



INFINITY MAX™ TILE SPECIFICATION

Physical Specification: INFINITY MAX™ configurations consist of an interlocking, dual durometer flooring system consisting of a high density wear layer surface permanently molded to an underlayment incorporating 64 pedestals per tile to maximize shock absorbency and traction underfoot in wet and dry conditions as well as an omni-directional locking design to promote ease of installation.

Component Specification: INFINITY MAX™ is a factory molded modular surfacing system composed of high quality TPV (ThermoPlastic Vulcanisate) rubber granules bound in both underlayment and wear surface with a wear and weather resistant polyurethane. Rubber granules in both wear surface and underlayment are specially blended to enhance tile strength, durability and energy absorption characteristics.

Tile Construction: INFINITY MAX™

1. Evenly distributes fitness equipment weight over 64 pedestals per tile
2. Omni-Directional Locking Design: Locks the system firmly in place without adhesive
3. Wear Layer: High compression wear layer
Type: Virgin TPV rubber granules.

INFINITY MAX™ TILE SPECIFICATION

Product Data		
Dimensions (78° F.):		1.25" x 23.75" x 23.75" ± 1/8"
Wear Surface Density		90 lb./ft ³ min.
Coefficient of Thermal Expansion		1.1 x 10 ⁻³ in/ft/°F
Weight		21.5 lbs./tile or 5.3 lb./ft ²
Physical Data Test		
Tensile Strength	ASTM D412	107 lb/in ² min
Elongation at Break	D412	165% minimum
Compression Deflection	D1667	29.5 lb/in ² to 25% Compression
Compression Set	D395	4.37% Permanent Set
Impact Insulation Class	E49	> 50
Tear Resistance	D624	33.1 lb./in ² min.
Slip Resistance	E303	Dry: 102, Wet: 62
Coefficient of Friction	D2047	Dry: 0.81, Wet: 0.82
Noise Reduction Coefficient	C423	0.10 sabine/ft ²
Rubber Deterioration / Air Oven	573	No Deterioration
Critical Radiant Flux	E648	Class II - .34
Flammability (Burning Pill Test)	D2859	Passed



SECTION 02790

ATHLETIC AND RECREATIONAL SURFACING

1.1 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: Manufacturer shall meet at least one of the following requirements.
 - 1. Continuously engaged in manufacturing of surfacing products of similar type to that specified, with a minimum of 10 years successful experience.
 - 2. Furnished a minimum of 1,000,000 square feet per year of surfacing products of similar type to that specified.
- B. Installer's Qualifications:
 - 1. Successful experience in installation of surfacing of similar type to that specified, with a minimum of 25 projects completed within last 5 years.
 - 2. Employ persons trained for installation of surfacing products.
 - 3. Must be installed by the Manufacturer's own installation crew or Manufacturer Approved Installer.

1.2 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. Store materials in a dry storage area at a minimum temperature of 50 degrees F (10 degrees C) for a minimum of 48 hours before installation.
 - 3. Store materials to be installed indoors at the ambient temperature of the installation location for a minimum of 48 hours before installation.
 - 4. Protect materials from direct sunlight before installation.
 - 5. Store adhesive in a dry area at a minimum temperature of 50 degrees F
- C. Handling: Protect materials during handling and installation to prevent damage.
- D. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

1.3 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. Material Temperature: Ensure surface temperature of surfacing tiles is a minimum of 50 degrees F (10 degrees C) at time of installation.
 - 2. Air Temperature for Interior Installations: Ensure air temperature is at the same temperature as anticipated during normal operation.
 - 3. Air Temperature for Exterior Installations: Ensure air temperature is a minimum of 40 degrees F (4 degrees C) and a maximum of 90 degrees F (32 degrees C) for a minimum of 24 hours before and during installation.



