

Athletic Surfacing...Synthetic Technology

Field Maintenance Procedures

Toll Free: 888-777-6910 www.aturf.com

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1. Congratulations on Your Investment

Dear A-Turf Client,

The investment in a new synthetic field is a special time for the community. Congratulations on a job well done!

A primary reason for having a synthetic field is the awesome "utility" that it brings to the athletes and students that use it.

The virtually unlimited amount of use your A-Turf field will provide is sharply contrasted with the minimal amount of maintenance that's recommended.

But, there is some maintenance that's vitally important to ensuring you get the most out of your A-Turf field.

Take a few minutes to review this document and let us know what you might need clarified.

Thanks for partnering with A-Turf, Inc.

Respectfully,

Jim Dobmeier President & Founder

2. Contact Information for A-Turf, Inc.

Corporate Headquarters Mailing Address:

A-Turf, Inc.
P.O. Box 157
Williamsville, NY 14231
888.777.6910
716.204.0189 (fax)
www.aturf.com

Corporate Headquarters Physical Address:

A-Turf, Inc. 45 Earhart Dr. Suite 102 Williamsville, NY 14221

Warranty & Maintenance Inquires:

A-Turf, Inc.

Attn: Matt Dobmeier (matt@aturf.com)
Operations Department
888.777.6910
716.204.0189 (fax)
716.597.6420 (cell)

3. Explanation of A-Turf's Warranty Coverage

What is Covered by A-Turf's 8-Year Warranty:

- The warranty shall cover any and all defects for failures relating to synthetic grass seam ruptures, synthetic yarn UV stability, and excess wear and tensile strength.
- G-Max readings per specifications and contract.

What is **NOT** Covered by A-Turf's 8-Year Warranty:

- Abuse or deliberate acts of vandalism.
- Accidents or acts of God.
- Issues due to lack of regular maintenance.
- Static or dynamic loads exceeding A-Turf's recommendations.
- Use of improper cleaning or maintenance methods or equipment.
- Infill materials to keep infill at appropriate levels.
- Damage by footwear having metal cleats, spikes or similar projections other than the conventional football, soccer or baseball shoes having cleats of not more than ½" in length, and other conventional running track shoes having spikes of not more that ¼" in length.
- A-Turf disclaims all warranties related to the base, and does <u>not</u>
 warrant the percolation rate, long-term planarity or compaction of the
 base on which the Surface is installed, except in those cases where the
 construction of the base is in the scope of work for which A-Turf is
 contracted to perform. A-Turf's acceptance of the base is limited to
 visual inspection.

NOTE: ALL FIELD MAINTENANCE OR REPAIR WORK MUST BE PERFORMED BY ONE OF THE FOLLOWING AUTHORIZED PARTIES: PROPERLY TRAINED BY A-TURF SCHOOL PERSONNEL, PROPERLY TRAINED BY A-TURF OWNER'S REPRESENTATIVE PERSONNEL (IF THE FIELD IS NOT AT A SCHOOL), AN A-TURF CERTIFIED OR APPROVED FIELD MAINTENANCE COMPANY, INSTALLATION CREW OR TURF TECHNICIAN. ANY FIELD MAINTENANCE OR REPAIR WORK PERFORMED BY A PARTY OUTSIDE THIS AUTHORIZED LIST WILL CAUSE THE WARRANTY TO BECOME VOID.

Examples of Normal Wear

- Fibers lying down.
- Occasional loose fibers.
- Migration / Loss of infill.

4. A-Turf's Responsibility

Major Seam Repairs:

• We will perform all seam repairs within a reasonable time after receiving written notice and photographs from the client.

G-Max Rating:

 We warrant that the G-Max of the surface will fall within the values established in the specifications and the contract. Please see executed warranty for details.

Procedures to Report & Schedule Warranty Work:

- Call the A-Turf Operations Department to schedule (see Section 2 above.)
- Follow up with field drawing / rendering of areas/photographs that require seam repair (See Section 11 for Warranty Work Forms).
- Provide the schedule for field availability.

