



HERO TURF - PRODUCT SPECIFICATION

SECTION 321813 - SYNTHETIC GRASS SURFACING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Synthetic grass surfacing with integral foam backing.
2. Accessories required for a complete synthetic grass surfacing installation.

B. Related Requirements:

3. Section 312000 "Earth Moving" for preparation, compaction, and grading of aggregate base where applicable.
4. [Section 033000 "Cast-in-Place Concrete" for concrete substrates.]
5. [Insert other related Sections applicable to Project.]

1.2 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference

- at [Project site] [Insert location].
6. Review substrate conditions and requirements.
 7. Review manufacturer's installation requirements.
 8. Review layout, direction of turf, seams, terminations, and transitions
 9. Review environmental conditions required for installation.
 10. Review coordination with adjacent construction.

1.3 ACTION SUBMITTALS

A. Product Data:

1. Synthetic grass surfacing.
2. Manufacturer's published technical data.
3. Installation materials and accessories.

B. Shop Drawings: For synthetic grass surfacing.

1. Include plans, sections, and details.
2. Show turf layout and orientation.
3. Show locations of seams and method of seaming.
4. Show perimeter terminations and transitions to adjacent materials.

C. Samples:

1. Turf Fabric: Minimum 12 inches (304 mm) square.
2. Submit sample showing face fiber and integral foam backing.
3. Submit manufacturer's standard color selection where required.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

B. Product Test Reports: Submit manufacturer's published test data demonstrating compliance with specified physical properties.

C. Manufacturer's installation instructions.

D. Sample Warranty: Submit manufacturer's standard warranty.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: Submit manufacturer's recommended maintenance and cleaning instructions for inclusion in maintenance manuals.

B. Warranty Documentation: Submit executed manufacturer's warranty.

1.6 QUALITY ASSURANCE

A. Installer Qualifications: Entity experienced in installation of synthetic grass surfacing systems of type specified and acceptable to manufacturer.

B. Manufacturer: Manufacturer regularly engaged in production of synthetic turf products of type specified.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials in manufacturer's original packaging or rolls with identification intact.

B. Store synthetic grass surfacing in accordance with manufacturer's written recommendations.

C. Protect materials from damage, contamination, excessive moisture, and conditions detrimental to installation or performance.

D. Handle rolls in a manner that prevents damage to turf fibers, primary backing, and integral foam coating.



1.8 FIELD CONDITIONS

- A. Verify substrate and environmental conditions are suitable for installation in accordance with manufacturer's written requirements.
- B. Do not install synthetic grass surfacing over wet, contaminated, unstable, or otherwise unacceptable substrates.

1.9 WARRANTY

- A. Manufacturer's Warranty: Manufacturer's standard written warranty covering synthetic grass surfacing against defects in materials.
 - 1. Warranty Period: 8 years.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Basis-of-Design Manufacturer: Synthetic Turf Resources (STR).
- B. Basis-of-Design Product: AGILIMAX48-T5, SKU TXT48 T5.
- C. Substitutions: [Not permitted.] [Comply with Division 01 requirements for substitutions.]

2.2 SOURCE LIMITATIONS

- A. Obtain synthetic grass surfacing from a single manufacturer.
- B. Provide installation accessories that are supplied, recommended, or approved by synthetic grass surfacing manufacturer and compatible with the specified turf system.

2.3 PERFORMANCE REQUIREMENTS

- A. Synthetic Grass Surfacing: Provide manufacturer's standard AGILIMAX48-T5 synthetic turf complying with the following minimum physical properties:
 - 1. Pile Height: 3/4 inch (19 mm), nominal, tested in accordance with ASTM D5823.
 - 2. Face Weight: 48 oz./sq. yd. (1627 g/sq. m), tested in accordance with ASTM D5848.
 - 3. Total Fabric Weight: 120 oz./sq. yd. (4069 g/sq.m), tested in accordance with ASTM D5848.
 - 4. Primary Backing Weight: 6 oz./sq. yd. (203 g/sq. m), tested in accordance with ASTM D5848.
 - 5. Secondary Coating Weight: 66 oz./sq. yd. (2238 g/sq. m), tested in accordance with ASTM D5848.
 - 6. Tuft Bind: Greater than 8 lbf (35.6 N), tested in accordance with ASTM D1335.
 - 7. Grab Tear Strength, Average: Greater than 200 lbf (890 N), tested in accordance with ASTM D5034.
 - 8. Lead Content: Less than 50 ppm, tested in accordance with ASTM F2765.
 - 9. Total Yarn Linear Density: 5,400 denier, tested in accordance with ASTM D1577.
 - 10. Elongation at Break: Greater than 60 percent, tested in accordance with ASTM D2256.

- 11. Yarn Breaking Strength: Greater than 19 lbf (84.5 N), tested in accordance with ASTM D2256.
- 12. Yarn Melting Point: 248 degrees F (120 degrees C), tested in accordance with ASTM D7138.
- 13. Machine Gauge: 3/16 inch (4.8 mm), tested in accordance with ASTM D5793.
- 14. Flammability: Pass ASTM D2859.
- 15. Fabric Width: 15 feet (4.57 m).

