

SECTION 09650

PART I: GENERAL**1.1 RELATED DOCUMENTS**

- A. Bidding Requirements, Conditions of the Contract and portions of Division One of this Project Manual apply to this Section as though repeated herein.

1.2 WORK INCLUDED

- A. Teknoflor™ Timberscapes™ Collection Commercial Resilient Sheet Flooring with top set base.

1.3 RELATED WORK

- A. Cast-in-place Concrete (Approved Underslab Vapor Barrier): Section 03300.
B. Resilient Flooring: Section 09650.

1.4 QUALITY ASSURANCE

- A. Provide each type of resilient sheet flooring and accessories from a manufacturer, including recommended primers, adhesives, sealants, and leveling compounds.

1.5 SUBMITTALS

- A. Submit in accordance with Section 01300.
1. Manufacturer's technical data for each type of resilient flooring and accessory.
 2. Manufacturer's standard color chart in the form of actual selections of resilient sheet flooring, including accessories, showing full range of colors and patterns available.
 3. Two copies of manufacturer's recommended maintenance practices for resilient sheet flooring and accessories required.
 4. Jointing, Termination Details; Includes 8 ½" x 11" details indicating joint method, termination details including reducers and/or caps required.
 5. Moisture Test Results to be submitted to the Flooring distributor prior to delivery and installation of resilient sheet flooring. See flooring manufacturers recommended adhesive specifications for limitation information. If a concrete sealer was used, break bond past sealer for accurate reading.
 6. Concrete pH must be between 7.0 - 10.0 or within adhesive limitations. Perform test and submit results to Flooring Distributor.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials to project site in manufacturer's original, unopened containers with labels indicating brand names, colors and patterns, and quality designations legible and intact.
B. Store and protect materials in accordance with manufacturer's recommendations. Teknoflor™ rolls should be stored vertically.

1.7 PROJECT CONDITIONS

- A. Verify that an approved underslab vapor barrier has been installed under work of Section 03300. Concrete contractor shall not create holes in membrane. Repair holes as they appear.
B. Maintain minimum temperature of 70°F and maximum temperature of 85°F in spaces to receive resilient flooring for at least one week prior to installation, including all weekend hours, and for not less than 7 days after installation. Permanent heat must be used. Space heaters are not acceptable. Subsequently, maintain minimum temperature of 55°F and a maximum temperature of 85°F in areas where work is completed.
C. Store resilient flooring materials in spaces where they will be installed for at least 72 hours before beginning installation.

- D. Install resilient flooring and accessories after other finishing operations, including painting, have been completed.
- E. Do not install resilient flooring over concrete slabs until they have been cured and are sufficiently dry to achieve bond with adhesive as determined by resilient flooring manufacturer's recommended bond and moisture test. Concrete must be free of curing compounds or adhesives and have a compressive strength of 3500 psi or greater.
- F. Close areas to traffic and to other work until flooring is firmly set. Flooring shall have no foot traffic for 24 hours and no heavy fixtures or rolling carts are to be used on the floor for 72 hours. If traffic is necessary, cover floor with plywood.
- G. Where solvent based adhesives are used, provide safety, spark-proof fans when natural ventilation is not adequate.
- H. Subflooring must be dry.
- I. Floor covering should not be installed over expansion joints. Expansion joint covers compatible with floor covering should be used.
- J. Do not install floor covering over existing VCT or VAT without using an approved underlayment to hide tile seams.
- K. Inspect substrate for any contamination, such as oil drippings, cutback adhesives, etc. Encapsulate contamination with an encapsulator before progressing with the installation of the floor covering. The use of solvent-based adhesive removers is NOT recommended. Mapei's Plan/Patch Plus and Ardex 15 are acceptable coverings. Self-leveling underlayments can have very high moisture contents and require longer curing times, some up to 10 days. Therefore, check moisture level with a Calcium Chloride test prior to installation.

1.8 EXTRA MATERIALS

Furnish one per cent (1%) for each color installed.

1.9 WARRANTY

Twelve (12) year limited warranty commencing on date of substantial completion.

