



Action V-Sport 710

Resilient Athletic Flooring

SPORTS FLOOR SPECIFICATIONS

SECTION 096566 - RESILIENT ATHLETIC FLOORING

PART 1 - GENERAL

SUMMARY

Section Includes: Sheet vinyl resilient athletic flooring.

ACTION SUBMITTALS

Product Data: For each type of product indicated.

Manufacturer Certifications:

Provide certification that accurately identifies the Manufacturer of flooring furnished for this project.

All "manufacturer" requirements in these specifications must be complied with by the OEM, including warranties, certifications, qualifications, product data, test results, environmental requirements, performance data, etc.

Provide ISO 9001 certification for the OEM of the specified products.

Provide ISO 14001 certification for the OEM of the specified products.

Laboratory Test Results:

Where required by owner, provide certification of testing per ASTM F2772-11 and the product being furnished complies with the ASTM Indoor Sport Floor Classification specified for this project.

Samples:

Manufacturer's color chart for selection of available standard colors. Individual samples of approximate 8.5" x 11" should be made available upon request.

INFORMATIONAL SUBMITTALS

Qualification Data:

For a qualified resilient athletic flooring Manufacturer.

For a qualified resilient athletic flooring Installer.

CLOSEOUT SUBMITTALS

Submit three copies of the following:
Manufacturer maintenance instructions

Manufacturer material warranty

QUALITY ASSURANCE

Manufacturer Qualifications:

ISO 9001 Certified.

ISO 14001 Certified.

At least ten years active experience in the manufacture and marketing of indoor resilient athletic flooring.

A provider of authorized installer training.

Installer Qualifications:

At least five years experience in the installation of resilient athletic flooring.

Experience on at least five projects of similar size, type and complexity as this project.

Employer of workers for this Project who are competent in techniques required by manufacturer for resilient athletic flooring installation indicated.

Fire Test Characteristics: As determined by testing identical products according to ASTM E 648, Class 1, by a qualified testing agency acceptable to authorities having jurisdiction.

Athletic Performance: Comply with ASTM F 2772 Class 2 for force reduction, ball bounce, vertical deformation and friction.

DELIVERY, STORAGE, AND HANDLING

Store flooring and installation materials in protected dry spaces, with ambient temperatures maintained within range recommended by manufacturer, but not less than 55 deg F (13 deg C) nor more than 85 deg F (29 deg C).

Store the indoor resilient athletic surfacing rolls in an upright position on a smooth flat surface immediately upon delivery to Project.

FIELD CONDITIONS

Product Installation:

Maintain temperatures during installation within range recommended by manufacturer, but not less than 65 deg F (18 deg C) in spaces to receive flooring for 72 hours prior, during and 72 hours after the installation.

After installation, maintain temperatures within range recommended by manufacturer, but not less than 55 deg F (13 deg C) or more than 85 deg F (29 deg C).

Prohibit traffic during flooring installation and for at least 72 hours after flooring installation. Ensure proper protection is in place if other trades are using space after completion.

Install flooring only after other finishing work, including painting and overhead work, has been completed.

Test slab for moisture to determine installation method, and requirement for PROTEKT system.
(Notify owner or consultant immediately in writing, of results and extra costs if required)

WARRANTY

Special Limited Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace sports flooring that fails within specified warranty period.

Material warranty must be direct from the product manufacturer

Failures include, but are not limited to, the following:

Manufacturing defects.

Surface wear to the point of wear-through.

Failure due to substrate moisture exposure not exceeding 94 percent relative humidity when tested according to ASTM F2170 or 8.5 pounds moisture vapor emission rate when tested according to ASTM F1869.

Warranty Period:

For material defects and surface wear-through: 10 years from date of Substantial Completion.

For moisture vapor tolerance: 1 year from date of Substantial Completion.

For installation, installer will make any repairs or replace as determined by owner for any failure due to poor or faulty installation, for a period of up to 2 years from date of Substantial Completion.

