

SECTION 05 55 00

STAIR TREADS AND NOSINGS

PART 1 GENERAL

1.1 SUMMARY

- A. Provide the following products for stairs:
 - 1. Stair nosings.
 - 2. Stair nosings with photo-luminescent pigment.
 - 3. Renovation treads.
 - 4. Renovation treads with photo-luminescent pigment.
 - 5. Anti-slip coatings for stairs and ramps.

1.2 RELATED WORK

- A. Examine Contract Documents for requirements that affect work of this Section. Other Specification Sections that relate directly to work of this Section include, but are not limited to:
 - 1. Section 03 30 00, Cast-In-Place Concrete.
 - 2. Section 03 40 00, Architectural Precast Concrete.
 - 3. Section 05 51 00, Metal Stairs.

1.3 SUBMITTALS

- A. Product Data: Submit manufacturer's product data, installation instructions, and recommendations for each product specified.
- B. Shop Drawings: Provide shop drawings indicating details of construction and installation.

1.4 QUALITY ASSURANCE

- A. Slip Resistance: Provide units which comply with ADA, OSHA and local building codes and insurance requirements.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Deliver, store and handle materials and products in strict compliance with manufacturer's instructions and recommendations and industry standards. Protect from damage.

1.6 SEQUENCING AND SCHEDULING

- A. Conference: Convene a pre-installation conference to establish procedures to maintain optimum working conditions and to coordinate this work with related and adjacent work.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Acceptable Manufacturer: Amstep Products, 190 Century Drive, Bristol, CT 06010, Phone: 860-589-9085; Fax: 860-589-9081; Toll Free: 800-457-0869; sales@amstep.com; www.amstep.com.
- B. Stair Nosings: 100 Series by Amstep Products consisting of an homogenous epoxy abrasive formulation formed and cured on an extruded aluminum base, alloy 6063-T6. Coefficient of friction 0.99 dry, 0.93 wet per ASTM F 609. Provide the following:
 - 1. For Poured or Precast Concrete and Terrazzo Stairs: Tread 3/8 inches thick, lip 1/4 from underside, length 6 inches less than overall length of poured step.
 - a. Amstep Model DSA2, 2 inches wide.
 - b. Amstep Model DSA3, 3 inches wide.
 - c. Amstep Model DSA4, 4 inches wide.
 - 2. For Steel Pan Cement Filled Stairs: Tread 3/8 inches thick, flush nose, length 1/8 inch less than overall length of step stringer to stringer; maximum pan return dimension 1 inch.
 - a. Amstep Model BF2, 2 inches wide.
 - b. Amstep Model BF3, 3 inches wide.
 - c. Amstep Model BF4, 4 inches wide.
 - 3. Abrasive Filler Color: As selected from manufacturer's standard and custom colors.
- C. Stair Nosings: 200 Series by Amstep Products consisting of an abrasive filler bonded and locked into channels in an extruded aluminum base, alloy 6063-T6. Coefficient of friction 1.02 dry, 0.98 wet per ASTM F 609. Provide the following:
 - 1. For Poured or Precast Concrete and Terrazzo Stairs: Tread 1/4 inch thick with continuous arrow-profile anchor 3/4 inches deep; lip 1/4 inch from underside.
 - a. Amstep Model 210A, 1-3/8 inches wide.
 - b. Amstep Model 231A, 3 inches wide.
 - c. Amstep Model 241A, 4 inches wide.
 - 2. For Poured or Precast Concrete and Terrazzo Stairs: Tread 1/4 inch thick without anchor; lip 1/4 inch from underside.
 - a. Amstep Model 121A, 1-7/8 inches wide.