PART II: PRODUCTS

2.1 TEKNOFLOR™ TIMBERSCAPES WOODCRAFT COLLECTION COMMERCIAL RESILIENT SHEET FLOORING

A. Distributor and Importer:

Teknoflor 1005 S. 60TH Street, Milwaukee, WI 53214,
Toll Free: 800-522-9166

B. Installer: The installer shall be a certified Teknoflor™ installer. Call the distributor for certification requirements.

C. Product Description and Physical Characteristics:

1. Teknoflor™ Timberscapes™ Collection *directional* wood-grained commercial resilient sheet flooring.
2. Pattern Repeat: 24.62"L x 35.46"W
3. Nominal Thickness: 2.3 mm non-cushioned (.091")
4. Test Data:
 - a. Wear Layer: Type 1, Grade 1 per ASTM F1303, embossed clear PVC wear layer/polyurethane 20 mils.
 - b. Taber Abrasion Test: Weight loss .0390 grams. 33 wheels changed every 1,000 cycles S-33
 - c. Wear Resistance: 12,000 cycles, 500g load, S33 Tabor Abrasion Test
 - d. Stain Resistance to Betadine: No Dulling and No Surface Attack after 24 hours exposure
 - e. Backing Class: Class A; 4 ply fused backing system of .080" content PVC layer, fiberglass, PVC internal layer, polyester mesh back.
 - f. Critical Radiant Flux: ASTM648: NFPA Class 1
 - g. Smoke Density: ASTM-E662-94 <370 in flaming mode
 - h. Static Load Limit: ASTM F-970-07, 750 psi
 - i. Slip Resistance: (D204793) In compliance with ADA requirements
 - j. Resistance to Solvents: Complies with ASTM F-1303
 - k. Resistance to Chemicals with ASTM Test Method F925-85-1990: Results: No surface dulling, no color change, no surface attack when exposed to: gasoline, kerosene, oil, ammonia, water, hydrochloric acid, nitric acid, typewriter ribbon, ball point pen, ink, lipstick, animal fats, grease, alcohol, coffee and acetone. Slight effect when exposed to sulfuric acid.
 - l. **Nano-Silver Anti Microbial: Sample = < 10 bacteria after 24 hours**

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- m. Flexibility: Complies with ASTM-F1303
- 5. Nano-Silver Technology: Teknoflor™ Timberscapes™ collection is manufactured to include new germ killing technology designed to make facilities safer from bacteria such as Staph and E.coli, viruses like rhinovirus and molds. NANO-SILVER, extremely small particles of metallic silver, is added, giving a durable anti-microbial action. Silver particles are microscopic, making them invisible to the human eye and includes a process to add Ag+, Silver ions of nano size particles to safely coat floors, in a colorless anti-bacterial armor. Silver inhibits the growth of bacteria by deactivating the bacteria's oxygen metabolism enzymes. In turn, this destroys the bacteria cell membranes, killing the bacteria and stopping replication.

2.2 ACCESSORIES

- A. Adhesives: As recommended by flooring manufacturer to suit material and substrate conditions.
- B. Concrete Slab Primer: Non-staining type as recommended by flooring manufacturer.
- C. Patching, Leveling, Underlayment: Mastic Latex type equivalent to Camps latex underlayment.
- D. Welding Rods: Manufacturer's standard or equal; color as selected.
- E. Chemical Weld: Manufacturer's standard or equal.
- F. Terminating Reducers: Manufacturer's standard; color as selected.

PART III: EXECUTION

NOTE: Please refer to our "Teknoflor™ Installation Instructions" for more detailed installation instructions!

3.1 EXAMINATION

- A. Examine subfloor surfaces to determine that they are dry, clean, and smooth.
- B. Perform bond and moisture tests on concrete subfloors to determine if surfaces are sufficiently cured and dry as well as to ascertain presence of curing compound. Do not use curing compounds on concrete subfloors.
- C. Perform moisture tests in accordance with 1.5 A. 5 & 6.
- D. Submit moisture and concrete pH tests to Flooring Distributor before ordering flooring product
- E. Perform bond tests periodically throughout project.
- F. Do not allow resilient sheet flooring work to proceed until subfloor surfaces are satisfactory. Indicate adverse conditions of any type by letter to Architect and Flooring Distributor.

