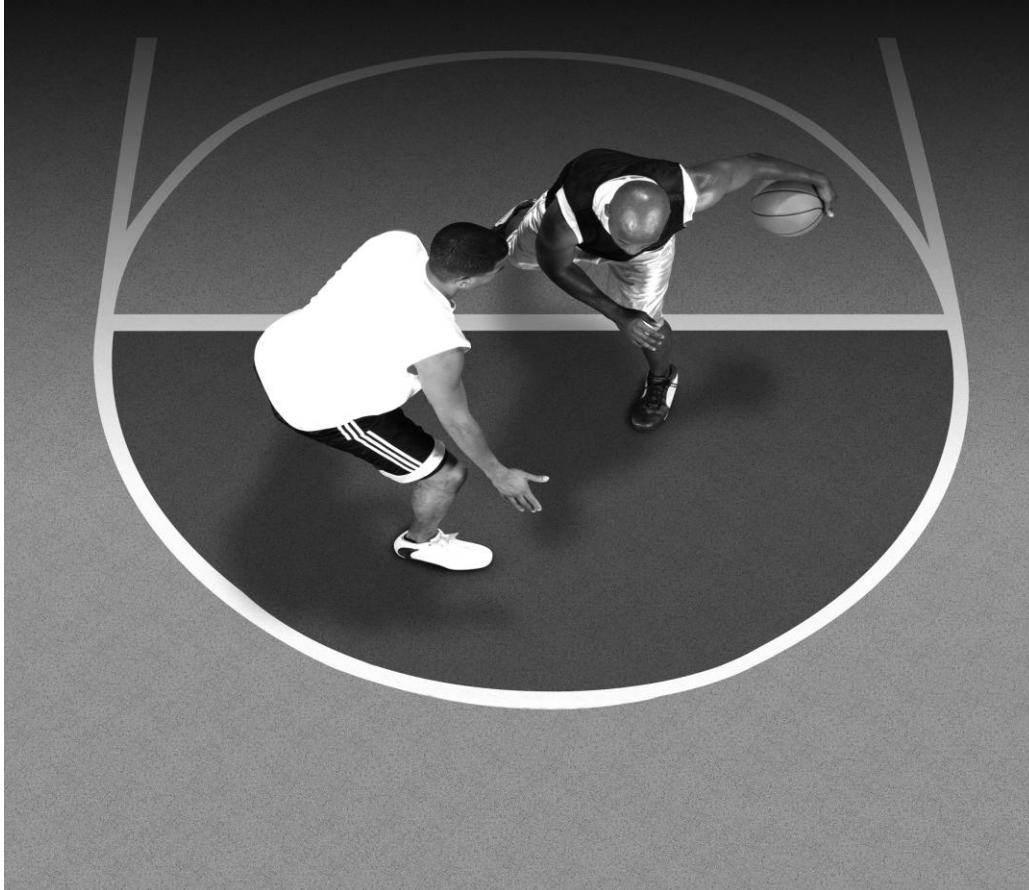


EVERLAST[®]
SPORTS SURFACING

with 
NIKE GRIND



Everlast Performance (4+6)

GUIDE SPECIFICATIONS

Manufactured in the U.S.A. by:

ecore[™]
— INTERNATIONAL —

Revised on 11/18/11.
Supersedes all
previous versions.
Check website for
updates.

EVERLAST PERFORMANCE 4 + 6 with Nike Grind

January 13, 2011- This MS Word document is provided solely as a convenience for spec writers in the drafting process. ECORE International will not be held responsible for the use or alteration of any information contained herein. For a final approved PDF version of these specifications please visit the literature page at www.everlastsportssurfacing.com.

**Specifier Note: The following CSI (Construction Specifications Institute) section describes the resilient athletic flooring system to be installed on the specific project. The number and title of the section may be changed if the Specifier deems necessary; but in any circumstance it will belong to the general CSI Section 09 65 00: Resilient Flooring.
SECTION 09 65 66 Resilient Athletic Flooring**

1 PART 1 – GENERAL

1.1 SUMMARY

1.1.1 Products Supplied

- A. Resilient (rubber) athletic flooring.
- B. Adhesive and accessories required for installation, maintenance and repair.

1.1.2 Related Requirements

Specifier Note: the following CSI sections of the project manual are a guide to what is the essential information needed to determine the acceptability of the site conditions and details of the installation of EVERLAST product by ECORE. The Specifier may choose to include other sections he/she deems necessary.

