

SECTION 09666
RESILIENT SHEET AND TILE FLOORING
PROTECT-ALL® FLOORING
PROTECT-ALL Matte & PROTECT-ALL Gloss Flooring Specifications

(March, 2010)

PART 1 - GENERAL

1.01 DESCRIPTION

A. This section specifies resilient PROTECT-ALL flooring system and includes the following:

1. Resilient sheet floor covering, 1/8" and 1/4" thicknesses.
2. Adhesives, chemical welding, heat welding
3. Trim components and accessories.

1.02 RELATED WORK

A. Reducer strips and other accessories installed with floor coverings may be specified in Division 9 Section.

1.03 SUBMITTALS

A. General: Submit the following in accordance with Conditions of Contract and Division 1 Specification Sections.

B. Product data for each type of product specified.
Guidelines by floor covering manufacturer that products supplied for installation comply with local regulations.

C. Shop drawings showing location of seams and edge strips. Indicate location of columns, doorways, enclosing partitions, built-in cabinets, and locations where cutouts are required in flooring.

D. Samples for initial selection purposes in form of manufacturer's color charts of actual sections of floor coverings that show full range of colors available for each different product indicated.

E. Samples for verification purposes of each color of floor covering product specified, showing full range of variations expected in these characteristics.

F. List of PROTECT-ALL factory trained installers and distributors.

G. Maintenance data for floor coverings, including the Operating and Maintenance Manual specified in Division 1.

1.04 QUALITY ASSURANCE

- A. Installer Qualifications: Contact an installer that is recommended by floor covering manufacturer. If necessary, field-applied finish and game line painting is the responsibility of the contractor and facility owner.
- B. Single-Source Responsibility for Sheet Vinyl Floor Coverings: Obtain each type and color of sheet vinyl floor covering from a single source with resources to provide products of consistent quality in appearance and physical properties, without delaying progress of the work.
- C. Fire performance characteristics: Provide floor coverings with the following fire performance characteristics, as supplied by Underwriters Laboratories, Inc. (UL), or other testing & inspecting agency that is acceptable to the authorities having jurisdiction. *Results are determined by testing products with ASTM test method.*
 - 1. Critical Radiant Flux: 1.05 watts per sq. cm. per ASTM E 648. Rated Class I
 - 2. Burn Distance: 20 cm per ASTM E648.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Deliver floor coverings and installation materials to project site in original manufacture's unopened cartons and containers, each bearing names of product and manufacturer, project identification, as well as shipping and handling instructions.
- B. Store flooring materials in dry spaces protected from the weather, with ambient temperatures maintained at **70°F (21.11°C)** +/- 10°.

1.06 PROJECT CONDITIONS

- A. Maintain a minimum temperature of **70°F (21°C)** in spaces to receive floor coverings for at least 36 hours prior to installation, during installation, and for no less than 36 hours after installation.
- B. Close area to traffic while installing floor covering, and if flooring adhesive has been used, for 7-8 days after completion.

1.07 SEQUENCING AND SCHEDULING

- A. The flooring installation should not begin until work of all other trades have been completed.
- B. Do not install floor coverings over concrete slabs until the slabs have cured and are sufficiently dry to bond with adhesive as determined by floor covering manufacturer's recommended bond and moisture test.

1.08 EXTRA MATERIALS

- A. Deliver extra materials to owner. Furnish extra materials matching products installed as described below, packaged with protective covering for storage, and identified with labels clearly describing contents.

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1.09 WARRANTIES

- A. Attention is directed to provisions of the GENERAL CONDITIONS regarding warranties.
- B. Manufacturer provides a limited 10-year warranty against manufacturing defects. Warranty does not in any way cover installation-related issues.

PART 2 - PRODUCTS

2.01 MANUFACTURER

- A. Products: Subject to compliance with requirements, floor coverings that may be incorporated in the work, include PROTECT-ALL (sheet material) and chemical weld/heat weld as manufactured by Oscoda Plastics, Inc. Tel.: 1-800-544-9538.

2.02 RESILIENT FLOOR COVERINGS

- A. Resilient Floor Covering: Must be manufactured from 100% recycled polyvinylchloride, interlaced with strand reinforcement.
- B. Sheet Vinyl Floor Covering: Provide PROTECT-ALL sheets (60"x 60"), (60"x 96") or tiles (24" x 24"), (18" x 18" Interlocking) in size (1/4" or 1/8" thick), with a matte or gloss finish. Color to be selected from manufacturer's standard available colors.

