



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 **113 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 **113 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		
Acoustical A09-009	ASTM EC423 / E795	SAA = 0.14, NRC = 0.15
Acoustical TL08-363	E90 / E413	STC = 53
Acoustical IN08-050	E492 / E989	IIC – 59
Acoustical IFC09-002	E2179	DELTA IIC 26 IICc 54
Tensile Strength	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 (Slip Resistance)	D2047	Dry .81 Wet .82
Noise Reduction Coefficient	C423	0.10 sabine/ft ²
Rubber Deterioration / Air Oven	D573	No Deterioration
Critical Radiant Flux	E648	Class II - .34
Flammability	E648	Class 2
Flammability (Burning Pill Test)	D2859	Passed
Flammability – Roof Covering	E108	Class A
Freeze Thaw	C67	No Deterioration



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: Surface Systems



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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