- b. Amstep Model 131A, 3 inches wide.
 - c. Amstep Model 610A, 1-3/8 inches wide.
 3. For Steel Pan Cement Filled Stairs: Tread 1/4 inch thick with continuous arrow-profile anchor 3/4 inches deep; lip design to provide close fit on pan.
 - a. Amstep Model 231AP, 3 inches wide.
 - b. Amstep Model 232A, 3 inches wide, lip 1-1/8 inch from underside.
 - c. Amstep Model 238A, 3 inches wide for sloped pan riser.
 - d. Amstep Model 241AP, 4 inches wide.
 4. Abrasive Filler Color: As selected from manufacturer's standard and custom colors.
- D. Stair Nosings with Photo-Luminescent Coating: VisiGlow by Amstep Products consisting of an abrasive filler bonded and locked into channels in an extruded aluminum base, alloy 6063-T6. Non-radioactive, photo-luminescent pigment mixed with abrasive material on the two leading strips of each stair nosing. VisiGlow afterglow brightness minimum of 2.4 after 120 minutes per DIN 67510. Coefficient of friction 1.02 dry, 0.98 wet per ASTM F 609. Provide the following:
 1. For Poured or Precast Concrete and Terrazzo Stairs: Tread 1/4 inch thick with continuous arrow-profile anchor 3/4 inches deep; lip 1/4 inch from underside.
 - a. Amstep Model 121A with VisiGlow, 1-7/8 inches wide.
 - b. Amstep Model 131A with VisiGlow, 3 inches wide.
 - c. Amstep Model 210A with VisiGlow, 1-3/8 inches wide.
 - d. Amstep Model 231A with VisiGlow, 3 inches wide.
 - e. Amstep Model 241A with VisiGlow, 4 inches wide.
 - f. Amstep Model 610A with VisiGlow, 1-3/8 inches wide.
 2. For Steel Pan Cement Filled Stairs: Tread 1/4 inch thick with continuous arrow-profile anchor 3/4 inches deep; lip design to provide close fit on pan.
 - a. Amstep Model 231AP with VisiGlow, 3 inches wide.
 - b. Amstep Model 232A with VisiGlow, 3 inches wide, lip 1-1/8 inch from underside.
 - c. Amstep Model 238A with VisiGlow, 3 inches wide for sloped pan riser.
 - d. Amstep Model 241AP with VisiGlow, 4 inches wide.
 3. For Wood Stairs: Tread 1/4 inch thick.
 4. Abrasive Filler Color in Addition to VisiGlow Strips: As selected from manufacturer's standard and custom colors.
- E. Renovation Treads: 500 Series by Amstep Products consisting of an abrasive filler bonded and locked into channels in an extruded aluminum base, alloy 6063-T6. Coefficient of friction 1.02 dry, 0.98 wet per ASTM F 609. Provide the following:
 1. For Existing Stairs: Tread 9/32 inch thick with lip 1-1/8 inch from underside, no-trip bevels at back edge; holes drilled and countersunk.
 - a. Amstep Model 509A, 9 inches wide, 90 degree return angle.
 - b. Amstep Model 509ASR, 9 inches wide, 83 degree return angle.

- c. Amstep Model 511A, 11 inches wide, 90 degree return angle.
 - d. Amstep Model 511ASR, 11 inches wide, 83 degree return angle.
 - e. Amstep Model 508A, 8 inches wide, 90 degree return angle (flat back without bevel).
 - f. Amstep Model 510A, 10 inches wide flat strip (flat back without bevel).
 - g. Amstep Model 504A, 4 inch wide flat strip with bevel at back edge.
2. Abrasive Filler Color: As selected from manufacturer's standard and custom colors.
- F. Renovation Treads: 700 Series by Amstep Products consisting of a high-performance polymer cast and cured on extruded aluminum base, alloy 6063-T6. Treads shall pass ASTM D 2444 without cracking or delaminating, comply with Federal Standard 141, and be capable of immersion in saline water, oil, fuels, detergents without softening. Coefficient of friction 1.04 dry, 1.00 wet per ASTM F 609. Provide the following:
1. For Existing Stairs: Tread 5/16 inch thick with lip 1-1/4 inch from underside, no-trip bevels at back edge; holes drilled and countersunk.
 - a. Amstep Model 709H, 9 inches wide, 90 degree return angle.
 - b. Amstep Model 709ASR, 9 inches wide, 83 degree return angle.
 - c. Amstep Model 711H, 11 inches wide, 90 degree return angle.
 - d. Amstep Model 711ASR, 11 inches wide, 83 degree return angle.
 - e. Amstep Model 710H, 10 inches wide, 90 degree return angle (flat back without bevel).
 - f. Amstep Model 707H, 7 inches wide flat strip (flat back without bevel).
 - g. Amstep Model 708H, 8 inch wide flat strip with bevel at back edge.
 - h. Amstep Model 704H, 4 inch wide flat strip with bevel at back edge.
 2. Abrasive Filler Color: As selected from manufacturer's standard and custom colors.
- G. Renovation Treads: 300 Series RetroNose by Amstep Products consisting of abrasive material bonded to a heavy-duty aluminum base. Coefficient of friction 1.02 dry, 0.98 wet per ASTM F 609. Provide the following:
1. For Existing Stairs: Tread 1/4 inch thick with lip 1/4 inch from underside, no-trip bevels at back edge; each secured by a minimum of 3 stainless steel flat head bolts to a depth of 3/4 inches.
 - a. Amstep Model 331A, 3 inches wide.
 - b. Amstep Model 341A, 4 inches wide.
 - c. Amstep Model 351A, 5 inches wide.
 2. Color: As selected from manufacturer's standard and custom colors.
- H. Renovation Treads with Photo-luminescent Pigment: Glowline by Amstep Products consisting of an abrasive filler bonded and locked into channels in an extruded aluminum base, alloy 6063-T6. Coefficient of friction 1.02 dry, 0.98 wet per ASTM F 609. Provide the following:
1. For Existing Stairs: Tread 9/32 inch thick with lip 1-1/8 inch from

