Pioneer® ATHLETICS

# SYNTHETIC TURF Maintenance Handbook

Paints | Stripers | Coatings | Equipment | Antimicrobials

ingredients matter.®

1.800.877.1500 www.pioneerathletics.com

# 1 SYNTHETIC TURF FIELD MARKING PAINT

| SPECIFICATIONS | |
|---|---|
| For use on | Infilled polypropylene & polyethylene turf systems |
| Coverage per gallon | 250 - 350 ft. x 4 in. (varies by speed and substrate) |
| Ideal air temperature at application | 50° – 90° F |
| Applied by | Airless striper set between 900-1000 psi |
| Recommended tip size | .317 or .319 |
| Dry time @ 70⁰ F | Dry to touch in 1 hour. Completely dry in 48 - 72 hours.* |
| Removal | Blitz remover solution, agitation, and clean water |

***High humidity and/or cool temperatures will result in longer dry times***

## GameLine®

GameLine is the perfect call when you need quality gloss paint that lasts one or two games and removes easily.

- Highly effective, industry proven removable synthetic turf painting system
- Maximum performance under the spotlight
- Ideal for short-term applications
- Removes easily with Blitz™ GameLine Remover Solution or Blitz™ HT
- Ideal for infilled turf systems
- Available in 25 colors; custom colors available.

## Bulk Synthetic Turf Colors:

White, Soccer Yellow, Yellow, Vegas Gold, Old Gold, Orange, Red
Sky Blue, Light Blue, Blue, Dark Blue, Navy Blue, Purple, Pink
Dark Burgundy, Dark Garnet, Burgundy, Maroon, Green, Turf Green, Dark Green
Silver, Gray, Black, Brown

**CUSTOM & METALLIC COLORS AVAILABLE**

## GameLine® Quick Release

- Formulated for great durability and easy removal in hot and dry weather environments
- Wont bake on to turf fibers
- Available in full GameLine color pallet

## GameLine® Fast Dry

- Formulated to dry faster than traditional GameLine in cool, damp environments
- Durable, yet easily removable with Blitz remover solution
- Available in full GameLine color pallet

## GameLine® Clear

- A clear, removable, bulk synthetic turf paint
- Used as a base coat before painting over inlaid lines and logos, making removal much easier

## Blitz™ & Blitz HT GameLine® Remover Solution

See page 6 for details

## GameLine® Aerosol

The only industry-proven removable aerosol paint for synthetic turf fields.

- Convenient, easily removable high gloss paint with the quality and durability of a permanent paint
- Ideal for short-term applications
- Removes easily with Blitz or Blitz HT GameLine® Remover Solution
- The only aerosol paint proven to remove with zero ghosting or staining
- Keep cans warm if painting in cold weather

### GameLine® Aerosol Colors

## GameLine® Aerosol Striping Machine

- 8" pneumatic wheels roll smoothly over turf
- Designed specially for the jumbo size GameLine Aerosol can

## SPECIFICATIONS

| | |
|---|---|
| **For use on** | Infilled polypropylene & polyethylene turf systems |
| **Application temp** | 25° – 90° F [1] |
| **Ideal air temperature at application** | Aerosol striping machine, marking stick, marking pistol, or by hand |
| **Dry time @ 70⁰ F** | Dry to touch in 20 minutes. Completely dry in 1 hour.* |
| **Removal** | Blitz remover solution, agitation, and clean water |

***[1] Keep cans warm if painting in cold weather***

****High humidity and/or cool temperatures will result in longer dry times***

**GameLine System Process**

**1.** Paint

**2.** Apply Blitz or Blitz HT GameLine remover solution.

**3.** Agitate.

**4.** Rinse with water.

## WHERE YOU HAVE SEEN GAMELINE®

Super Bowl XLVII
Super Bowl XLVIII
AdvoCare V100 Texas Bowl
All State Sugar Bowl
Autozone Liberty Bowl
Beef 'O' Brady's Bowl
Birmingham Bowl
Buffalo Wild Wings Citrus Bowl
Camping World Independence Bowl
Capital One Bowl
Chick-fil-A Bowl
College Football Playoff
Dollar General Bowl
East West Shrine Game
Famous Idaho Potato Bowl
Gildan New Mexico Bowl
Goodyear Cotton Bowl Classic
Hawai'i Bowl
Military Bowl
Quick Lane Bowl
R+L Carriers New Orleans Bowl
Raycom Media Camellia Bowl
Russell Athletic Bowl
Senior Bowl
St. Petersburg Bowl
U.S. Army All-American Game
Under Armour All-America Game