Customer Support:

 A-Turf commits to outstanding client service. Please call us at 888.777.6910 if you have any questions or concerns with your A-Turf field.

5. Client's Responsibility

Infill Maintenance:

- A-Turf's warranty does not cover the maintenance of infill levels. Infill
 maintenance requires that the owner perform periodic inspections of
 the infill level so it is approximately equal to the levels at installation
 completion. The owner must maintain an infill level within 1" of the
 fiber tip on all parts of the field.
- Evaluation of infill decomposition by an independent provider is recommended at some point in year 5 and the end of the warranty period. The hiring of such a service provider is the owner's responsibility.
- The owner shall maintain documented records showing infill maintenance is being done on a regular basis.

Protection from Vandalism:

- A-Turf's warranty does not cover damage of any kind from acts of vandalism. It is the owner's responsibility to protect the A-Turf field from vandalism and to cover the loss of damage due to vandalism.
- Mistreatment or vandalism might cause damage requiring major repairs including localized turf replacement. Smaller burns will cause a fusion of the pile fibers at the tips. In this instance, clean the area, brush up the fiber and remove charred areas by carefully scraping them with a knife or brushing with a stiff metal or fiber brush.

Regular Field Inspections of "Hot Spots":

- Regular inspection of "hot spot" areas (as defined in Section 6).
 Add infill and / or redistribute infill regularly in these areas.
 - This is one of the most important ongoing tasks of keeping the entire field playing well and realizing its maximum potential life expectancy.

Seams:

- Minor seam and game line repair (see Section 8 for directions).
- Do not cut, seam, sew, remove or in any way attempt to repair major turf damage. If extensive damage occurs, contact A-Turf.

Regular Grooming:

Groom the field every 4 to 6 weeks during active use.

General Maintenance Procedures:

- Initial Requirements: After installation, your new A-Turf field will go
 through a "settlement" process. During this period, which can range
 from a few weeks to an entire season, the infill will slightly compact and
 settle into the synthetic fiber matrix. Regular daily use of the field and
 rainfall will help to accelerate this process. During this period, there is
 no need to brush the field more than once or twice, as excessive
 brushing will slow proper settlement.
- Dirt & Grime: Rain is a very good cleanser. Rainfall will wash the turf
 fibers of dust, pollen and airborne chemicals. If necessary, you can also
 spray the field with a portable irrigation system to clean the surface;
 this will enable the flow of any contaminants through the turf. Do not
 use any type of rotary brush with steel bristles to clean any area of the
 field as this will damage the fiber and dislodge the infill.
- Litter Removal: It is very important to remove trash, debris, leaves and other materials from the field in a timely manner, thus preventing any of these materials from working into the fiber/infill matrix. Good, common sense housekeeping practices minimize the accumulation of litter. Place trash containers on site; set up drink stations for players off the playing field; and vigorously enforce a non-smoking and non-tobacco chewing ban on the field. Paper, peanut shells, sunflower seeds, athletic tape, paper, etc., should be removed immediately after any event.

The best procedure to remove trash or debris from the field is a backpack type or pull behind blower. The blower will move the trash and debris off the field without disturbing the infill. It is recommended that the trash and debris be blown off the field to a hard surface (track or asphalt) where it can be swept up and disposed of. This is a process that can also be performed during the fall to remove leaves and branches.

While a sweeper can also be used to remove debris off the field, extreme care should be taken so that the brushes of the sweeper do not disturb the infill. The brushes on the sweeper should be set so that they only touch the tips of the fibers while removing the trash. The bristles on the sweeper brush should be plastic. **NEVER USE BRUSHES WITH STEEL OR METAL BRISTLES**.

- **Vehicle Exhaust:** In order to prevent the possibility of melting the turf due to exhaust or overheating, never leave an idling vehicle parked on the turf surface.
- Oils & Fuel Spills: Oil and fluid spills can discolor and permanently damage the turf. Proper vehicle maintenance should be observed. Battery acid and most other fluids should not be allowed on the turf. Never change or add fluids to equipment while the equipment is parked on the turf surface.
- **Stains:** Polyethylene fibers are among the most stain resistant because most potential stains are moisture borne and polyethylene, a "hydrophobic" yarn, absorbs little moisture. Spills are best removed while still moist and prior to drying before they have dried on the fibers.