- B. Manufacturer's published nominal specification values are subject to a tolerance of plus or minus 5 percent unless otherwise indicated.

2.4 SYNTHETIC GRASS SURFACING

- A. Synthetic Grass Surfacing: Tufted synthetic turf fabric incorporating polyethylene monofilament face yarn, dual-layer polypropylene primary backing, and integral foam coating.
 - 1. Manufacturer: Synthetic Turf Resources (STR).
 - 2. Product: AGILIMAX48-T5.
 - 3. SKU: TXT48 T5.
 - 4. Primary Yarn Polymer: Polyethylene.
 - 5. Yarn Construction: Monofilament.
 - 6. Yarn Cross Section: Diamond.
 - 7. Polyethylene Yarn Denier/Ends: 5,400/8.
 - 8. Standard Color: Meadow Green/Colors.
 - 9. UV Stabilized: Yes.
 - 10. Fabric Construction: Tufted.
 - 11. Primary Backing: Dual polypropylene layers.
 - 12. Coating: 5 mm foam, T5.
 - 13. Secondary Thatch Yarn: None.
 - 14. Sustainability: Recyclable.
 - 15. Nominal Pile Height: 3/4 inch (19 mm).
 - 16. Nominal Face Weight: 48 oz./sq. yd. (1627 g/sq. m).
 - 17. Nominal Total Fabric Weight: 120 oz./sq. yd. (4069 g/sq. m).



2.5 ACCESSORIES

- A. Seam Adhesive: Manufacturer's recommended or approved adhesive compatible with synthetic turf backing, substrate, seam tape, and ambient conditions at time of installation.
- B. Seam Tape: Synthetic grass surfacing manufacturer's recommended seam tape, where required by installation method.
- C. Perimeter Attachment Materials: Manufacturer's recommended materials appropriate for substrate and installation conditions.
- D. Transition Materials: Provide manufacturer's recommended transition and termination components where synthetic grass surfacing abuts other finish materials.
- E. Other Accessories: Provide materials recommended by manufacturer as necessary for a complete installation.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Installer present, for compliance with requirements affecting installation and performance of synthetic grass surfacing.
- B. Verify substrate is properly prepared, clean, stable, and suitable to receive synthetic grass surfacing.
- C. Verify elevations and transitions to adjacent surfaces are suitable for finished turf system thickness.
- D. Verify substrate is free of debris, contaminants, projections, depressions, and other conditions that could telegraph through or damage finished surfacing.
- E. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Prepare substrate in accordance with synthetic grass surfacing manufacturer's written instructions.
- B. Remove loose material, debris, contaminants, and substances that could interfere with installation or adhesion.
- C. Coordinate preparation with requirements for perimeter attachment, seams, transitions, and adjacent construction.

3.3 INSTALLATION OF SYNTHETIC GRASS SURFACING

- A. Install synthetic grass surfacing in accordance with manufacturer's written recommendations and approved Shop Drawings.
- B. Lay out turf to minimize seams and provide consistent orientation of face fibers unless otherwise indicated.
- C. Roll out turf and allow material to relax before final fitting, cutting, and seaming in accordance with manufacturer's recommendations.

- D. Accurately cut turf to fit perimeter conditions, penetrations, transitions, and adjacent construction.
- E. Provide seams flat, tight, and secure, without gaps, wrinkles, raised edges, or visible irregularities.
- F. Align adjacent sections to maintain consistent pile direction and appearance.
- G. Secure seams using manufacturer's recommended seaming materials and methods.
- H. Secure synthetic turf at perimeters and transitions using manufacturer's recommended attachment system appropriate for substrate conditions.
- I. Do not damage integral 5 mm T5 foam coating during handling, cutting, seaming, or installation.
- J. Remove trapped or distorted face fibers from seams and restore fibers to a uniform finished appearance.
- K. Completed installation shall be smooth, secure, and free of wrinkles, bubbles, loose seams, exposed backing, and other visible defects.

3.4 FIELD QUALITY CONTROL

- A. Inspect completed installation for:
 - 1. Secure seams and perimeter terminations.
 - 2. Uniform turf orientation.
 - 3. Consistent finished appearance.
 - 4. Proper transitions to adjacent surfaces.
 - 5. Absence of wrinkles, bubbles, loose areas, exposed backing, and damaged fibers.
- B. Remove and replace damaged or improperly installed materials that cannot be satisfactorily repaired.
- D. Accurately cut turf to fit perimeter conditions, penetrations, transitions, and adjacent construction.
- E. Provide seams flat, tight, and secure, without gaps, wrinkles, raised edges, or visible irregularities.
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- B. Remove and replace damaged or improperly installed materials that cannot be satisfactorily repaired.

3.5 CLEANING AND PROTECTION

- A. Remove installation debris and excess materials from synthetic grass surfacing.
- B. Clean finished surface in accordance with manufacturer's written recommendations.
- C. Protect completed synthetic grass surfacing from damage and contamination during remaining construction operations.
- D. Repair or replace damaged synthetic grass surfacing before Substantial Completion.

3.6 DEMONSTRATION

- A. Provide Owner's maintenance personnel with manufacturer's recommended procedures for cleaning, care, and maintenance of synthetic grass surfacing.

END OF SECTION 321813