# 3 SYNTHETIC TURF FIELD MARKING PAINT

## ExtremeLine™

- Preferred choice for long-lasting applications on infilled synthetic turf systems
- Provides a uniform, high-gloss field marking with less paint build-up
- Extremely durable and non-removable

| SPECIFICATIONS | |
|---|---|
| For use on | Infilled polypropylene & polyethylene turf systems |
| Coverage per gallon | 250 - 350 ft. x 4 in. (varies by speed and substrate) |
| Ideal air temperature at application | 60° – 90° F |
| Applied by | Airless striper set between 900-1000 psi |
| Recommended tip size | .317 or .319 |
| Dry time @ 70° F | Dry to touch in 1 hour. Completely dry in 48 - 72 hours.* |
| Removal | Non-removable |

***High humidity and/or cool temperatures will result in longer dry times***
***See page 1 for colors***

## SeasonLine®

- Designed to remain on your field throughout one sports season
- Wears off over time, depending on weather and traffic
- Quality, gloss paint that stands up to rugged play
- For use on infilled turf systems

| SPECIFICATIONS | |
|---|---|
| For use on | Infilled polypropylene & polyethylene turf systems |
| Coverage per gallon | 250 - 350 ft. x 4 in. (varies by speed and substrate) |
| Ideal air temperature at application | 60° – 90° F |
| Applied by | Airless striper set between 900 - 1000 psi |
| Recommended tip size | Airless: .317 or .319 |
| Dry time @ 70° F | Dry to touch in 1 hour. Completely dry in 48 - 72 hours* |
| Removal | Over time with normal wear and weather. SeasonLine remover solution available if needed, but will require significant time & effort |

***High humidity and/or cool temperatures will result in longer dry times***
***See page 1 for colors***

# 4 SYNTHETIC TURF FIELD MARKING PAINT

| SPECIFICATIONS | |
|---|---|
| **For use on** | Nylon turf systems |
| **Coverage per gallon** | 250 - 350 ft. x 4 in. (varies by speed and substrate) |
| **Ideal air temperature at application** | 50° – 90° F |
| **Applied by** | Airless striper set between 900 - 1000 psi<br><br>Low-pressure at 40 psi (paint must be diluted) |
| **Recommended tip size** | Airless: .317 or .319<br><br>Low pressure: 9504 |
| **Dry time @ 60⁰ F** | Dry to touch in 1 hour. Completely dry in 3 days |
| **Removal** | Non-removable |

****High humidity and/or cool temperatures will result in longer dry times***
****See page 1 for colors***

## Titan®

- Exclusive formula contains Halogen® 2000 for outstanding brightness
- Creates long-lasting lines
- Maintains flexibility and crisp, bright lines throughout the season and severe weather
- Dries to a smooth, flexible coating which is less abrasive to players and less slippery than other turf paints
- Designed specifically for nylon, non-infilled turf systems
- Available in 24 colors; custom colors available

| SPECIFICATIONS | |
|---|---|
| **For use on** | Nylon turf systems |
| **Coverage per gallon** | 250 - 350 ft. x 4 in. (varies by speed and substrate) |
| **Ideal air temperature at application** | 60° – 90° F |
| **Applied by** | Airless striper set between 500 - 1000 psi |
| **Recommended tip size** | .317 or .319 |
| **Dry time @ 60⁰ F** | Dry to touch in 1 hour. Completely dry in 48 - 72 hours* |
| **Removal** | Non-removable |