These residues can generally be removed with water or soap & water. Again, it is much easier to clean a fresh spill before it has time to dry and harden. Remove any deposit promptly using a putty knife or similar tool, then soak up excess liquids with paper towels, cloth towels or rags.

- **Animal Waste:** Remove as necessary. Neutralize residue with white distilled vinegar in an equal amount of water. Flush thoroughly with water after application.
- **Chewing Gum:** Remove by using hot water and soap and/or ice. Work affected area with a putty knife.
- **Fungus, Mold & Mildew:** Use a solution with 1% hydrogen peroxide and 99% water. Apply with a sponge, and allow time to soak in. Flush thoroughly with water after application.
- **Blood:** Mix 50/50 blend of bleach & water. Spray on area. Let stand 10-15 minutes. Flush thoroughly with plenty of water.

Note: Do not use high-pressure water spray with stream force in excess of 250 psi as this can damage the turf and displace the infill.

- **Field Markings (Paints, Etc.):** Paint should be applied lightly and evenly to reduce the likelihood of paint buildup. An airless field marking paint unit is best suited for field painting.
- **Paints:** Paint should be applied when the surface is dry and clean. It is recommended that field paint be applied when temperatures are above 50 degrees.
 - ✓ Two coats of field paint can be expected to last through a sport season.
 - ✓ Recommended paints include the following: Pioneer Titan-R and World Class Classic Field Marking Paint.
- **Load Limits:** A-Turf recommends that neither long-term static load of more than 3 psi, nor dynamic loads of more than 35 psi be allowed on the surface. *Note: The loading of a pneumatic-tired vehicle is approximately equal to the air pressure in its tires.*

Sheets of 3/4" thick exterior grade plywood are ideal to spread loads. Cover the turf with plastic or standard geotextile prior to placing wood on the surface as this keeps the turf clean.

Ceremonies and other events that require chairs can be held on the surface as long as the chair legs are not sharp. Flat rubber caps on the leg bottoms are ideal. Always consider Turf protection systems.

- **Snow & Ice Removal:** Snow and ice can be allowed to melt on the surface. If it is necessary to remove snow or ice for an event or use, the following procedures should be observed:
 - ✓ Remove snow in layers as near to game time as possible.
 - ✓ Because ice removal is more difficult, the <u>prevention</u> of ice buildup is important.
 - ✓ A-Turf recommends the Pro-Tech Turf Pusher for the removal of snow from the field.
- **Sweepers/Snow Blowers:** If the snow is dry and powdery it can be swept from the field using a rotary brush and/or snow blower.

If a snow blower is to be utilized:

- ✓ Remove in layers if deep snow.
- ✓ The first pass of the blower should be made down the center of the field, from goal to goal.
- ✓ The second pass should be made at the edge of either side of the
 first pass and the blower should now deposit the snow in a trailer
 or truck.
- ✓ The blower can move on down one side of the field and up the other followed by the truck.
- ✓ Brush off the remaining snow with a broom.
- Removing Snow by Means of a Rubber-Tipped Snow Plow: The blade may be mounted on a light tractor. Extreme care must be exercised. The blade must be configured <u>above</u> the surface. This results in rolling the snow ahead of the blade. Remove the snow in layers only. Push the

snow gently into piles. Carefully scoop the snow into trucks or trailers using frontend loaders (Bobcats). Avoid contact between the equipment and the turf. Finally, employ a rotary broom or snow blower to clean off the remaining snow (see procedure above for removal with a snow blower).

Note: Chains and studs will damage the surface and should never be used on the field. Only use pneumatic tires. Do not park equipment on the field for extended periods of time. If the tuft begins to stretch or move during the snow removal this process, discontinue the procedure and call A-Turf.

• **Ice Removal:** It may be necessary to route a weighted lawn roller over the field to break up ice. The broken ice can then be swept off the field. Ice melts rapidly with sunshine.

