers- or use dry ice).

E. Fungus, Mold Spots or Moss

Use **Game Plan 4 Turf**® at a rate of **1 gallon** of concentrate per **11 gallons** of water to cover 12,000 sq/ft. and spray thoroughly. Do not use high pressure water spray with stream force in excess of 2500 PSI as this can severely damage the turf. **Game Plan 4 Turf**® is an EPA registered disinfectant. Mr. Clean and Vital Oxide perform as needed but have not been EPA approved.

Protect Your Turf

1. Spread the load!

Remember that chairs and high heel shoes create high psi levels on the turf and put the system at risk. The basic precaution is to keep long term static loads below 2.46kg/cm² (35 lbs/in²) by means of load spreaders. The best, most economical load spreader is outdoor plywood. Be sure to spread a polyethylene sheet under the plywood to protect the turf. Sheets of plywood are ideal and readily available. 19 mm thick plywood is recommended as long as the loads are not excessive (such as a concert stage or sound systems). If chairs are placed directly on the turf, inspect chair leg bottoms to be sure jagged or sharp ends cannot cut the turf. Metal chair legs should be protected with rubber tips. Wooden legs should be free of any projection sharp enough to cut the turf. Porta Four® by Sport Court® is an easy for use roll out product approved for Sporturf™.

2. Ban Open Flames!

No such acts should be allowed on the turf for obvious reasons.

3. Clean Up Immediately!

Animal waste should be removed and the area flushed thoroughly. The field should be inspected for damage so that small problems do not become major repair cases.

4. Ban Smoking!

Cigarettes cannot ignite the turf but they can damage the turf. If large crowds are expected, a cigarette ban should be enforced. However, in these cases, even if heavy loads will not be present on the turf, the turf should be covered.

SNOW AND ICE REMOVAL

SNOW AND ICE ARE NOT HARMFUL TO ARTIFICIAL TURF and generally should be left to melt system without assistance. At times, however, it is necessary to remove snow or ice to make the field playable for a scheduled event. The working principle for removing snow is to do so as near to game time as possible. This reduces the likelihood of new snow buildup and will reduce the risk of ice from cold winds whipping across a damp, newly cleared surface. Because ice removal is more difficult, the **prevention** of ice buildup is important.

Sweepers

✓ If the snow is dry and powdery, it can be swept from the field using a rotary brush. Be careful that the machinery used is not set in such a way as to dig into the turf fabric.

EVENT PREPARATION

Controlled Products Turf fields are designed to be multi-purpose and as such host numerous non-athletic events such as graduation exercises, assemblies, convocations, shows, concerts, circuses, etc.

Generally, two areas of concern should be recognized:

- 1. These events can create loads on the turf that exceed the surface load limit set forth in the warranty and in the load limits outlines in this manual.
- 2. Large crowds and act on the turf generally fall outside the "designated uses" for the system and damage of the turf can occur unless it is fully protected.

Section II

II. MAINTENANCE SCHEDULE

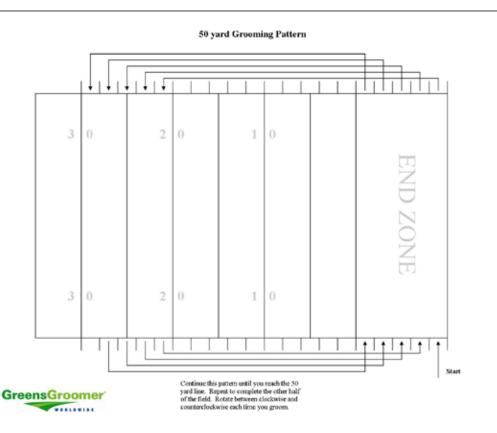
Daily: Check the field after each day's use for distribution and condition of the heavily played areas.

Weekly: Brush the surface of the field with a static (non-rotary) double brush including simultaneous vacuum devices to redistribute the infill, maintain vertical fibers, and a level playing "use" field.

Monthly: Check infill levels, seams, inlaid lines, etc., and report failures (if any) to the manufacturer. Also check for over compaction and de-compact as may be necessary. It is essential that the appropriate equipment is used in order to achieve the specified performance criteria.

Periodically: At least once a year a full grooming session should take place brushing (rotating unit), vacuuming, de-compacting, and grooming (static brush). Top dress with new infill may be required. Contact the manufacturer if any aspect of the maintenance process is causing a significant concern.

NOTE: These are minimum recommendations. Common sense and careful observation should prevail. If any serious doubt exists about the effectiveness of the maintenance regime or the condition of the field, contact with the manufacturer should be made.



