

NOBLE DECK™ INSTALLATION INSTRUCTIONS

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1. GENERAL INFORMATION

Noble Deck may be used in areas over occupied space for waterproofing, crack isolation and joint bridging. When used for waterproofing, entire area must be covered and sheets must be seamed (see Section 6). When incorporated into thin-bed installations for ceramic or stone tile, the bonded sheet is typically less than 1/8" thick.

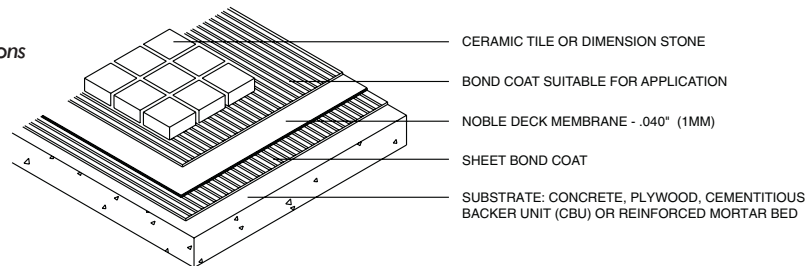
NOTES:

- Install in strict compliance with these instructions, and comply with all applicable ANSI standards, TCNA recommendations and applicable building codes.
- For any procedure not covered by these instructions, contact Noble Company.
- Refer to Noble Deck Product Description for test results and additional product data.

STANDARD:	ANSI A118.10	ANSI A118.12	ASTM C 627
Description:	Load Bearing, Bonded, Waterproof Membranes for Thin-Set Ceramic Tile and Dimension Stone Installations	Crack Isolation Standard: "System Crack Resistance" (Jig Test)	Standard Test Method for Evaluating Ceramic Floor Tile Installation Systems using the Robinson Type Floor Tester
Rating:	<i>Passed</i>	<i>High Performance (> 1/8")</i>	<i>Extra Heavy</i>

Figure 1

Noble Deck System for exterior applications



2. MATERIALS

2.1 PRODUCT: Noble Deck is a thin 1.0mm (.040") bonded, load bearing sheet membrane for waterproofing.

2.1.a COMPOSITION: Noble Deck is a composite sheet made from an alloy of Chlorinated Polyethylene (CPE) with non-woven fabric laminated to both sides. Noble Deck is formulated specifically for exterior applications.

2.2 BOND COAT: Noble Deck should be bonded with NobleBond EXT or an exterior grade latex modified thin-set mortar.

Thin-sets must conform to the appropriate ANSI standards, TCNA Handbook recommendations and manufacturer's directions.

NOTES:

- Job-site mortar mixes must conform to ANSI A108.5 and A118.4 and to latex supplier's instructions.
- Refer to bond coat manufacturer's instructions for cure time. Allow additional time (approximately 50%) when installed over Noble Deck.

2.3 WATERPROOF SEALANT: Use NobleSealant 150 to seam sheets, seal penetrations (i.e., pipes, wire), drains, and terminal edges. Seal preformed corners to sheet (see Figure 9).

2.4 PREFORMED CORNERS:

2.4.a OUTSIDE/DAM CORNERS: Use where the floor meets a vertical component (see Figure 9).

2.4.b INSIDE CORNERS: Install over LAP style corners to prevent potential leaks.

2.5 TOOLS: Normal tile setting tools, scissors or utility knife, rubber hand roller, and linoleum roller (75 - 100 lbs. recommended). Application of NobleSealant 150 requires a commercial grade caulk gun.

3. PLANNING & LAYOUT

3.1 MEMBRANE: Quantity of Noble Deck sheet required should include waste, upturns and seams. Use preformed corners as necessary.

3.1.a SHEET DIMENSION: 6' x 50' = 300 sq. ft. (1.8 m x 15.2 m = 27.9 m²)

3.2 SHEET BOND COAT:

3.2.a NOBLEBOND EXT: Use in wet and dry areas. Porosity and condition of the substrate can affect coverage, but NobleBond EXT will generally provide the following coverage:

If moisture content is < 5 lbs./1000 sq. ft./24 hours, use without EXT Primer: **90 to 110 sq. ft./gallon.**

If moisture content is between 5 - 8 lbs./1000 sq. ft./24 hours, use with EXT Primer: **100 to 120 sq. ft./gallon.**

NOTE: NobleBond EXT allows for more movement than cement based mortar. It also allows tile to be installed immediately after sheet placement as it does not require further curing. Refer to installation instructions on label.