2.03 INSTALLATION ACCESSORIES

- A. Trowelable Underlayments and Patching Compounds: cementitious formulation recommended by floor covering manufacturer for applications indicated, with minimum compressive strength of 3,500 psi. (ACI 302.2R-06 Ch. 9.5)
- B. Adhesives: As recommended by manufacturer to suit floor covering products, type of traffic conditions expected, and substrate conditions indicated.
- C. Chemical-Weld and Heat-Weld materials: As supplied by floor covering manufacturer for products indicated.
- D. Metal trim and accessories: Stainless steel transition strips, drain rings, corner guards and aluminum/PVC cove cap of sufficient size to protect exposed edge of floor coverings and base.
- E. Cove cap.
- E. Game Line Paint: It is the responsibility of the paint manufacturer to ensure compatibility of their product with PROTECT-ALL Commercial Flooring.

PART 3 - EXECUTION

3.01 EXAMINATION

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General: Examine areas where installation of sheet vinyl floor coverings will occur, with installer present, to verify that substrates and conditions are satisfactory for installation and comply with floor covering manufacturer's requirements.

A. Proper substrate

1. Assure that the substrate material is suitable for installation of flooring as indicated by manufacturer. Approved substrates include: marine-grade wood, cement board, and concrete (non-gypsum based only), properly cleaned and prepared per manufacturers guidelines.
2. Slab substrates must be dry and free of curing compounds, sealers, hardeners, and other materials whose presence would interfere with bonding of adhesive. Determine adhesion and dryness characteristics by performing bond and moisture tests recommended by floor covering manufacturer.
3. Verify a clean, dry, and structurally sound surface to accept adhesive, free of cracks, ridges, depression, scales, and foreign deposits of any kind.
4. Use only cementitious patching and filling compounds (3000 PSI). Consult manufacturer for details. (ACI 302.2R-06 ch. 9.5)
5. Assure that the levelness (F_L 15), and flatness (F_F 20 5/16 in 10 Ft.) of surface is in compliance with manufacturer's guidelines.
6. Verify that sub-floor surfaces (concrete, marine-grade plywood, cement board) are ready for resilient flooring installation by testing moisture emission rate and alkalinity, in accordance with ASTM F 710; obtain instructions if test results are not within limits recommended by resilient flooring manufacturer and adhesive materials manufacturer. Reference ASTM F 710 - Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring.
7. The following standards apply:
 - ASTM E 1745-97 – Standard Specification for Water Vapor Retarders
 - ASTM E 1643 – Standard Practice for Installation of Water Vapor Retarders used in contact with Earth or Granular Fill Under Concrete Slabs
 - ASTM E 96-00 – Standard Test Method for Water Vapor Transmission of Materials
 - ACI 302.1R-04 – Guide for Floor and Concrete Slab Construction
 - ACI 302.2R-06 – Guide for Concrete Slabs That Receive Moisture-Sensitive Flooring Materials
 - ASTM F710-08 – Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring
 - ASTM F 1869 – Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride

B. For wood sub-floors verify the following:

1. Underlayment over sub-floor complies with requirements specified in Division 6 "Rough Carpentry", as well as NWA Installation Guidelines, Section 11, ch. 3-4.
2. Underlayment surface is free of surface irregularities and substances that have potential to interfere with adhesive bond, show through surface or stain floor coverings. Reference ASTM F1482 Standard Practice for Installing and Preparation of Panel Type Underlayments to Receive Resilient Flooring.

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C. Environmental Conditions

1. The contractor and installer of product is responsible for providing and maintaining a proper installation environment.
 - 1a. PROTECT-ALL is not to be installed over any existing finish, such as quarry tile, any paint, or any type of tile.
 - 1b. PROTECT-ALL should not be installed in an “operating environment,” meaning an environment that is not prepared to close entirely for the duration of the installation.
2. Installation area must be enclosed and watertight with all walls, wall finishes, doors, and floor penetrations in place.
3. Proper temperature acclimation of flooring material is required prior to installation. Minimum of 36-hours.
4. Assure confinement of space during installation and curing of adhesives to prevent other trades from damaging the product or compromising the adhesion.
5. Maintain a constant temperature during the installation and throughout the curing of adhesives.
6. Provide a secure area to store materials for installation.
7. Building must be completely enclosed and water-tight. H-VAC system must be on at least 7 days prior to installation beginning, keeping the interior temperature at 70°. This temperature should be maintained during the installation, and an additional 8 days after completion.