****High humidity and/or cool temperatures will result in longer dry times***
****See page 1 for colors***

## Titan® Extreme

- Glossy paint for nylon surfaces that mimics the feel of the turf itself
- Softer, more flexible paint that evenly coats the turf blades
- Designed for long-term applications and extreme durability

# 5 GAMELINE REMOVAL EQUIPMENT

"The P-REX remover and extractor allows for quick and efficient removal of logos and lines, without any wear and tear on the turf. The rubber infill displacement is minimal and I was very pleased at how little infill actually gets extracted. For a facility with no floor drains like us, this is the perfect piece of equipment. I wished we had gotten one sooner."

***Thomas McAfee***
***Alamodome***
***San Antonio, TX***

"It is much faster and better than any other machine we have used and well worth it. Logos that took us hours to remove are cleaned off in minutes and the field is ready to paint shortly after that."

***Chad Wilken***
***Mercedes-Benz Superdome***
***New Orleans, Louisiana***

# P-REX™

- An innovative design that turns synthetic turf paint removal into a one person job
- Saves man-hours by facilitating all three steps of the GameLine® removal process: applies remover solution, agitates, sprays with water and extracts
- A perfect tool for those with frequent field changeovers

**Vehicle:**

- Single 852 cc engine
- Can apply Blitz, agitate, rinse and extract simultaneously or in any combination
- 60" cleaning and extracting path
- Highly maneuverable, zero-turn platform that can operate forward and reverse while cleaning and extracting
- 9 ½ feet long
- All electric control systems

GameLine® and the P-REX are the choices of the Mercedes-Benz Superdome for quick field conversions between collegiate and professional games.

PAINT REMOVE PAINT AGAIN

# 6 GAMELINE REMOVAL EQUIPMENT

**Extraction System:**

- Custom designed extraction plate
- Maximizes paint extraction
- Minimizes infill extraction
- Dual intake manifold for increased vacuum lift
- High rise vacuum bar for easy transportation
- Easy drain system

**Brushes:**

- Custom brushes with a blend of natural and synthetic fibers
- Quick Release brushes for easy cleaning

**Water system:**

- Quick Release spray nozzles
- Wheel rinse to all four tires to elimi-nate tracking

Alternate Line-Remover Brush

**See more at: pioneerathletics.com/prex**

### Blitz™ GameLine® Remover Solution

- Easily and quickly remove temporary synthetic turf paint, logos or stencils
- Contains no harsh solvents
- Just apply, agitate with Blitz™ Remover Machine, then wash away with water
- Blitz™ GameLine Remover Solution is designed to work with GameLine® Removable Paint

### Blitz HT GameLine® Remover Soloution

- GameLine synthetic turf paint remover solution is designed for the hours when field temps are at their peak
- Helps remove temporary synthetic turf paint when field surace temperatures are at their peak--generally between 11 a.m. and 3 p.m.
- Just apply, agitate with Blitz Remover Machine, then wash away with water
- Blitz HT Remover Solution is designed to work with GameLine Removable Paint.

### Blitz™ Walk-Behind Remover Machine

- Easy-to-use brush engagement
- 5.5 HP Honda engine
- 7 Adjustable positions for height of brush
- 8” Pneumatic wheels
- Padded hand grip handle collapses for easy storage and transport

# 7 AIRLESS STRIPERS

## Airless Field Marking Machines

The newest advances in industry proven airless striping technology. Performance. Affordability.

