



Section 09 64 33

Nydree Laminated Wood Flooring Specification – MRA1585 Adhesive

NOTE TO EDITING ARCHITECT:

THIS SECTION IS A PROPRIETARY SPECIFICATION BASED ON PRODUCTS MANUFACTURED BY:

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PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Section: 03 10 00 - Concrete Forming
- B. Section: 03 30 00 - Cast-in-place Concrete
- C. Section: 06 10 00 - Rough Carpentry

1.2 SUMMARY

- A. Nydree Acrylic Infused Engineered Hardwood Flooring with standard Pedestrian™ 2.0 UV-cured Urethane w/Ceramic particles. (Matte).
- B. Maintenance materials.
- C. Natural Acrylic Infused, stained to match accessories including: Flush Stair Nosing, Stair Tread, Stair Riser, T-Molding, Type A Reducer Strip, Type B Reducer Strip and Type C Flat Strip.
- D. Non-infused, stained to match accessories including: 4" Base Molding and 3/4" Quarter Round.

1.3 ACTION SUBMITTALS

- A. Submit product data in accordance with Section (01 30 00) (01 33 00), including manufacturer's installation and maintenance instructions.
- B. Sustainable Design Submittals:
 - 1. Product Data: Nydree Flooring's Reclaimed products are made up of 22% post-consumer content (the reclaimed wood wear layer)
 - 2. Chain-of-Custody Certificate: FSC Certificate Code: SCS-COC-003343. Trademark License Code: FSC-C100512.
 - 3. Chain-of-Custody Qualification Data: The majority of Nydree products are available as FSC-Certified. The FSC claim for our flooring is FSC Mix 77%
 - 4. Nydree Flooring is FloorScore® Indoor Air Quality Certified. Reg#: SCS-FS-02349.
 - 5. Nydree's wood flooring uses ULEF resins and is compliant with CARB Phase 2, the most recent and stringent CARB regulations. No urea-formaldehyde is used in the manufacturer of Nydree Flooring.
 - 6. MRA1585™, the recommended adhesive for all Nydree Flooring products, contains no solvents. Volatile Organic Compounds (VOC's) is 0 grams/liter, as calculated per SCAQMD 1168.
 - 7. Product Data: ASTM E648 – Test Method for Critical Radiant Flux (Radiant Panel) of Floor.

- C. Shop Drawings: Show floor pattern layout.
- D. Submit three representative samples of Nydree acrylic infused flooring [Width x 9"] in the final color(s) or custom color(s), and species, as selected by the owner or their representative.
- E. For Initial color selection use Nydree Product Spec Sheets that show the color range to be expected.
- F. Mock-up material for verification: Provide material necessary to show the full color range within the flooring selected.

1.4 MAINTENANCE MATERIALS SUBMITTALS

- A. Some flooring material (attic stock) should be set aside in case future repairs are needed.

1.5 QUALITY ASSURANCE

- A. Installer: Shall be experienced in the wood and/or vinyl tile flooring industry and shall have a minimum of five (5) years experience in the installation of similar products.
- B. Verify with the owner or their representative that the flooring is the correct species, color, width, grain, finish (gloss level) and quality (fit) prior to installation. If there is any doubt, do not install the flooring. Contact Nydree Flooring immediately.

1.6 STORAGE, DELIVERY, AND HANDLING

- A. Cartons of wood should be stored in dry, well ventilated storage areas or warehouses. Never store cartons of flooring outdoors. The ideal storage environment should be maintained at 30-55% relative humidity and 60-90°F (15-32°C). Do not store cartons of flooring directly on warehouse floors.
- B. Deliver the flooring to a preferred 60-90°F (15-32°C), 30-55% relative humidity job site in unopened cartons. Protect flooring from exposure to moisture.
- C. Cartons of Nydree Flooring will arrive to the job site wrapped in a polyethylene bag and typically shrink-wrapped to maintain the flooring at its most desirable installation moisture content. If material needs to be inspected prior to flooring installation, carefully remove the shrink-wrap and lift off polybag. After inspecting, put polybag back over pallet of flooring and secure with tape until installation. **DO NOT REMOVE NYDREE ENGINEERED FLOORING FROM THE POLYBAG UNTIL THE DAY OF INSTALLATION. (THE POLYBAG IS DIRECTLY BENEATH THE SHRINK WRAP)**. Flooring that has not been used within a day should be returned to the polybag until ready for installation. No acclimation time is necessary or desired when installing Nydree Flooring. Temperature of material and adhesives should be acclimated to 60-90°F (15-32°C).

