



## SECTION 32 14 00

### UNIT PAVING

#### **Rubbersidewalks™ Recycled Tire Rubber Interlocking Modular Paving System**

#### **PART 1 GENERAL**

##### SECTION INCLUDES

**Rubbersidewalks™** Recycled Tire Rubber Interlocking Modular Paving System

##### 1.2 RELATED SECTIONS

- A. Section 03 30 00 - Cast-in-Place Concrete.
- B. Section 31 00 00 – Earthwork.
- C. Section 31 05 19 – Geotextiles.
- D. Section 32 11 00 - Bases Courses.
- E. Section 32 11 16 – Sub base Courses.

##### 1.3 REFERENCES

- A. ADAAG – Americans with Disabilities Act (ADA) Accessibility Guidelines; US Architectural and Transportation Barriers Compliance Board.
- B. ASTM B117: Standard Test Method for Salt Spray.
- C. ASTM C1026: Standard Test Method for Resistance of Freeze – Thaw Cycling.
- D. ASTM C1028: Standard Test Method for Determining the Static Coefficient of Friction.
- E. ASTM D3884: Standard Guide for Abrasion Resistance
- F. ASTM D6944: Standard Test Method for Impact Resistance to Thermal Cycling.
- G. ASTM E162: Standard Test Method for Surface Flammability.
- H. ASTM F355: Shock Absorbing Properties of Play Surfaces.

##### 1.4 SUBMITTALS

- A. Submit under provisions of Section 01 30 00.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
  - 1. Preparation instructions and recommendations.
  - 2. Storage and handling requirements and recommendations.
  - 3. Installation methods.
- C. Selection Samples: For each finish product specified, one set of samples representing manufacturer's range of available product.
- D. Certificate of Compliance: Submit manufacturer's certificate of compliance indicating materials comply with specified requirements.



E. Manufacturer's Project References:

1. Submit list of successfully completed projects.
2. Include project name and location, name of customer official, or engineer, landscape architect, architect, etc. and type and quantity of surfacing furnished.

F. Installer's Project References:

1. Submit list of successfully completed projects.
2. Include project name and location, customer official, or engineer, landscape architect, etc., and type and quantity of surfacing installed.

G. Maintenance Instructions: Submit manufacturer's maintenance and cleaning instructions.

H. Warranty: Submit manufacturer's standard warranty.

## 1.5 QUALITY ASSURANCE

A. Manufacturer's Qualifications:

1. Continuously engaged in manufacturing of surfacing products of similar type to that specified, with a minimum of 5 years successful experience.

B. Installer's Qualifications:

1. Successful experience in installation of interlocking modular pavement, with a minimum of 15 projects completed within last 5 years.
2. Employ persons trained for installation of surfacing interlocking modular products. (ICPI accredited preferred.)
3. Approved by manufacturer. (Nonqualified installers may be considered if they attend training session. Cost of training to be assumed by installer.)

## 1.6 DELIVERY, STORAGE, AND HANDLING

A. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.

B. Storage:

1. Store materials in accordance with manufacturer's instructions.
2. Cover panels with plastic or use other packaging materials to prevent rust marks from steel strapping.

C. Handling: Protect materials during handling and installation to prevent damage.

## 1.7 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.



## 1.8 WARRANTY

- A. Materials and Workmanship: Rubbersidewalks™ shall be warranted for defects in materials and workmanship for five (5) years.

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: TERRECON, Inc. which is located at: 10061 Talbert Ave. #200, Fountain Valley, CA 92708; Tel: 714-064-1400; Fax: 714-964-8600; Email: [Info@TERRECON.com](mailto:Info@TERRECON.com) Web: [www.TERRECON.COM](http://www.TERRECON.COM)
- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00.