1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- 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, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
- D. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.
- E. Certificate of Compliance: Submit manufacturer's certificate of compliance indicating materials comply with specified requirements.
- F. Manufacturer's Project References:
 - 1. Submit list of successfully completed projects.
 - 2. Include project name and location, name of architect, and type and quantity of surfacing furnished.
- G. Installer's Project References:
 - 1. Submit list of successfully completed projects.
 - 2. Include project name and location, name of architect, and type and quantity of surfacing installed.
- H. Maintenance Instructions: Submit manufacturer's maintenance and cleaning instructions.
- I. Warranty: Submit manufacturer's standard warranty.

1.5 WARRANTY

INFINITY MAX™ is warranted for a period of 10 (ten) years against premature deterioration, manufacturer's defects as well as any damage whatsoever to the INFINITY MAX™ material due to dropping free weights directly on the INFINITY MAX™.

The warranty issued for this project must have the following statement included in the material warranty: "Seller warrants that any damage to the INFINITY MAX™ material due to dropping free weights on the INFINITY MAX™ will be covered under this warranty for a period of ten (10) years."



PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: **Infinity Performance Inc.**, which is located at: 6735 N. Meridian St., Indianapolis, IN 46260. Email: info@infinityperformance.com; Web: www.InfinityPerformance.com
- B. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 FITNESS FLOORING

- A. INFINITY MAX™ as manufactured for Infinity Performance Inc.
 - 1. Manufactured with a TPV rubber granule on the wear layer to provide a speckled appearance. Any combination of colors can be used to create a speckled appearance.
 - 2. Blend: 90 percent color, 10 percent black.
- B. Tile Construction:
 - 1. Evenly distributes fitness equipment weight over 64 pedestals per tile.
 - 2. Omni-Directional Locking Design: Locks the system firmly in place with or without the use of adhesive.
 - 3. Wear Layer: High compression wear layer.
 - a. Type: Virgin TPV rubber granules. Nominal 0.250 inch (6 mm) thick.
 - 4. Size: 23.75 inches by 23.75 inches, plus or minus 1/8 inch
 - 5. Thickness: 1.25 inches
 - 6. Freeze Thaw, ASTM C 67: No deterioration.
 - 7. Rubber Deterioration / Air Oven, ASTM D 573: No deterioration.
 - 8. Slip Resistance:
 - a. ASTM E 303:
 - 1) Dry: 102.
 - 2) Wet: 62.
 - b. ASTM D 2047:
 - 1) Dry: 0.81.
 - 2) Wet: 0.82.
 - 9. Compression Deflection, ASTM D 1667: 29.5 psi (2.1 kgs/sq. cm) to 25 percent compression.
 - 10. Compression Set, ASTM D 395: 4.37 percent permanent set.
 - 11. Tensile Strength, ASTM D 412: 107 psi (7.5 kgs/sq. cm).
 - 12. Elongation at Break, ASTM D 412: 165 percent.
 - 13. Tear Strength, ASTM D 624: 33.1 psi (2.3 kgs/sq. cm).
 - 14. Wear Surface Density (Durability): 90 pcf (961 kg/cu. m) minimum.
 - 15. Critical Radiant Flux, ASTM E 648: Class II, .34
 - 16. Flammability:
 - a. Burning Pill, ASTM D 2859: Pass.
- C. Accessories:
 - 1. Corners:
 - a. Prefabricated outside and inside corners.
 - b. Material: Same as surfacing tiles.
 - 2. Ramps:
 - a. Prefabricated Ramps
 - b. Prefabricated ADA-Compliant Ramps
 - c. Material: Same as surfacing tiles.



PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Subsurface: Install adhesive at the perimeter of the installation as recommended by the manufacturer.
- D. Variations in Elevation: Repair variations in elevation of completed subsurface greater than plus or minus 1/4 inch (6 mm) over 10 feet (3 m) in any direction.

3.3 INSTALLATION

- A. Install surfacing in accordance with manufacturer's instructions at locations indicated on the Drawings.
- B. Ensure prepared subsurface is dry and clean.
- C. Layout surface pattern in accordance with manufacturer's instructions.

3.4 CLEANING

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

3.5 PROTECTION

- A. Protect completed tiles from damage during construction.

END OF SECTION

The products in this specification are based on the products of:

Infinity Performance, Inc.

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Indianapolis, IN 46260

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