1.7 FIELD CONDITIONS

- A. Provide permanent HVAC operation (2 week minimum) and permanent lighting prior to installation.
- B. Maintain room temperature between 60°F (15°C) minimum and 90°F (32°C). The ideal relative humidity for Nydree Flooring installation is between 30% and 55%, prior, during and after the installation. Keep in mind that if the relative humidity drops below 30% for extended periods, the flooring could shrink causing surface splits and gaps.
- C. Do not install flooring until all other significant construction work is complete. Moisture producing activities such as drywall, concrete, masonry, painting and grouting must be complete and cured.

1.8 WARRANTY

- A. Nydree Flooring offers a Limited Lifetime Infused Wear Surface Warranty and Limited Lifetime Structural Defect Warranty. The Pedestrian finish offers a Limited Wear Through Warranty (10 years for commercial applications, 50 years for residential applications).
- B. While alternate adhesives can be used with Nydree Flooring, we strongly recommend the use of Nydree MRA1585 moisture retarding adhesive. MRA1585 offers an Adhesive Bond Limited Lifetime Warranty as well as a 10 year Concrete Subfloor Moisture Protection Limited Warranty.
- C. While alternate maintenance materials can be used with Nydree Flooring, we strongly recommend the use of Nydree Natural Floor Cleaner.
- D. Please contact Nydree Flooring for a complete copy of the warranties above or visit the website at www.nydreeflooring.com.

2.1 PERFORMANCE REQUIREMENTS

- A. **FloorScore®** : Nydree Flooring is FloorScore® Indoor Air Quality Certified.
Reg#: SCS-FS-02349.
- B. **FSC Certification**: If FSC certification is required for a flooring installation (Leed building, etc.), please specify FSC on all drawings and include on all purchase order(s). FSC Certificate Code: SCS-COC-003343. Trademark License Code: FSC-C100512.
- C. **Composite Wood Products**: Nydree's laminated wood flooring uses ULEF resins and is compliant with CARB Phase 2 regulations. Nydree flooring does not utilize any urea formaldehyde resins. The 1/10" (2.54mm) acrylic infused wear layer is laminated to the multi-ply plywood platform using a non-formaldehyde adhesive.
- D. **Fire Ratings**: Maple has a Class I rating when tested in accordance with ASTM E-648. All other species are Class II when tested in accordance with ASTM E-648.

2.2 FACTORY-FINISHED WOOD FLOORING

- A. **Laminated Flooring**: Provide Nydree Engineered Acrylic Infused Hardwood Flooring.
Basis of Design Product: Specified is "Nydree Engineered Acrylic Infused Hardwood Flooring" as manufactured by Nydree Flooring, LLC. Items specified are to establish a standard of quality for design, function, materials, and appearance.

SELECT SPECIES BELOW. FOR EACH SPECIES RETAINED, SELECT APPLICABLE COLOR.

1. Species and Color:

Reclaimed Oak [Natural], [Walnut], [Cashmere Gray]
Rift & Quartered White Oak [Natural], [Cinnamon Toast], [Starry Night], [Centennial].
Walnut [Natural], [Espresso], [Steel Gray]
Plainsawn Ash [Natural], [Vanilla].
Maple [Natural], [Down to Earth], [City Fog], [Wenge], [Ebony], [Latte], [Cider], [After Midnight].
TEXTURE Plainsawn White Oak [Pewter], [Oxford], [Havanna], [Natural], [Sea Mist], [Glacier].
Plainsawn White Oak [Natural], [Slightly Blue], [Pacific Grey], [Atlantic Grey].
Handcrafted Walnut [Ombre], [Bohemian].
Handcrafted Plainsawn White Oak [Sea Salt], [Cold Brew], [Sandbar], [Winter Surf]

NOTE: THE COLORS SHOWN IN RED AND UNDERLINED ABOVE ALSO USE A COLORED SURFACE STAIN OR PAINTED SURFACE.

2. Size:

SELECT FACE WIDTH BELOW.

- a. **Width**: [2 2/3" (67.6mm)], [4" (101.6mm)] and [5 1/4" (133.4mm)].
Handcrafted – 5 1/4" only.
- b. **Thickness**: Nominal Thickness: 7/16", Actual Thickness: 0.430" (10.9mm).

SELECT LENGTH BELOW.

- c. **Length**: [Random 12 inches (305mm) to 47 inches (1194mm)],
Fixed Length. [Select Fixed Length from 14" to 46", 23" or 46" is standard for Herringbone]
Chevron. [2 2/3" x 20.34"], [2 2/3" x 43.34"], [4" x 19"], [4" x 42"], [5 1/4" x 17 3/4"], [5 1/4" x 40 3/4"]

Custom Thickness, Widths and Fixed lengths available upon request (contact customer service).

- 3. **Edge Style**: Micro-bevel.
- 4. **Finish**: Standard Factory-applied Pedestrian 2.0 urethane containing ceramic particles (15

gloss matte). Texture products are 5-10 gloss.