### Brite Striper® 3500 SP

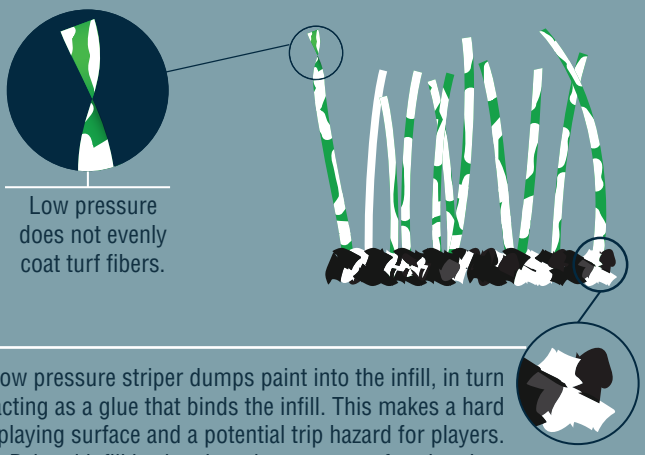
- Self-propelled, rear-gun mount airless striper
- Lightweight frame with smooth riding, large pneumatic tires
- Easy reach handle bar with mounted controls
- Adjustable electronic pressure control (0-3300 psi)
- Front swivel wheel–great for arcs and circles
- Premium-grade Briggs & Stratton Vanguard engine

### Brite Striper® 3000

- Sturdy and lightweight frame
- 50' hose provides phenomenal reach for logos and wide-area spraying
- Smooth ride thanks to large penumatic tires
- Adjustable handles and easy-access storage compartment
- Steady, adjustable pressure (0-3000psi)
- Honda GX160 engine

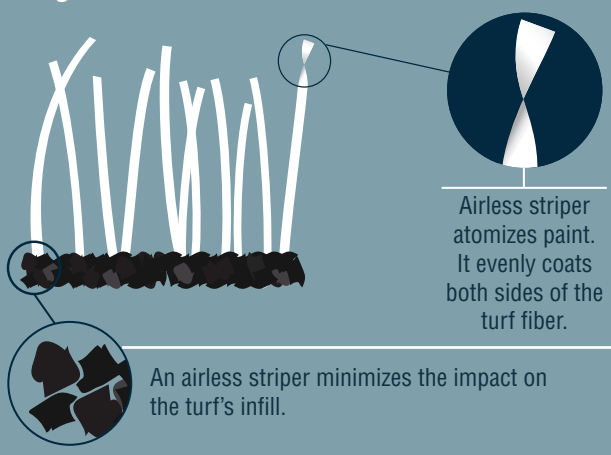
## Why use an airless striper when painting infilled synthetic turf?

Low Pressure ◀ VS ▶ High Pressure



Low pressure does not evenly coat turf fibers.

A low pressure striper dumps paint into the infill, in turn acting as a glue that binds the infill. This makes a hard playing surface and a potential trip hazard for players. Painted infill is also the primary reason for ghosting.



Airless striper atomizes paint. It evenly coats both sides of the turf fiber.

An airless striper minimizes the impact on the turf's infill.

**A friendly tip from:** Pioneer Athletics

### Tips when painting synthetic turf

- For best results, groom the field first to help the turf fibers stand tall.
- Paint with an airless machine at 900-1000 psi using a .317 or .319 tip
- Using less paint is better

## Field Crewzer™

Pioneer's Field Crewzer is the premier sweeper that removes litter and debris while returning infill back into the field.

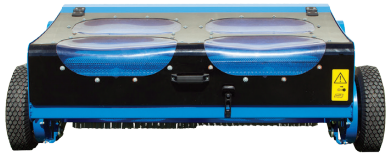
- A robust, counter-rotating brush lifts surface debris into a primary hopper
- Infill granules are returned to the surface while debris is shaken into one of two easily-removable hoppers at the rear of the machine
- Can be pulled by most golf carts and utility vehicles
- The Field Crewzer is lifted up by an electric actuator for transporting

| SPECIFICATIONS | |
|---|---|
| Dimensions L/W/H | 99.2" / 59" / 47.3" |
| Working width | 47.3" |
| Drive | Honda GX240 gasoline 5.4 kW / 7.2 HP |
| Transport width | 59" |
| Attachment (semi-mounted) | drawbar trailed |
| Container capacity | 100 L. |
| Back bogey tires | 11" x 7" |
| Front contact wheels | 11" x 7" |
| Air pressure | 2 bar |
| Weight | 970 lbs. |