### 2.2 MODULAR INTERCONNECTED PAVER TILES

- A. Product: RUBBERSIDEWALKS™ are modular interconnected paving tiles.
  - 1. Material: 100% recycled tire crumbed rubber, polyurethane binder and colorant, molded under compression.
  - 2. Size: 2' x 2.5' x 1.875". Pre-drilled dowel holes, two per side. Design allows installation of minimum 4' wide sidewalks.
  - 3. Weight: 10.54 pounds per square foot (54 lbs. per paving tile).
  - 4. Color:
    - a. Gray
    - b. Terra Cotta (brownish-red)
    - c. As selected by Architect.
  - 5. Under-base: Flat, solid black color
- B. Material Characteristics:
  - 1. Hardness: Shore A 72.
  - 2. Shock Attenuation: ASTM F355: Shock Absorbing Properties of Play Surfaces. G-max average: 187. Fall significantly less likely than on concrete to cause injury or broken bones. Product is not designed for playground use and is not a playground material.
  - 3. Coefficient of Friction: ASTM C 1028: Dry=0.90; Wet=0.65 (OSHA guidelines require that all walking surfaces satisfy a 0.5 Static Coefficient of Friction rating. In new construction and alterations, ADA specifies that all walkways be stable, firm and slip resistant.)
  - 4. Taber-Abrasion: ASTM C 501: 270
  - 5. Weight Load: 3000 pounds per square inch
  - 6. Salt/Chloride & Magnesium Chloride Exposure: ASTM B117: Product exposed for 24 hours. No change in surface; no stain or residue.
  - 7. Xenon Arc Weathering: 200 hours UV testing. Lighting equivalent to outdoor daylight conditions and temperatures not exceeding 140 degrees Fahrenheit. No change after exposure to sunlight two-year equivalent.
  - 8. Flame Spread: ASTM E 162: Index 131.18 at average temperature of 157.7 C (Surface flammability ANSI Z124.1 and Z124.1 allows Index of 450 or less). If exposed to open, constant fire, pavers are likely to smolder. Lit cigarettes, cigars or matches can burn on paver until they self-extinguish.
  - 9. Porosity: ASTM F 1551: 2.2"/hr. Permeable at module seams. Immediate water drainage



into ground.

10. Freeze-Thaw: ASTM C 1026: Product exposed to 15 cycles of freeze-thaw at 0 Degrees for 90 days. No change. No facial defects. No signs of crazing, chipping, spalling or cracking. Product frozen at 0° was subjected to impact with no change.
11. Thermal Expansion. Less than 2% thermal expansion/contraction when subjected to laboratory testing temperature ranges from -5° to 165°.
12. LEED Credit: Qualifies for possible 4 LEED credits for recycled content, storm water drainage and heat island effect, innovation of design, and regional materials.
13. Sound: RUBBERSIDEWALKS™ reduces sound of pedestrian or wheeled traffic.
14. ADA Compliance: Low vibration; concrete-to-RUBBERSIDEWALKS™ transition non-affective; high coefficient of friction both dry and wet; Shore A hardness supports all pedestrian and wheeled traffic, and transition on and off concrete or other hardscape. Product designed for 4 foot minimum width.
15. Modularity: RUBBERSIDEWALKS™ is a modular system. Pavers are interconnected with patented design and can be opened by professional contractors for tree root maintenance, utilities access, seismic adjustment, relocation, etc.
16. Other: Non-toxic. All components inert solids. No volatile organic compounds. No wet latex content.

- C. Subbase:\*\* NOTE TO SPECIFIER \*\* Proper sub-base & base materials, and compaction are key. Except for Class 2 Permeable Base (which includes angular fines), no fines should be used as they can wash way over time. Rubbersidewalks™ is permeable and should have good drainage in all materials. Please consult TERRECON, Inc. about regional soil properties and available local materials prior to installation.

1. ¾" crushed angular rock & ½" crushed aggregate (angular cut)
1. Class 2 Permeable base (with angular fines).
2. Permeable woven geotextile (Mirafi 500X or equivalent)

- D. Accessories provided by product manufacturer:

1. Permaloc Spiral Steel Spikes
2. Permaloc Brick-Block Paver Restraints
3. Recycled plastic Eco-Border 3" dowels

## **PART 3 EXECUTION**

### **3.1 EXAMINATION**

- A. Do not begin installation until substrates have been properly laid and compacted according to manufacturer's instructions, and inspected by an authority approved by customer.
- B. If substrate preparation is the responsibility of another installer, do not begin installation until substrates have been properly laid and compacted according to manufacturer's instructions, and inspected by an authority approved by customer.
- C. Consulting arborist recommended for tree root inspection. Roots can be left intact up to 1.875" from grade (flush to base of paver) and any tree root trimming should be approved and supervised by a consulting arborist

### **3.2 PREPARATION**

- A. Prepare surfaces in accordance with manufacturer's instructions and protocol.



### 3.3 INSTALLATION

- A. Install paving system in accordance with manufacturer's instructions at locations indicated on the Drawings.

### 3.4 CLEANING

- A. Clean surface in accordance with manufacturer's instructions.

**END OF SECTION**

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