- A. Section 02 25 00 – Existing Material Assessment
- B. Section 03 05 00 – Common Work Results for Concrete
- C. Section 06 05 00 – Common Work Results for Wood, Plastics, and Composites
- D. Section 07 05 00 – Common Work Results for Thermal and Moisture Protection
- E. Section 07 10 00 – Dampproofing and Waterproofing

1.2 REFERENCES

1.2.1 American Society for Testing & Materials (ASTM)

- A. ASTM D2047: Standard Test Method for Static Coefficient of Friction of Polish-Coated Floor Surfaces as measured by the James Machine.
- B. ASTM D2240: Standard Test Method for Rubber Property (Durometer Hardness).
- C. ASTM D5116: Standard Guide for Small-Scale Environmental Chamber Determinations of Organic Emissions from Indoor Materials/Products.
- D. ASTM E648: Standard Test Method for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source.

- E. ASTM E662: Standard Test Method for Specific Optical Density of Smoke Generated by Solid Materials.
- F. ASTM E1745: Standard Specification for Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs.
- G. ASTM F970: Standard Test Method for Static Load Limit.
- H. ASTM F1869: Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride.
- I. ASTM F2170 Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes.
- J. ASTM G21: Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi.
- K. ASTM F710: Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring.
- L. ASTM F2772: Standard Specification for Athletic Performance Properties of Indoor Sports Floor Systems.
 - a. ASTM F2569 – Test Method for evaluating the force reduction properties
 - b. EN 12235 – Determination of vertical ball rebound behavior

1.2.2 DIN - Deutsche Industrial Norms (German standards agency)

DIN 18032-2: This Prestandard describes the requirements for the sports and protective functions of floors for sporting activities in halls for gymnastics, games and multi-purpose use, as well as their technical characteristics. Testing is also covered.

1.2.3 National Fire Protection Association

- A. NFPA 101: Life Safety Code®.

1.3 SUBMITTALS

Specifier Note: *The following are typical submittals. The Specifier may choose to include other submittals he/she deems necessary.*

1.3.1 Action Submittals

- A. Provide Manufacturer's current printed data sheets on specified products (flooring, adhesives, accessories, etc.).
- B. Provide shop drawings prepared for project illustrating layouts, details, dimensions and other data.
- C. Provide samples for verification of such characteristics as color, texture and finish.

1.3.2 Informational Submittals

- A. Provide Manufacturer's current installation guidelines as published by the Manufacturer.
- B. Certificates: If required, certification of performance characteristics specified in this document shall be provided by the manufacturer.

1.3.3 Closeout Submittals

- A. Provide Manufacturer's current maintenance guidelines as published by the Manufacturer.

- B. Provide Manufacturer's current standard warranty as published by the Manufacturer.

1.3.4 Maintenance Material Submittals

- A. Provide extra stock materials for use in facility operation and maintenance. Provide amount of approximately 2% of the total floor surface, of each type, color and dye lot.

1.4 QUALITY ASSURANCE

- A. Manufacturer must have experience in the manufacturing of prefabricated rubber athletic flooring.
- B. Installer must have performed installations of the same scale in the last three (3) years.
- C. Installer to be recognized and approved by the rubber athletic flooring Manufacturer. Specifier Note: Specify mock-up dimensions as instructed by Owner or Architect.
- D. Installation of mock-up is highly recommended and must be deemed acceptable by Owner and Architect. Mock-up is to be installed following the same procedures and utilizing the same specified materials that will be used for the actual project. - Mock-up size: [XX" x XX" (XX cm x XX cm)].

1.5 DELIVERY, STORAGE AND HANDLING

- A. Maintain a stable room and subfloor temperature for a period of 48 hours prior, during and 48 hours after installation. Recommended range: 65 degrees F to 86 degrees F.
- B. Installation to be carried out no sooner than the specified drying time of concrete subfloor (normal density concrete drying time is approximately 90--120 days for proper adhesion of resilient flooring).
- C. Installation of rubber athletic flooring will not commence unless all other trades in the building are completed.

1.6 SITE CONDITIONS

- A. Maintain a stable room and subfloor temperature for a period of 48 hours prior, during and 48 hours after installation. Recommended range: 65 degrees F to 86 degrees F.
- B. Installation to be carried out no sooner than the specified curing time of concrete subfloor (normal density concrete curing time is approximately 28 days for development of design strength).
- C. Moisture vapor emission content of the concrete slab must not exceed the tolerance of the adhesive used when tested using the anhydrous calcium chloride test as per ASTM F1869.
- D. Installation of rubber flooring will not commence unless all other trades in the building are completed.