3.2.b LATEX MODIFIED THIN-SET: See manufacturer's coverage rate.

3.2.b.1 Cold Weather Procedure: Consult bond coat manufacturer for safe low-temperature limits and cure times. Noble Company sheet products remain flexible to -25°F.

3.2.b.2 Hot Weather Procedure: Consult bond coat manufacturer for safe high-temperature limits and mixing procedures for these specific conditions.

3.3 NOBLESEALANT 150: A 10.3 oz. tube of NobleSealant 150 seams approximately 40 linear feet.

3.4 LAYOUT: Install sheet so that seams overlap in the direction of the slope (shingled fashion). Use chalk lines to maintain sheet alignment. Sheet may be prefolded and cut to accommodate deck upturns and other requirements per industry guidelines and specifications.

3.4.a DECKS:

3.4.a.1 Concrete: Areas without retaining walls or curbs must have terminal edge details. Flash all walls, curbs and doorways (see Figures 5 through 8).

3.4.a.2 Plywood/Cementitious Backer Unit (CBU) Decks: Wood expands and contracts at a significantly different rate than tile and cementitious setting materials. See section 4.4.b for recommendations over wood decks.

CAUTION: Exterior decks require evaluation by a licensed architect or structural engineer before installation

4. PREPARATION & PROCEDURES

>>>>>**RECOMMENDED:** Test materials and method under job-site conditions to confirm suitability.

4.1 INSPECTION: Determine that the substrate conforms to ANSI A108 standards. Report in writing any deficiencies that might affect performance of the system.

NOTES:

a) Noble Deck will not compensate for structural deficiencies in the substrate.

b) Review all detail drawings, Figures 5 through 8, 10 & 11.

4.2 PROCEDURE: To incorporate Noble Deck into a thin-bed installation, prepare substrate and select bond coat.

4.3 DRAINAGE: Wet areas must have proper slope (typically 1/4" per foot).

CAUTION: All drains must have a suitable membrane clamping device.

NOTE: Comply with current TCNA Detail EJ171 for exterior joint placement.

4.4 SUBSTRATES: Substrate condition for sheet is the same as tile (see TCNA guidelines). Slabs on, above or below grade should be tested for moisture content and pH. Slabs must be flat.

4.4.a DEPRESSIONS: Floors with depressions may cause sheet to span over these depressions. Remedy by filling the depression prior to installation of sheet. Follow appropriate industry guidelines.

4.4.b EXTERIOR APPLICATIONS OVER PLYWOOD: Two methods recommended by Noble Company for exterior applications of Noble Deck over wood decks (see Figures 10 & 11). These methods may be suitable in areas without freeze/thaw conditions. Follow TCNA guidelines. Both methods require a layer of exterior glue plywood, minimum thickness of 19/32" with wood joist spacing 16" O/C.

4.4.b.1 LIMITATIONS:

A. It is important to note that plywood can expand and contract more than the "system" can accommodate.

B. In order to alleviate differential movement, a cementitious backer unit (CBU) or reinforced mortar bed must be installed over plywood decks before installing Noble Deck.

NOTE: CBU must be recommended by the manufacturer for exterior use, and manufacturer's instructions must be followed.

C. Noble Deck can protect only the side on which it is applied. The opposite side and/or edges will absorb moisture, which can adversely affect the installation. If the underside of a wood deck is exposed, the plywood could expand beyond the system's capabilities to accommodate movement. Generally, decks over occupied space are protected from moisture attacking the underside of the deck.

D. Noble Deck cannot accommodate deflection greater than industry guidelines.

E. Tile and setting materials (e.g., CBU's, thin-set, etc.) must be suitable for exterior applications over decks.

4.5 INSTALLER: Must be familiar with Noble Company's current written instructions, TCNA Handbook recommendations and ANSI A108 standards. Contractor must be experienced with installation procedures for Noble Company products or be instructed by a Noble Company representative prior to commencing work.