3. ACCESSORY MATERIALS:

A. Wood Flooring Adhesive / Moisture Retarder.

1. It is recommended that all installations use Nydree Flooring MRA1585 Moisture Cured Urethane Adhesive. VOC content is 0 grams/liter. (As calculated per SCAQMD 1168)

Note: Accessories are not available for TEXTURE and Plainsawn White Oak Glacier, but similar colored accessories may be used to match.

B. Naturally Acrylic Infused Reducers and Transition Strips: Natural Acrylic infused and stained to match the species/color of the laminated flooring.

- [Type A Flush Reducer (wood to vinyl)]
- [Type B Bi-Level Reducer (wood to carpet)]
- [Type C Flat Strip (wood to wood)]
- [T-Molding]
- [Flush Bullnose Stair Nosing]
- [Flush Square Stair Nosing]
- Length: 78" Fixed Length Piece.

C. Naturally Acrylic Infused Stair Accessories: Natural Acrylic infused and stained to match the species/color of the laminated flooring.

1. [Stair Tread – Bullnose Profile], [Stair Tread – Square Profile], [3/4" x 8" Riser]

SELECT LENGTH BELOW

- a. **Length:** [3 foot], [6 foot]

D. Non-Infused Accessories: Non-infused, and stained to match the species/color of the laminated flooring.

- [4" Square Wall Base]
- [3/4" Quarter Round]
- Length: 78" Fixed Length Piece.

PART 3 EXECUTION

3.1 EXAMINATION

A. Concrete Subfloors

1. Verify that new slab cure is a minimum of 30 days, preferably 60 days.
2. Verify that the concrete is clean, sound, free from contaminants and dry regardless of concrete age, history or grade level. Slab concrete moisture test results determine the application rate of the MRA1585 adhesive.

Calcium Chloride results up to 15 lbs./1000 sf/24 hrs and in-situ Relative Humidity results up to 85%.
The adhesive is applied with a 3/16" x 5/32" V-Notch trowel at a rate that does not exceed 50 square feet per gallon.

Any Calcium Chloride result **greater** than 15 lbs./1000 sf/24 hrs or any in-situ Relative Humidity result **greater** than 85%.
The adhesive is applied with a 1/4" x 3/16" V-Notch trowel at a rate that does not exceed 35 square feet per gallon.

The protocol for Calcium Chloride testing (ASTM F1869) and in-situ relative humidity testing (ASTM F2170) must be followed precisely for warranty consideration. If both tests are performed, the in-situ RH test is always the qualifying standard. Calcium Chloride Test kits are available from Nydree Flooring. If there is concern over any excessive future subfloor moisture, always use the 1/4" x 3/16" V-Notch trowel application rate.

B. Other Subfloors

1. Plywood Overlays, AdvanTech T&G, Structural Suspended Plywood Subfloors, Existing Wood Flooring, Acoustical Underlayments, Radiant Heated Floors (Hydronic), Terrazzo, Marble Tile, Ceramic Tile, Clay Tile, Existing Vinyl Tile or Sheet Vinyl as well as metal subfloors are all acceptable subfloors. Consult installation instruction guidelines.

C. All Subfloors

1. Verify that the substrate is clean, sound and free of wax, dirt, dust, mold, mildew, loose material, grease, oil, coatings, paint, rust, asphalt cutback, old adhesives (carpet), weak powdery concrete or gypsum, adhesive removers, efflorescence and other surface contaminants that will interfere with the bonding of the adhesive. Scouring using 3 ½ (20 grit) open coat sandpaper can remove most of these materials.
2. Verify that the substrate is flat to within 3/16" in 10 ft. (5mm per 3m). The substrate must be smooth, free from cracks, holes, voids, ridges, projections and other defects impairing performance or appearance.
3. Provide 1/4" (6.4mm) expansion spacing at all vertical obstructions when flooring run is less than 25 feet (7.6m). 1/2" (12.7mm) expansion spacing at all vertical obstructions when flooring run is >25 to 50 feet (7.6 to 15.2m). For runs >50 feet (15.2m) in either the length or width direction allow 1" (25.4mm) expansion spacing at all vertical obstructions. Keep in mind that these expansion spacing recommendations are provided solely to help prevent catastrophic flooring failure in the event of flooding or long periods of relative humidity beyond 55%. If it is expected that the relative humidity in the installation environment never exceeds 55% RH, the correct application of MRA1585 is used based on concrete moisture test results and there is never any wet mopping of the flooring, then an expansion spacing of more than ½" at all vertical obstructions is not necessary.
4. Coordinate work with that of other trades prior to installation so that no discrepancies may exist with installation of doors, frames, saddles, floor drains or any materials that would interfere in any other way.
5. Notify Architect of moisture test results and any unsatisfactory conditions. Do not begin installation until unsatisfactory conditions have been corrected. Beginning of installation means substrate and job site conditions have been accepted as suitable.