1.7 WARRANTY

- A. Provide Manufacturer's current standard warranty.
- B. The rubber athletic flooring is warranted to be free from manufacturing defects for a period of three (3) years from the date of shipment from the Manufacturer.
- C. The rubber athletic flooring is warranted against excessive wear under normal usage for a period of five (5) years from the date installation.

2 PART 2 – PRODUCTS

Specifier Note: Retain article below for proprietary method specification. Add product attributes, performance characteristics, material standards, and descriptions as applicable. Use of such phrases as “or equal” or “or approved equal” or similar phrases may cause ambiguity in specifications. Such phrases require verification (procedural, legal, and regulatory) and assignment of responsibility for determining “or equal” products.

2.01 EVERLAST Performance (4+6) sports surfacing with Nike Grind- Recycled Rubber Flooring

A. Manufacturer: ECORE International™

1. Contact: P.O. Box 989, Lancaster, PA 17608-0989 (715 Fountain Avenue, Lancaster, PA 17601); Telephone: (888) 383-7655, (717) 295-3400; Fax: (717) 295.3414

B. Proprietary Product(s): EVERLAST sports surfacing with Nike Grind, manufactured by ECORE, for fitness and sports surfacing.

1. EVERLAST Performance (4+6) sports surfacing with Nike Grind – recycled rubber resilient sheet flooring
2. E-Grip III™ one-component polyurethane adhesive

C. EVERLAST Performance sports surfacing with Nike Grind

Specifier Note: *Specify color, size and thickness of product used in project.*

1. EVERLAST Performance with Nike Grind is a prefabricated rubber athletic flooring, having a surface layer of 100% EPDM with Nike Grind laminated to a 100% recycled rubber underlayment as manufactured by ECORE International, Inc. or approved equal.
2. Thickness: 10mm total (4mm surface + 6mm underlayment).
3. Colors: provided in standard colors with others on request
4. Finish: smooth (matte).
5. Manufactured in two layers which are laminated together. The shore hardness of the top layer will be greater than that of the bottom layer; shore hardness of layers to be recommended by the manufacturer and the limits specified.
6. Material available in sheets: 4' wide and 50' long.

7. Performance

A. Performance of the prefabricated rubber athletic flooring to conform to the following criteria:

Performance Criteria	Test Method	Result
Tensile Strength	ASTM D 412	> 200
Flexibility ¼" mandrel	ASTM F 137	Pass
Thermal Conductivity	ASTM C 518	> 0.4
Static Load Limit	ASTM F 970	< 0.02
Fungal Resistance Test	ASTM G 21-90	No growth
Coefficient of Friction	ASTM D 2047	> 0.9
V.O.C. Compliant	ASTM D 5116	Yes
Color Stability		Good
Light reflection		Good
Chemical Resistance		Good
Standard Vertical Deformation	DIN 18032-2	1.0 mm
Deformation Trough W100	DIN 18032-2	0.0 mm
Rolling Load Limit	DIN 18032-2	1000 N
Ball Rebound	DIN 18032-2	99%
Impact Resistance	DIN 18032-2	18 Nm
Remaining Indentation	DIN 18032-2	0.17 mm
Standard Sheet Dimension	Manufacturer	4' width by 50' length
Standard Tolerance Width	Manufacturer	+ ¾" – 0"
Standard Tolerance Length	Manufacturer	+ 1% - 0"
Standard Tolerance Thickness	Manufacturer	+ .6 mm
Standard Sheet Weight	Manufacturer	2.02 lbs/sf
Ball Rebound	EN 12235	Pass
Force Reduction	ASTM F2569 / EN 14808	Class 1

8. Materials

- A. Provide EVERLAST Performance with Nike Grind prefabricated rubber athletic flooring manufactured by ECORE International, Inc. or approved equal.
- B. Provide rubber athletic surface as specified in section 2.1.2 Description.
- C. E-Grip III one-component polyurethane adhesive

- 1. Product Name: The one-part urethane adhesive under this specification shall be ECORE's E-Grip III one-component polyurethane adhesive.

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- 2. Material: E-Grip III is a one-component polyurethane moisture cured, non-sag, permanently elastic adhesive that has excellent adhesion to elastomers, concrete, and wood and is engineered for indoor and outdoor applications.