5. BONDING SHEET TO SUBSTRATE

5.1 INSTALLATION METHODS:

A. Bonded: Directly to substrate.

B. Loose-Laid: (Waterproofing/Cleavage Membrane) under full mortar bed (see TCNA guidelines).

5.2 PREPARATION: Clean and prepare substrate as if thin setting tile without sheet. Bond sheet with either:

5.2.a NOBLEBOND EXT: Refer to NobleBond EXT Installation Instructions.

5.2.b LATEX MODIFIED THIN-SET: Spread thin-set bond coat with a 1/8" x 1/8" "V"-notched trowel. Trowel an area as wide as the sheet and as deep as can be comfortably reached. In order to avoid trapping air under the sheet, trowel mortar in parallel rows across the width or length of the sheet.

NOTES:

a) Variation in trowel size, angle at which trowel is held, mixing ratio or any combination thereof may be necessary to achieve maximum contact. Fine notched trowels increase "skinning" rate.

b) Control high temperature by shading, misting substrate with water, working at night or any combination of these techniques.

c) All ridges of bond coat must be parallel to allow air under sheet to escape when embedding.

5.3 LAY SHEET: Unroll sheet continuously into bond coat before it begins to form "skin".

5.4 EMBED SHEET: Embed Noble Deck into bond coat (flatten all trowel ridges). For horizontal areas, use 75 - 100 lb. roller. Work from center of sheet to edges. Pull roller edge-to-edge in overlapping passes. Start at end of first sheet installed, progressing to area installed last.

Use a small hand roller or straight edge to remove air pockets in areas where larger roller will not fit. Use rubber hand roller or flat side of trowel with heavy pressure on vertical surfaces.

5.5 COVERAGE: Complete coverage of substrate and full penetration of bond coat into the fabric is required. Prior to curing, lift sheet and inspect for full contact. If rows or ridges of bonding agent are seen, membrane has not been properly embedded and additional rolling is necessary.

5.6 DRYING: To prevent outer edges from lifting, curling or drying prematurely, use weight (i.e., tile, mortar, etc.). Screen work area from wind.

5.7 PROTECTION OF SHEET: If not covered by wearing surface, protect the installed sheet from damage and all foot or vehicular traffic (use mortar skim coat, rugs, plywood, etc.).

NOTE: After installation, sheet must be kept clean to enable tile to bond. If necessary, skim coat or clean with vacuum.

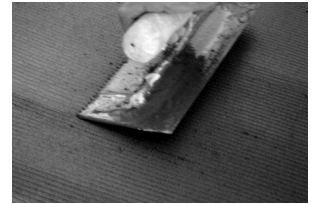


Figure 2

Trowel an area as wide as the sheet (section 5.2.b).



Figure 3

Embed Noble Deck (section 5.4).

6. ADDITIONAL APPLICATIONS

6.1 ISOLATING CRACKS AND CONTROL JOINTS: Refer to current NobleSeal CIS Installation Instructions.

6.2 SEAMING AND JOINING (For Waterproof Installations): When more than one sheet is needed, use NobleSealant 150 to seam sheets together. Apply with a commercial grade caulk gun.

6.2.a Overlap sheets 2" (50mm) minimum.

6.2.a.1 Apply one 3/16" bead about 1/2" from edge of sheet being overlapped.

6.2.a.2 Overlap sheets and flatten with roller or by pressing with trowel.

NOTE: Beads must be continuous without skips or voids.

6.3 FLASHINGS, UPTURNS AND CORNERS

6.3.a Turn sheet up vertical surface 1" to 2" higher than flood plane.

6.3.b Lap corners. Bond overlap and seal inside corner with NobleSealant 150.

6.3.c Bond Preformed Corners to sheet and/or substrate with NobleSealant 150.

6.4 DRAINS: All drains must have clamping ring to secure membrane to drain body. Inspect floor to insure that proper slope has been provided to eliminate ponding of water on top of membrane.

6.4.a Remove strainer and clamping ring.

6.4.b Place Noble Deck over drain body. Press membrane to feel outline of drain opening. Cut drain opening.

6.4.c Carefully punch or notch openings for clamping ring bolts through sheet.

6.4.d Apply bead of NobleSealant 150 on the drain lip under the Noble Deck.

6.4.e Install sheet, see section 5.