- underside, no-trip bevels at back edge; holes drilled and countersunk.
2. Color: Black with a green phosphorescent front edge.
- I. Anti-Slip Coatings for Stairs and Ramps: High-performance field applied coatings by Amstep Products with the following characteristics:
 1. Amstep HG-75 Anti-Slip Coating, Pedestrian Traffic: Low-VOC, single-component elastomeric acrylic polymer. Coefficient of friction 1.3 dry, 0.9 wet per ASTM F 609.
 - a. Color: Gray.
 - b. Color: Black.
 - c. Color: Tile red.
 - d. Color: Safety yellow.
 2. Amstep HG-100 Anti-Slip Coating, Heavy Pedestrian and Light Rolling Traffic: Low-VOC, single-component epoxy. Coefficient of friction 1.17 dry, 1.0 wet per ASTM F 609.
 - a. Color: Gray.
 - b. Color: Black.
 - c. Color: Tile red.
 - d. Color: Safety yellow.
 3. Amstep HG-7175 Anti-Slip Coating, Wet Areas: Low-VOC, two-component waterborne epoxy with moderate grit. Coefficient of friction 0.78 dry, 0.86 wet per ASTM F 609.
 - a. Color: Beige.
 - b. Color: Light gray.
 - c. Color: Gray.
 - d. Color: Black.
 - e. Color: Tile red.
 - f. Color: Safety yellow.
 4. Amstep HG-250 Anti-Slip Coating, Heavy Vehicular Traffic: Two-component epoxy. Coefficient of friction 1.05 dry, 1.05 wet per ASTM F 609.
 - a. Color: Gray.
 - b. Color: Black.
 - c. Color: Tile red.
 - d. Color: Safety yellow.
 5. Amstep HG-500 Anti-Slip Coating, Extra Heavy-Duty, Chemical Resistant: Low-VOC, two-component high-solids epoxy. Coefficient of friction 0.88 dry, 0.93 wet per ASTM F 609.
 - a. Color: Gray.
 - b. Color: Black.
 - c. Color: Tile red.
 - d. Color: Safety yellow.
 6. Amstep HG-2500 Anti-Slip Coating, Extra Heavy-Duty, Chemical Resistant: Zero-VOC, two-component 100 percent solids epoxy. Coefficient of friction 1.10 dry, 1.00 wet per ASTM F 609.
 - a. Color: Gray.
 - b. Color: Black.

- c. Color: Tile red.
- d. Color: Safety yellow.

PART 3 - EXECUTION

3.1 INSPECTION

- A. Installer shall examine substrates, supports, and conditions under which this work is to be performed and notify Contractor, in writing, of conditions detrimental to the proper completion of the work. Do not proceed with work until unsatisfactory conditions are corrected. Beginning work means Installer accepts substrates and conditions.

3.2 INSTALLATION

- A. Strictly comply with manufacturer's instructions and recommendations and approved details. Securely anchor work to substrate.
- B. Repair minor damage to eliminate all evidence of repair. Remove and replace work which cannot be satisfactorily repaired.

END OF SECTION