3. Adhesive Type: one-component polyurethane
4. Adhesive Cure System: moisture cured
5. Weight: 4 gallon pail – 56 lbs
2 gallon pail – 28 lbs
10.1 oz. cartridge
6. VOC Content: 0 (calculated)
7. Solvents: None
8. Freeze / Thaw: Stable
9. Application Temperature: 40°F to 100°F
10. Calcium Chloride Test (ASTM F1869): Maximum 5.5 lbs per 1,000 sq.ft. in 24 hrs. allowable
11. Flashpoint: >500° F
12. Shelf Life: 12 months
13. Working Time: 30-40 minutes
14. Trowel: 1/16" square notched trowel ⁽¹⁾
15. Coverage Rate: 95 ft² per gallon (1/16" square notched trowel)
16. SCAQMD Rule #1168: 0 (calculated)

⁽¹⁾For indoor installation on concrete or plywood subfloors only. See EVERLAST Performance (4+6) Installation Manual for instructions.

2.2 ACCESSORY PRODUCTS

Specifier Note: accessories should be specified in accordance with the project requirements

- A. Provide adhesive certified by the Manufacturer: EGRIP III (refer to instruction manual of adhesives provided by rubber athletic flooring Manufacturer).
- B. Patching or leveling compound to be supplied and/or recommended/approved by rubber athletic flooring Manufacturer.
- C. Gameline paint products to be supplied and/or recommended/approved by rubber athletic flooring Manufacturer.

3 PART 3 – EXECUTION

3.1 INSTALLERS

- A. Refer to section 1.4 of this document for information on installers.

3.2 EXAMINATION

Specifier Note: the following must be ensured prior to installation of the primary product.

- A. Concrete or asphalt subfloors to be placed a minimum of twenty-eight (28) days prior to installation of rubber athletic flooring.
- B. Concrete or asphalt subfloors on or below grade are installed over a suitable moisture retardant membrane. Water vapor membrane complies with specification in ASTM E1745.
- C. No concrete or asphalt sealers or curing compounds are applied or mixed with the subfloors (refer to Section 03 05 00 – Common Work Results for Concrete of Division 3).

- D. The underlayment is adequate (if installing over wood subfloors, ECORE only recommends APA (Engineered Wood Association) Exterior grade plywood or CANPLY Exterior Certified plywood (Group 1, CC type).
- E. Moisture and alkalinity tests must be preformed. Moisture content must not exceed the capacity of the specified adhesive (verify using the anhydrous calcium chloride test as per ASTM F1869) and pH level should be in the range of 7 to 8.5.
- F. Smooth, dense finish, highly compacted with a tolerance of 1/8" in a 10 ft radius (3.2 mm in 3.05m radius). Floor Flatness (FF) and Floor Levelness (FL) numbers are not recognized.

3.3 PREPARATION

Specifier Note: *Subfloors are to be prepared according to Manufacturer's written instructions. It is recommended that the Specifier review the preparation process from the Manufacturer's printed recommendations given to him/her by the Technical Department of ECORE International, Inc. The following are considered common practice subfloor preparation to receive floor finishing products, and as such, should not be omitted or altered in any case.*

- A. Prepare subfloor in accordance with Manufacturer's current printed Subfloor Preparation guidelines

3.4 INSTALLATION

Specifier Note: *Products are to be installed according to Manufacturer's written instructions. It is recommended that the Specifier review the installation process from the Manufacturer's printed installation manual or from the installation procedures given to him/her by the Technical Department of ECORE International, Inc. The following procedures may be altered in special project cases, as deemed necessary by the Specifier, and after having consulted the Technical Department of ECORE International, Inc.*

2.8.1 Installation of Sheet Goods

- A. Install rubber athletic flooring in accordance with Manufacturer's current printed installation Manual.

3.5 REPAIR

- A. Refer to section 1.3.4 for extra stock materials.
- B. Repair material must be from the same dye lot as material supplied for initial installation
- C. Repairs are to be performed by qualified installers/technicians only.

3.6 CLEANING

- A. Initial cleaning should only be performed 72 hours after the rubber athletic surface has been completely installed.
- B. Maintain rubber athletic flooring according to Manufacturer's current maintenance instructions for specified product.

3.7 PROTECTION

- A. Rubber athletic flooring surface can be protected with Masonite during and after the installation, prior to acceptance by the Owner.

END OF SECTION

ECORE International reserves the right to make updates to this manual at any time.
For the most updated version please visit www.everlastsportssurfacing.com.