3.2 PREPARATION

- A. Sand or grind subfloors to remove mortar, paint, and other surface irregularities.
- B. Where leveling is required, apply latex type underlayment in two or more applications. Apply compound in accordance with manufacturer's printed instructions.
- C. **Remove all debris, sand, and other foreign materials or substances which may result in lack of adhesion, telegraphing or bleed through.**

3.3 GENERAL INSTALLATION PROCEDURES-PLEASE CALL US FOR INSTRUCTIONS

- A. Install resilient sheet flooring and accessories using method indicated in strict compliance with manufacturer's printed instructions. Extend resilient sheet flooring into toe spaces, door reveals, and into closets and similar openings.
- B. Scribe, cut and fit resilient sheet flooring to permanent fixtures, built-in furniture and cabinets, pipes, outlets and permanent columns, walls and partitions. Floor shall be tight to door bucks.
- C. Maintain reference markers, holes, or openings that are in place or plainly marked for future cutting by repeating on finish flooring as marked on subfloor. Use chalk or other non-staining marking device.
- D. **WARNING: DO NOT USE OR LAY OVER MAGIC MARKERS OR SIMILAR INSTRUMENTS. TEKNOFLOR WON'T BE RESPONSIBLE FOR CLAIMS RELATED TO TRANSFERABLE MARKERS!**
- E. Tightly cement resilient sheet to sub base without open cracks, voids, raising and puckering at joints, telegraphing of adhesive spreader marks, or other surface imperfections. Hand roll resilient sheet flooring at perimeter.
- F. **Use a 2-part epoxy adhesive, recommended by the Flooring Distributor, under any hospital beds or border pieces.**

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3.4 RESILIENT SHEET FLOORING INSTALLATION PROCEDURES

- A. Roll out resilient sheet flooring material with top surface up. Trim off all damage edges. Allow material to relax for twenty four (24) hours.
- B. Trim off all damaged ends
- C. Straight edge and underscribe all side and end seams.
- D. Fold back sheet half-way. Spread adhesive with replaceable blade type notched trowel. Fold sheet into adhesive, allowing for a pattern match.
- E. Roll sheet with 150 pound roller. Hand roll all seams.
- F. Seams
 - 1. Heat weld all seams
 - a. Rout material to accept heat weld roll
 - b. Melt matching welding thread into grooves using heat weld gun.
 - c. Use guide plate on spatula knife when trimming the weld rod the first time. Allow rod to completely cool before any trimming.
 - 2. Chemical weld all seams using Mannington's MLG33 low gloss commercial seam welding for Teknoleum and Mannington high Gloss MHS22 Seam Sealer for Teknoflor™ Timberscapes™ products.

3.5 FINISHING AND CLEANING

- A. Perform the following initial cleaning operations immediately upon completion of resilient flooring.
 - 1. Sweep or vacuum floor thoroughly to remove any loose dirt, dust and other foreign materials.
 - 2. Scrub floor surface using a buffing machine with a 450 or less RPM maximum speed along with a solution of lukewarm water and mild stripper (pH 9 maximum). After scrubbing is complete, wet-vac surface with heavy duty commercial wet vacuum. Rinse floor thoroughly with clean lukewarm water and again wet-vac surface to remove all excess water.
 - 3. Do not scrub floor with steel wool pads, wire brushes, aggressive floor cleaners or cleansers. These products can cause severe scratching and damage to the floor surface.
 - 4. **Refer to Teknoflor™ Maintenance Instructions for more detailed information.**

3.6 PROTECTION

- A. Protect resilient sheet flooring against damage during construction period to comply with resilient sheet flooring manufacture's directions. Keep furniture off the floor for 24 hrs. Do not allow rolling carts to be used on the floor for at least 72 hrs.

WARNING: Vinyl floors are known to develop yellow/orange stains from asphalt roadways, pine oil, iodine, high alkaline detergents with a pH over 12, and quaternary and phenolic detergent disinfectants that are cationic surface active when left on floors over a period of time.

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