ENVIRONMENT AND INDOOR AIR QUALITY

LEED™ Documentation:

MR Credits: For products having recycled content, indicate percentage by weight of post-consumer and pre-consumer recycled content.

IEQ Credits: For adhesives and flooring, including a statement of VOC content.

Indoor Air Quality Certification:

Manufacturer's certification of factory applied permanent Anti-Bacterial/Fungicidal Treatment throughout the flooring material, will protect flooring throughout, and eliminate potential air quality hazards resulting from growth of moulds or fungi.

Manufacturer Certification of Environmental Procedures:

Manufacturer's ISO 14001 Certification

COORDINATION

Coordinate layout and installation of flooring with other gymnasium equipment.

PART 1 - PRODUCTS

SHEET VINYL ATHLETIC FLOORING

Basis-of-Design Manufacture: Subject to compliance with requirements, provide Action V-Sport 710 athletic surfacing, installed with recommended installation method ("Less" Glue).

Substitution Limitations:

No substitutions.

Product Description: Dual-durometer foam-backed sheet vinyl flooring designed for fully adhered athletic flooring applications.

Overall Thickness: Not less than 7.1 mm.

Wear-Layer Thickness: Not less than 2.1 mm.

Backing: high density, two layer, dual-durometer, closed cell foam with reinforced fiberglass grid AND secondary non-woven fiberglass interlayer.

Seaming Method: Heat welded.

Installation Method:

"Less" Glue (recommended) installation method as described in manufacturers certified installer handbook & training.

Flooring to be properly cut and fit, to ensure all gaps and seams are within recommended tolerances for welding & aesthetics.

Surfaces, including solids and wood designs must be hammered or pebbled texture for a consistent appearance and ideal maintenance characteristics.

Surface to be treated with factory applied permanent Anti-Bacterial/Fungicidal Treatment throughout the flooring material, to protect flooring, and eliminate potential air quality hazards resulting from growth of moulds or fungi.

PUR coating: Manufacturer's, factory-applied, permanent and UV-cured

Roll Size:

Roll Width & Length: Wood visuals to be 1.5m or 1.8m wide x 26.4m long for typical basketball installation with minimal or no cross seams. Solid (accent) colours to be 1.8m wide x 20m long for efficient layout of typical keys and borders.

Performance Criteria:

ASTM F 2772-11 Indoor Sport Floor Standard:

Where required by owner, provide certification of compliance for the four ASTM F2772 Indoor Sport Floor Standard performance categories:

Shock Absorption/Force Reduction:

Class C2 (22% to 33%). Pass

Ball Bounce:

Minimum 90%: Pass

Surface effect/Coefficient of Friction:

Between 80-110: Pass

Vertical deformation:

Maximum 3.5mm: Pass

Static Load Limit/Residual Indentation:

ASTM F1303; Pass Static Load Resistance requirement of less than 0.005 inch of residual indentation as tested per ASTM F 970 at prescribed test load of 175 p.s.i.

EN 1516; Pass, Less than or equal to 0.5 mm.

Resistance to Rolling Load: EN 1569; Pass.

Chemical Resistance: ASTM D 543; OK.

Impact Resistance: EN 1517; Pass.

Abrasion Resistance: EN ISO 5470; Pass.

Sound Insulation: EN ISO 717; 18 dB.

Gloss/Brightness: EN ISO 2813; Pass.

Organic Emission: ASTM D 5116; Pass

Fire Performance: ASTM E 648; Greater than 0.45 W/cm², Class 1.

Surface Maintenance Requirements: No-wax surface requiring only cleaning and rinsing.

Slab Moisture Design Tolerance:

Maximum relative humidity of 94 percent when tested according to ASTM F 2170.

Maximum moisture vapor emission rate of 8.5 pounds of water per 1000 sq. ft. in 24 hours when tested according to ASTM F1869.