3.02 PREPARATION

- A. General: Comply with manufacturer’s installation specifications to prepare substrates indicated to receive floor coverings.
- B. Use trowelable leveling and patching compounds (must be of a cementitious type providing a minimum of 3500 psi) per floor covering manufacturer’s direction to fill cracks, holes, and depressions in substrates.
- C. Remove coatings such as curing compounds and other substances that are incompatible with flooring adhesives, and that contain soap, wax, oil or silicone.
- D. Broom or vacuum clean substrates to be covered immediately before installation. Following cleaning, examine substrates to determine if there is any evidence of moisture, alkaline salts, carbonation or dust.

3.03 INSTALLATION

- A. General: Comply with floor covering manufacturer’s installation instructions and other requirements that are applicable to each type of floor covering installation included in project.
- B. Lay out floor coverings to comply with the following requirements:

1. Maintain uniformity of sheet vinyl floor covering direction.

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2. Arrange for a minimum number of seams and place them in inconspicuous and low traffic areas, but in no case, less than **12 inches (150 mm)** away from parallel joints in flooring substrates.
 3. Match edges of floor coverings for color shading and pattern at seams.
- C. Flooring should be installed prior to use of any other items that may be necessary for installing on top of the finished floor.
- D. For glue-down installations scribe, cut and fit floor coverings to fit tightly to vertical surfaces, permanent fixtures, and built-in furniture such as cabinets, pipes, outlets, edgings, thresholds, and nosings.
- E. For loose-lay applications (no floor adhesive), scribe, cut and fit floor coverings to provide a ¼" expansion gap at vertical surfaces, permanent fixtures and built-in furniture.
- F. Extend floor coverings into toe spaces, door reveals, closets, and similar openings.
- G. Maintain reference markers, holes or openings that are in place or plainly marked for future cutting by repeating on finish flooring as marked on sub-floor. Use chalk or other non-permanent marking device.
- H. Install floor coverings on covers for telephone and electrical ducts, and similar items occurring within finished floor areas. Maintain overall continuity of color and pattern with pieces of flooring installed on these covers. Tightly adhere edges to perimeter of floor around covers and to covers.
- I. Unless a loose-lay application is specified, adhere sheet floor coverings to flooring substrates by method approved by floor covering manufacturer.
1. Complete installation without open cracks, voids, raising, and puckering at joints, telegraphing of adhesive spreader marks or other surface imperfections.
 2. Comply with floor covering manufacture's directions, including those for trowel notching, adhesive mixing, as well as working and adhesive open times.
- J. Chemical-weld (loose-lay only) and heat-weld seams in sheet floor coverings where this seaming method is indicated. Prepare seams and perform appropriate welding method to produce tightly-fitted seams without gaps or overlaps. Perform chemical and heat-welding methods per instructions found in "PROTECT-ALL Installation Guidelines."
- K. Immediately after laying sheet goods into the adhesive, roll sheet floor coverings in both directions from center out to embed floor coverings in adhesive and eliminate trapped air. At walls, door casings, and other locations where access by roller is impractical, press floor coverings firmly in place with flat-bladed instrument or hand roller. Repeat after one hour.

3.04 CLEANING AND PROTECTION

- A. Perform the following operations immediately after installing floor coverings:
1. Remove visible adhesive and other surface blemishes using method recommended by

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- floor covering manufacturer.
2. Sweep or vacuum floor thoroughly.
 3. Do not wash floor until after period of time recommended by floor covering manufacturer.
 4. Clean floor to remove black marks and soil.
- B. Protect flooring against mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period. Use protection methods indicated or recommended by floor covering manufacturer.
1. Apply game lines to floor covering surfaces that are free from soil, visible adhesive and surface blemishes. Game lines are the responsibility of the contractor and facility owner.
 2. Cover floor coverings with undyed, untreated building paper until inspection.
 3. Do not move heavy and sharp objects directly over floor coverings. Place plywood or hardboard panels over floor coverings and under objects while they are being moved. Slide or roll objects over panels without moving panels.
- C. Clean flooring no more than four days prior to dates scheduled for inspections. Clean coverings by method recommended by manufacturer.

4.0 CONTACT INFORMATION

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