## Crewzer™ Junior

- For the quick and efficient collection of surface debris such as leaves, paper, seeds, glass, plastic, and more
- Features a ground driven rotary brush that picks up surface debris
- A mechanical vibrating screen separates the debris from any crumb rubber that accumulates
- The crumb rubber is redistributed evenly back onto the field
- Debris is collected into an easily removable hopper
- An affordable solution for cleaning artificial turf fields with incredible results

| SPECIFICATIONS | |
|---|---|
| Length without attachment in approximate inches | 48 |
| Length with attachment in approximate inches | 91 |
| Working width in approximate inches | 48 |
| Height in approximate inches | 24 |
| Outside width in approximate inches | 65 |
| Ground drive | 2 wheels at 16" diameter each |



## GreensGroomer®

- The GreensGroomer is a synthetic sports turf groomer that works with all infill material.
- Patented brush design with super-duty brushes lifts turf fibers, leaving them in a plush, upright position
- Brush pattern increases efficiency and performance when brushing infill to low areas left after play
- Synthetic brushes resist wear and will not rot
- Optional Spring Tine Rake combs through infill, relieving compaction and assuring a soft, level playing surface
- Optional 6' tow-behind magnet available for collecting ferrous material hidden in the field and infill

| SPECIFICATIONS | |
|---|---|
| Main Frame | 2 in. square tube (11 gauge) with 1-1/2 in. (10 gauge) square tube cross bars |
| Draw Bar | One piece 2" square tube |
| Length | 64 in. (72 in. with rear brush attachment) 106 in. overall including the draw-bar |
| Width | 72 inches |
| Weight | 375 lbs. |
| Runing Gear | 2 pneumatic tires (16 x 650-8) Ribbed 2-ply with oil impregnated Grafoil bushings |
| Brushes | (16) Blue super duty synthetic brushes with flat bristles attached to polypropylene head 4-12"; 8-18", 4-41" |
| Tines | 3 rows of 14 tines, 3/16" diameter w/ 40° tip bend, 7/8" spacing |

## Integrated GreensGroomer®

- Same brush features as the standard unit
- Integrated unit comes with built-in tine rake that features a handle unit for tine adjustment
- Follow-up brush and magnet hitch kit included

## LitterKat®

- Ground driven sweeper designed to remove debris from the turf surface without displacing infill material
- 12-volt actuator for easy brush depth adjustments
- Dual 12-volt vibrators in the collection baskets allow any infill material that is collected to be quickly returned to the field
- All aluminum construction with a durable powder coat finish allows the LitterKat to be towed by most utility vehicles
- Equipped with a powerful 6' tow-behind magnet that pulls unwanted ferrous material from deep within the infill

| SPECIFICATIONS | |
|---|---|
| Frame Width | 73" All aluminum construction; 87" with wheels |
| Drive Mechanism | Direct drive gear with rigid gear guards |
| Draw Bar | 56" x 3" diameter aluminum with adjustable hitch |
| Length | 36 in. (72in. overall including the draw-bar) |
| Basket | 31"L x 35.5"W x 9"D perforated and removable |
| Wheels | 4 Bolt 4.80 x 12 pneumatic with bearings |
| Electric | (12v) Linear actuator for lifting baskets<br>(12v) Vibrators (1 per basket) |

# the Gawryla Grip

- Synthetic turf lining system
- Unlike nails or stakes, Gawryla Grips don't puncture or damage synthetic turf
- Firmly anchors string while painting lines
- Made of robust, high strength-to-weight ratio PVC
- Carefully designed by a sports turf manager
- Manufactured by Pioneer Athletics

"Our crew has been painting lines on all sorts of artificial turf for over 15 years now, it has always been frustrating to stretch strings for line painting on artificial turf. The Gawryla Grip has been a true breath of fresh air for line stretching. From the first time we used it everyone involved couldn't believe how simple it made attaching the line to the turf for painting. AWESOME PRODUCT!"