Optional Equipment

VACUUMING AND BLOWER SWEEPING

A) Leaf Blower sweeping is an easy and quick way to blow all debris off the surface and into piles for easy hand picking. Commercial leaf blowers (pic below) are a great way to work debris to the side of the field.



B) Vacuuming helps keep the fibers to stand upright and maintains a fresh look by picking the debris off the field. Dual Motor vacuums or **Bill Goat/Bear Cat** type lawn vacs recommended.



WASHING AND CLEANING

A) Washing/Spraying the field with a cleaning agent comprised of Game Plan 4 Turf® helps

keep the fibers clean and the field looking fresh. DO NOT WATER TURF 3 HOURS

BEFORE OR AFTER SPRAYING!

WATERING/COOLING THE SURFACE

Synthetic fibers are reflective in design to prolong exposure to sunlight. This design can

cause heat patterns that can be overcome by watering the field. In many instances,

coaches, players and trainers prefer to wet the turf down during use in order to lower the

temperature/humidity index. This is a good idea and recommended because in periods of

very hot weather. A wet field provides evaporation, which indeed lowers the temperature of

the field rapidly.

The temperature of wet synthetic turf fields should match that of natural grass in the same

area. Remember that evaporation can be very rapid (up to 1,200 gallons of water per hour

on an average sized field) so with long uses of the turf, an additional sprinkling may

become necessary. Try and distribute the water evenly over the field area to be used while

avoiding sidelines etc.. Never Use water from a polluted supply!

SAMPLE PROGRAMS: Programs designed to saturate infill and keep heat levels down

through the day.

(Note: Hot overcast days generally do not have as high of a heat buildup as a moderate clear sunny day.)

SAMPLE: 2 a day practice schedule (9:00 am and 4:00 PM)

8:00 Am: Water field for 10 minutes before practice

12:30 PM: Water field for 5 minutes

1:30 PM: Water field for 5 minutes

3:00 PM: Water field for 5 minutes

SAMPLE: 3:30 practice, sunny high near 95

10:00 Am: Water field for 15 minutes

12:30 PM: Water field for 10 minutes

2:45 PM: Water field for 10 minutes

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Maintenance Log

MAINTENANCE LOG DESCRIPTION

❖ COLUMN 1 - DATE

Put the date in which the maintenance was performed.

COLUMN 2 - WORK PERFORMED BY

Put the name of the person who performed the work on the field.

COLUMN 3 - DESCRIPTION OF WORK PERFORMED

In this column a brief description of the work completed will be needed. Some example would be: grooming, sweeping, seam maintenance, etc. If it is maintenance on a seam, then put a brief description of the seam. Seam length, width, etc.

COLUMN 4 - LOCATION OF MAINTENANCE PERFORMED

If the maintenance is grooming or sweeping, write whole field. If maintenance is maintenance on a seam, then write the location of the seam. Example: 30 yard line between the hash marks, down the third baseline thirty paces, etc.

DATE	WORK PERFORMED BY	DESCRIPTION OF WORK PERFORMED	LOCATION OF MAINTENANCE PERFORMED

DATE	WORK PERFORMED BY	DESCRIPTION OF WORK PERFORMED	LOCATION OF MAINTENANCE PERFORMED

III. MINOR REPAIRS

Because most Sporturf™ Fields are used heavily in the fall and winter months, good maintenance practice is to thoroughly inspect the field in the spring and make repairs to the surface in the spring and early summer. If a service visit must be scheduled, we ask that such a request be made as soon as possible in the spring so that the visit may coincide with a scheduled service trip to other fields in your area or in conjunction with the installation of a new field in your area.

All seams should be inspected carefully for looseness. All panels of turf should be inspected for damage, rips, tears, burns, etc. Make a sketch of the pitch and note on the sketch each area that needs attention.

Whether performed by the installer or by the Owner, all repairs must be made in warm, dry weather. Gluing seams and sanding the turf should not take place if the field is wet or even damp.

"MINOR" VS. "MAJOR" REPAIRS

Experience has taught us that most field repairs are minor in nature. However, minor problems can become major problems quickly if not corrected. Small loose spots on glued seams extending a few inches to a foot or two are to be expected with these systems and are not unusual or cause for great concern. They can generally be repaired by the owner's maintenance staff. Cuts, rips and tears in the surface that do not exceed six inches or so in length do not generally require a special trip by our service staff and can also be repaired by the Owner without much effort. These problems should be regarded as minor unless allowed to grow.

SEAM REPAIRS

These instructions refer to loose seams, typically from a ½" to ¾" in length along the seam.