If there is excessive ice buildup prior to a scheduled event, an alternative is the use of chemicals to melt the ice. If used, remember to thoroughly flush the chemical residue off the field as soon as weather permits.

If the surface is heavily iced over, broadcast "Urea" (fertilizer-grade in pill or granule form) at a rate of approximately 100 lbs. per 3,000 sq. ft. The amount required will vary according to the thickness of the ice and the temperature.

After spreading, the Urea should be allowed to remain on the ice for at least ½ hour to promote melting, and then removed from the field with a water removal machine, squeegee, sweeper or other suitable apparatus. Urea will not melt ice at O°F and has limited effectiveness at very low temperatures.

Urea residue must be thoroughly washed off the field as soon as possible.

Do not use salt, rock salt, calcium chloride, ammonium nitrate or other corrosive or toxic chemicals to melt ice on turf surfaces. Their presence can damage the turf, and be harmful to players and equipment.

Event Preparation (Concerts, Circuses, Tractor Pulls, Etc.):

- ✓ Tuff covers should be used and with some events must be used.
- ✓ These events can create loads on the turf that exceed the surface load limit set forth in the warranty and in the load limits outlined in this manual. Spread the load.
- ✓ Large crowds on the turf generally fall outside the "designated uses" for the system and damage of the turf can occur unless it is fully protected.
- ✓ We recommend that concert promoters carry special insurance and that the owner be named on the policy.
- ✓ **Ban Open Flames!** Never allow fireworks on or near the field without covering the field with a tarp or other covering.
- ✓ Clean Up Immediately!
- ✓ Ban Smoking!

• Prohibited Activities:

- ✓ Storage for materials such as drums, lumber, etc.
- ✓ Use of the turf as a construction work area or general parking area.
- ✓ Golfing, shot putting, javelin (steel tipped) or discus throwing, and the use of spike track shoes.
- ✓ Open flames, fireworks, welding, etc.
- ✓ Use of wire brushes.

- ✓ Heavy loads exceeding 3 psi (static) or 35 psi (dynamic).
- ✓ Use of cleaning equipment, methods or materials not authorized by A-Turf.
- ✓ High-pressure water sprays exceeding 250 psi.
- ✓ Excessive vehicle traffic and vehicles equipped with nonpneumatic tires.
- ✓ Use of the field as a parking lot.
- ✓ Use of the field to land helicopters.

6. Hot Spots: They Require Special Attention!

Football:

- Two kickoff marker areas.
- Two extra point mark areas.
- Center of the field, between the hash marks.

Soccer:

- Four corner kick areas.
- Two penalty kick areas.
- Four goal kick corner areas.
- Goalkeeper's prime areas.

Girls' and / or Women's Lacrosse:

• Two goal crease areas.

Boys' and / or Men's Lacrosse:

• Two goal crease areas.

<u>Field Hockey</u>:

• Two penalty shot areas.

Baseball and / or Softball:

- Batter's box area.
- Catcher's area.
- Pitcher's mound.
- First base areas.
- Second base area.
- Infielders' prime areas.

7. Proper Grooming Procedures & Techniques

Field Grooming:

- Fields should be groomed once every 4-6 weeks during periods of heavy use.
- Several different grooming devices are acceptable for use in grooming the field. A-Turf recommends the GreensGroomer synthetic turf conditioning unit as manufactured by WorldWide, Inc., 888.298.8852. Please call the A-Turf office for additional information.

8. Minor Repair Procedures

Directions for Minor Repairs:

- 1. Use a wet/dry vacuum or shop vac.
- 2. Make sure container of shop vac is thoroughly clean, as infill vacuumed from seam area will be reused.
- 3. Thoroughly vacuum all infill from seam, along length of seam and several inches to either side.
- 4. Peel open seam carefully thoroughly vacuum all infill from seam- tape underneath seam.
- 5. Purchase *PL Premium Polyurethane Construction Adhesive in a yellow caulking gun tube or *LEXEL Adhesive in a clear caulking gun tube from any home improvement retailer. Do not use alternative adhesives.