*Paul Curtis,*
*Groundskeeper, Beaver Stadium*
*Grounds Crew, Penn State*

"The easy grip handle makes stretching strings easy. Once it's stretched all you have to do is set the grip down, give it a small push and you're ready to paint"

*Mitch Tracey,*
*Sports Turf Manager, Campus Rec*
*Service University of Maryland*

## Clegg Hammer

- Used to identify poorly compacted areas on synthetic turf
- Designed to measure the hardness or shock absorption properties of a surface
- The impact of the hammer produces an electrical pulse, which is converted and displayed on the digital control unit
- May be transported and operated by one person
- Helps promote player safety

## Titan T.G.

- 5 gallon pail of highly dilutable, one-step disinfectant
- Kills harmful microbes that can cause disease on plastic surfaces
- EPA registered, neutral pH for player safety
- Also available in 55 gallon packaging

**TTG05**

## Synthetic Turf Repair Kit

- A two-component, 100% epoxy adhesive designed for high strength repairs of artificial turf
- Meets FIFA standards for bond and shear strength
- Kit contains 6 cartridges, 12 static mixers, 1 dual-cartridge assembly gun, 1 tool box

**STRK**

## Ultrabound® Turf 527

- A moisture-curing, one-component, polyurethane adhesive specifically designed for the repair of existing outdoor turf
- For interior and exterior applications, excellent weather resistance.
- Meets FIFA requirements for bond and shear in sports-turf applications.

**STRC**

## University of Pioneer

Pioneer is committed to developing new technologies and products to meet the increasing demands and challenges of synthetic turf fields. Pioneer has an on-site facility at the Cleveland headquarters that is continuously used to test and perfect products to keep up with the most current technology and demands from the industry.

## Are synthetic turf paints truly different from other paints?

Paints that are specifically designed for synthetic turf offer significant performance differences than traditional grass paints. Paints that are designed for synthetic turf are designed for either durability or removability. Long lasting synthetic turf paints are designed to provide maximum adhesion to synthetic grass blades as well as exceptional flexibility. Removable paints are chemically engineered so that the resin system releases from the turf blades when a remover solution is applied. Resins in true removable synthetic turf paint, like GameLine®, are durable but dissolve with the appropriate remover solution, like Blitz™- making removal effective. Many paints marketed as removable use resin systems that simply soften before "removal". This leads to infill binding and drainage systems clogging.

The remover solution that is recommended is a helpful way to determine whether the removable paint is specifically designed for synthetic turf or is a modification of an existing product. If the recommended remover solution is a general cleaner, then the paint is almost certainly not formulated specifically for synthetic turf. Pioneer's Blitz™ remover solution is designed to remove GameLine® quickly and easily.

## So how do you choose between longer-term paints and removable paints?

If you are unsure, choose a removable paint like GameLine®. There are many facilities that have installed synthetic turf fields certain that only one sport would be played on it. However, after installation, other sports quickly find reasons why playing on the new turf field is absolutely necessary.

## How do I paint a synthetic turf field?

First, make sure your field is cleaned and groomed and your striping equipment is in good working order. Carefully measure your field – preferably using a field layout kit. Spray the paint undiluted with a Brite Striper® 3500 SP airless sprayer. Spray between 900–1000 PSI using a new 317 airless tip. For detailed work, consider using a new 115 tip at 500–700 PSI.

Use as little paint as necessary to provide a good looking line. Rollers and brushes are not recommended as too much paint can be applied. Applying too much paint may make removing GameLine® more difficult. Too much paint can also make the painted areas harder than the rest of the field.

## How do I remove synthetic turf paint like GameLine®?

The ideal conditions for paint removal occur when the air temperature is between 50 and 90 degrees. Apply Blitz™ remover solution and wait 2-10 minutes – time varies by weather conditions and air temperature. Agitate with Blitz™ machine or deck brush. Rinse lightly with water. Repeat as necessary. For all-in-one removal, use Pioneer's P-REX removal and extraction machine.

**Check out our GameLine® Removable System video at www.pioneerathletics.com**

www.pioneerathletics.com
800.877.1500

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