If the seam openings over 3/4" is considered severe, the user should contact Sporturf® for prompt assistance.

To repair minor seam openings or loose seam areas:

- 1. Vacuum the turf to be repaired.
- 2. Be sure fabrics to be glued are free from loose sand, dirt, old adhesive and other foreign matter, and are dry.
- 3. Clean the area to be repaired and wipe the opening with methyl-ethyl-key tone (MEK), toluene, or, if neither is available, with mineral spirits.
- 4. Position the fabric to check for satisfactory final placement.
- 5. Inject a small amount of adhesive (**PL Polyurethane caulk**) from the adhesive bottle on to the seaming tape. Avoid excessive adhesive to reduce the possibility of bleed through or bleed out. Spread the adhesive with a knife or spatula so that the entire fabric is coated lightly, but evenly.
- 6. Prop open the seam so that the adhesive is allowed to cure in the open air. (The adhesive is a brand of polyurethane adhesive and must be allowed to absorb moisture from the air to "kick" or activate.) Allot at least 10 minutes of curing time before closing the turf and weighting it down. This curing time recommendation is critical and is based on and ambient temperature of 75°F with 50% relative humidity. If the weather is colder or dryer, the open time should be extended until the adhesive spread on the fabric seems almost "dead" i.e., only small strings ("angel hairs") of adhesive stick to your finger or a piece of turf when pressed into the bed of adhesive and removed.
- 7. Press the fabric into the adhesive bed uniformly.
- 8. Weigh down the area and allow curing for at least 24 hours.

Other Typical Repairs

CIGARETTE BURNS

A lit cigarette can damage any turf system. On rubber-infill pitches, the cigarette may scorch and blacken the turf. Use a metal brush (such as is used to remove paint) and brush the spot vigorously to separate the fibers. If brushing the turf does not remove the damage, take a razor knife and cut the fused area away.

If fabric seams or tears have gone beyond the scope outlined above, the installer should be contacted immediately for assistance, advice or to request a scheduled service visit. Any damage to the pad, de-lamination between the pad and turf, undue loss of sand, vandalized areas or dis-colorations should be reported to Sporturf $^{\text{TM}}$.

CONCLUSION

With the many advances in turf design, installation techniques and materials fields are even less maintenance intensive than ever before. Compared to natural grass fields, **Sporturf™ fields should be considered virtually "maintenance free" but no surface should be thought of as care free.** However, your field will perform, look and feel better for a longer period of time if the maintenance procedures outlined in this manual are followed closely. The manual attempts to encounter and answer the most frequently asked questions regarding your field. However, there are always new uses, new problems and unanticipated twists or needs. Do not hesitate to call us!

PROHIBITED ACTIVITIES

- Storage or materials such as drums, lumber, equipment, etc...
- O Unnecessary vehicular traffic.
- O Golfing, shot putting, javelin or discus throwing, and the use of long spike track shoes associated with cinder tracks.
- Open flames, fireworks, welding, etc...
- O Use of wire brushes in any form.
- No Heavy loads exceeding .21 kg/cm² (static) or 2.46 kg/cm² (dynamic).
- Use of cleaning equipment, methods or materials not authorized.
- No High pressure water sprays exceeding 21 kg/cm²
- Vehicles with non-pneumatic tires.

Key Points to Remember

- Keep the field clean. Sweep and hose the field as needed per this manual. Keep plenty of trash and litter containers on site for participants to use.
- Cross brush the turf surface often!
- Keep vehicular traffic off the field as much as possible.
- Post NO SMOKING signs around the turf.
- Don't abuse the turf by overloading it. Use plywood and fabrics to protect the turf especially if special events are scheduled on the field.
- Make minor repairs. Report major problems to Sporturf® right away.
- Follow exactly the recommendations and procedures incorporated in this manual.

APPROVED PRODUCTS

Adhesives/Paint:

PL Polyurethane (outdoor use in red/yellow label only) (800) 999-8920

Mapai 2 Part Seam Repair Kit

Pioneer Titan Paint (800) 748-9649

Cleaning Agents:

Game Plan 4 Turf® by Pioneer (800)748-9649

Vital Oxide®

Mr. Clean with Fabreeze (Multi-Surface Concentrate)

Maintenance Equipment:

Laymor® Ride On Sweepers (800) 323-0135

Wiedenmann USA Super 120 M (pull-behind) (912) 790-3004

Bear Cat by Echo or Billy Goat Vacuums

Force Blower by Billy Goat or other walk behind commercial blowers

Greens Gnome or Turf Cat

Greensgroomer