NOTE: See Section 11 for the directions on the usage of the PL® PREMIUM POLYURETHANE CONSTRUCTION ADHESIVE or LEXEL ADHESIVE.

- 6. Thoroughly apply adhesive to length and width of exposed seam tape.
- 7. Carefully fold turf back together on top of adhesive clean off any excess adhesive that may rise to the surface of the turf when folded back together use either mineral spirits or methyl ethyl ketone (MEK) on a dampened rag to clean do not pour solvent directly onto turf.
- 8. Place a sand bag, cinder block, pail, etc. on top of repaired seam to hold down turf while adhesive cures make sure weight is placed along length of repair use a 2' x 4' along length to apply pressure as needed.
- 9. Allow approximately 3 hours for adhesive to setup and cure.
- 10. Distribute vacuumed infill along length of seam repair area.

- 11. Using a strong bristle broom or brush, brush infill into turf, applying just enough pressure to broom the infill into the fibers.
- 12. Seam repair is complete and field is now ready for use.
- 13. An "average" seam repair, 6" to 12" in length, should only take about 15 minutes to repair (must allow 3 hour adhesive setup time).

PL® Premium Polyurethane Construction Adhesive:

PL® Premium is a polyurethane adhesive that provides superior results and is safe to use. PL® Premium generates three times the power of traditional construction adhesives. It may be used inside or outside and will last as long as the surfaces it joins together.

How to Use:

To ensure positive adhesion, make sure the surfaces to be joined are clean and free of dirt and foreign material. Cut the smallest opening possible in spout (just large enough so adhesive can flow easily when gunned). Because of PL® Premium's unusual strength, much less adhesive is needed compared to traditional construction adhesives. Place cartridge in caulking gun and puncture seal inside spout with nail. Apply by forcing adhesive onto surfaces. When working on rough surfaces, use enough adhesive to fill gaps. PL® Premium will bridge up to 3/8". Use mechanical fasteners to hold the surface in place until the adhesive fully cures. Drying time might vary, depending on the humidity and porosity of the materials bonded together. PL Premium's reactive nature allows the formation of high strength bonds quickly. Many applications will develop full strength in less than 24 hours. Material may be repositioned up to 30 minutes without losing adhesive strength.



9. Maintenance Chart

Date	Groomed Field	Sweep Field	Inspect "Hot Spots"	Miscellaneous		

10. Miscellaneous

Warranty Work Procedures and Form:

Indicate approximate areas needing repair by marking with an "x" or similar on the attached form. Indicate the type of repair if you can (seam loose, low spot, wrinkle, etc.) and the person our serviceman should contact when he arrives at the field. Also, please indicate "North" or identifying marker so serviceman can readily identify which end of field.

Please copy and fax the attached form to A-Turf Operations Office at 716-204-0189.

Send photos with chart.

After reviewing what needs to be done, the A-Turf Operations Department will be able to determine a schedule for our serviceman to make these warranty repairs. We will then contact you with a schedule to see if it fits your needs. If there are any definite scheduled dates where our serviceman cannot have all day, unlimited access to any of the fields, please include that information on the form.

Please be aware that any repairs that appear to be vandalism or neglect will be repaired, but may require a charge from A-Turf for this work. These areas will be discussed with you before any repairs are made.

11. Warranty Work Form



Synthetic Turf for Maximum Performance

REPAIR(S) / WARRANTY WORK FORM

Project Name:		
Contact Name:	Date:	
Project Name & Location:		
Phone Number:	_ Field Availability Dates:	
Description of Repair(s) / Warra	nty Work:	_
	· · · · · · · · · · · · · · · · · · ·	
Sketch Location of Areas Needi	ng Repairs (use separate sheet if necessary	/):

Severe Maintenance – 250 or more games a year

	First - 3rd Week of installation	Weekly	Monthly	Quarterly	6 Months	Yearly	Every 2 Years	Year 5	Year 8	Notes
Remove Dirt/Litter	•	•	•	•	•	•	•	□●	•	
Grooming			•							
Inspect Base			•							
Check for Loose Seams						•				

Recommended Paints: Pioneer Titan R, World Class Classic Field Marking Paint