ACCESSORIES

Trowelable Leveling and Patching Compound: cement-based formulation approved by athletic flooring manufacturer.

Adhesives: As recommended by athletic flooring manufacturer for substrate and conditions indicated.

Heat Welding Rod: Colour matched, as supplied by indoor resilient athletic flooring manufacturer.

Game-Line and Marker Paint: As recommended by flooring manufacturers.

PART 2 - EXECUTION

EXAMINATION

Verify the Following:

The area in which the indoor resilient athletic flooring will be installed is dry, weather-tight and in compliance with specified requirements.

Permanent heat, lighting and ventilation systems are installed and operable.

Other work, including overhead work, that could cause damage, dirt, dust or otherwise interrupt installation has been completed or suspended.

No foreign materials or objects are present on the substrate and that it is clean and ready for preparation and installation.

Tests to verify that the moisture evaporative rate or substrate relative humidity is within the specified ranges.

The concrete slab surface pH level is within the specified range.

The concrete slab surface deviation is no greater than 3/16 inch within 10 feet (3.2 mm within 3 m) when measured according to ASTM E 1155.

The concrete slab complies with ACI 302.2R for concrete design including use of a low-permeance vapor barrier directly beneath the concrete subfloor with sealed penetrations.

PREPARATION

Prepare substrates according to manufacturer's written recommendations to ensure proper adhesion of resilient athletic flooring system.

Concrete Substrates: Prepare according to ASTM F 710.

Verify that substrates are dry and free of sealers, curing compounds and other additives. Remove coatings and other substances that are incompatible with adhesives using mechanical methods recommended by manufacturer.

Alkalinity Testing: Perform pH testing according to ASTM F 710. Proceed with installation only if pH readings are between 7.0 and 8.5.

Moisture Testing: Perform ASTM F 2170 relative humidity test and proceed with installation only after substrates have maximum relative humidity of 90 percent. Or perform ASTM F 1869 calcium chloride test and proceed with installation only after substrates have maximum moisture-vapor-emission rate of 8 lb of water/1000 sq. ft. in 24 hours.

Use trowelable concrete based leveling and patching compound with the same moisture vapor tolerance as the adhesive to fill depressions, holes, cracks, grooves or other irregularities in substrate.

Place flooring and installation materials into spaces where they will be installed at least 72 hours before installation. Install flooring materials only after they have reached the same temperature as space where they are to be installed.

Sand the surface of the concrete slab.

Sweep and then vacuum substrates immediately before installation. After cleaning, examine substrate for moisture, alkaline salts, grit, dust or other contamination. Proceed with installation only after unsatisfactory conditions have been corrected.

SHEET ATHLETIC FLOORING INSTALLATION

General:

Comply with manufacturer's installation instructions.

Fit flooring neatly and tightly to vertical surfaces, equipment anchors, floor outlets, and other interruptions of floor surface.

Extend flooring into toe spaces, door reveals, closets, and similar openings unless otherwise indicated.

Lay out flooring as follows:

Minimize number of seams and place them inconspicuous areas.

“Less” Glue Method – place adhesive as required and directed by manufacturer

Vinyl Sheet Flooring Seams: Finish seams to produce surfaces flush with adjoining flooring surfaces. Comply with ASTM F 1516. Rout joints and use heat welding rod to permanently and seamlessly fuse sections together.

GAME LINES AND LOGOS

Lay out game lines and logos to comply with rules and diagrams published by appropriate and recognized associations and local requirements.

Mask flooring at game lines and logos, and apply paint of color indicated to produce clean, sharp and distinct edges.

CLEANING AND PROTECTION

Perform the following operations after completing resilient athletic flooring installation:

Remove marks and blemishes from flooring surfaces.

Sweep and then vacuum flooring.

Damp-mop flooring to remove soiling.

Protect flooring from abrasions, indentations, and other damage from subsequent operations and placement of equipment, during remainder of construction period.