3.2 PREPARATION-CONCRETE SUBFLOORS

- A. If a sealer, curing compound, bond breaker, densifier/hardener, prior adhesive or other surface coating has been applied, it must be completely "ground" off by diamond grinding, shot blasting or scarifying. Whenever possible, grind a concrete subfloor to tolerance rather than fill. Sweep and vacuum substrate after scouring or grinding. Concrete substrates should NOT be glassy smooth and reflective. Concrete should have a minimum surface profile of ICRI CSPI-3, similar to that of broom finished concrete.
- B. Use Portland cement-based filler to patch saw-cut control joints (score marks in concrete), cold/construction seams(concrete), cracks, holes, voids, low spots, depressions, grooves, indentations and defects of small areas. Fill level with the surrounding surface. Do not fill or bridge concrete slab expansion joints. These joints must be carried through the flooring surface using an expansion joint covering system. **DO NOT skim coat large areas with extremely thin layers of patching compound.** Sand and/or scour patched areas smooth after material is fully cured according to manufacturer's instructions. Use only quality materials and Portland cement-based patching products. Suggested patching products include: Ardex Feather Finish®, Ardex SD-P®, Bostik UltraFinish™ and Bostik Webcrete® 95 or 98.
- B. If self-leveling underlayments are used, they must dry sufficiently (run moisture test) and dry hard (not dusty/powdery). Self-leveling underlayments must have a compressive strength equal to or greater than 2000 psi.. Gypsum-based self-leveling underlayments must be dry, "above-grade" installations where the gypsum has dried hard (not dusty/powdery), and the Gypsum has a compressive strength equal to or greater than 2000 psi.. Nydree Flooring can not be responsible for the strength, adhesion, or general performance of underlayments as proper compounding and preparation of subsurface are the responsibility of the installer.
Suggested products include:
Concrete up to 15 lbs.Calcium Chloride /85% insitu-RH use Ardex K 15®, and Bostik SL-150™.

Concrete greater than 15 lbs. Calcium Chloride/85% insitu-RH use Ardex K-60™.

3.3 DIRECT BOND INSTALLATION METHOD

NOTE: A direct-bond (flooring is glued to subfloor) is the preferred installation method. Complete installation instructions are included in each carton of Nydree Flooring.

- A. MRA1585 Direct Bond Installation Method.
1. Follow manufacturer's installation instructions.
 2. Depending on concrete slab moisture content use the appropriate V-notched trowel. Spread adhesive either using a 3/16" x 5/32" V-notched trowel, held at a 45 degree angle (15 lbs. or less, 85% in-situ RH or less) or a 1/4" x 3/16" V-notched trowel (>15 lbs. or >85% in-situ RH). 100% of the substrate must be covered with MRA1585 to protect against damage from subfloor moisture. Install flooring immediately into the "wet" adhesive. Do not allow adhesive to remain "open" more than 20 minutes. Do not let adhesive dry to the touch. Occasionally lift a piece of flooring to assure vapor retarding adhesive is achieving at least 85% transfer between the substrate and flooring. If not, use the larger 1/4" x 3/16" V-notch trowel or patch/level the uneven subfloor. Spread adhesive only over surface that can be finished within cure time of adhesive.
 3. Install flooring per manufacturer's instructions.
 4. Roll floor with 150 pound (70kg) roller (100 pound plus 50 pound attachment) 30 minutes after spreading adhesive, but not later than 60 minutes. Be sure to roll in both directions (with plank and across plank).
 5. It is extremely important to remove excess adhesive while still fresh. Use mineral spirits (low odor, no residue) and a white cloth. **Cured adhesive is nearly impossible to remove.**
 6. Install trim, molding and transition strips per manufacturer's installation instructions.

3.4 PROTECTION

- A. Protect finished floor from abuse by other trades using heavy kraft paper, FortiBoard™ Floor Protector Paper (available thru Nydree), or equivalent. Make sure the floor has been cleaned thoroughly (swept, vacuumed and dust mopped) prior to protecting, so that the flooring surface will not be scratched by debris. Avoid covering the installation with protective paper or equivalent for at least 24 hours. Keep traffic out of spaces and areas where flooring is being installed until adhesive has set. Light foot traffic after 10-12 hours. Normal traffic after 24 hours.

3.5 CLEANING

- A. Nydree Flooring Sealed with Pedestrian 2.0 Urethane: Prior to turning the floor over to the owner, It shall be thoroughly cleaned by sweeping, vacuuming or dust mopping to remove debris, followed by cleaning with Nydree Natural Multi-Surface Cleaner.

END OF SECTION 096433

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