6.4.f Reset clamping ring and firmly tighten bolts.

6.4.g Replace strainer and adjust to proper height for tile.



Figure 4

Apply NobleSealant 150 (section 6.2).

7. TILE INSTALLATION

7.1 Set tile in accordance with TCNA Handbook recommendations, ANSI A108 standards and bond coat manufacturer's directions. Complete coverage of fabric by the bond coat is required.

NOTES:

a) For waterproofing applications, test area by flooding before installation of tile or other flooring surface.

b) Refer to bond coat manufacturer's instructions for cure time. Allow additional time (approximately 50%) when installed over Noble Deck.

c) Rapid-curing type of thin-set mortar may be used with approval of mortar manufacturer.

8. WARRANTY

Noble Deck brand CPE membrane is guaranteed for 10 years by Noble Company against failure caused by rotting, cracking and microorganism deterioration when properly installed in tile systems for which its use is recommended by Noble Company. This warranty is limited to replacement of defective material and freight charges to destination only. There are no other expressed or implied warranties, and this warranty is in lieu of any other warranty, including, but not limited to, implied warranties of merchantability and fitness for purpose. Noble Company is not responsible for consequential damages. The remedy of the purchaser set forth herein is exclusive.

NOTE: NOBLE DECK MUST BE INSTALLED IN STRICT COMPLIANCE WITH THESE INSTRUCTIONS, APPLICABLE ANSI STANDARDS, TCNA RECOMMENDATIONS AND ALL APPLICABLE BUILDING CODES.

These suggestions and data are based on information Noble Company believes to be reliable. Users should verify by tests that Noble Deck, as well as these installation methods, are suitable with the products being used in their application. Since specific use, materials and handling are not controlled by Noble Company, this warranty is limited to the replacement of defective Noble Company products. Noble Company disclaims any responsibility for (a) warranties of merchantability and fitness for purpose; (b) verbal recommendations of its representatives; and (c) consequential damages.

LIMITATIONS: Noble Deck is not designed for use as a wearing surface or exposed roof membrane. For any application not specifically detailed in the installation instructions, contact Noble Company.

9. CAD DETAILS

Figure 5. HAND RAIL MOUNTING

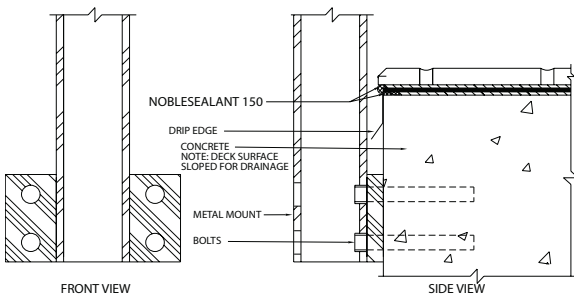


Figure 6. SLIDING DOOR

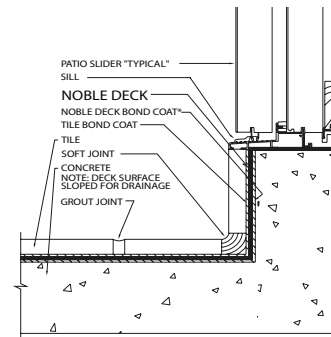


Figure 7. EXTERIOR WALL

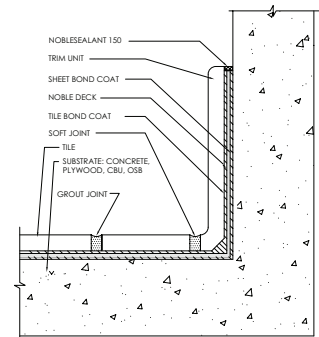


Figure 8. NOBLE DECK POST & EDGE

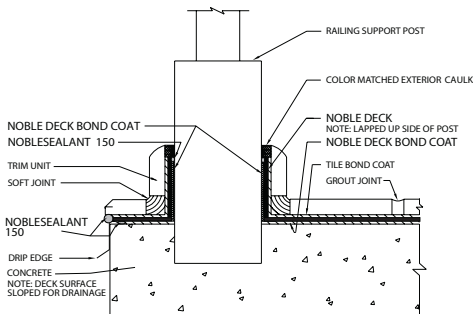


Figure 9. CORNERS

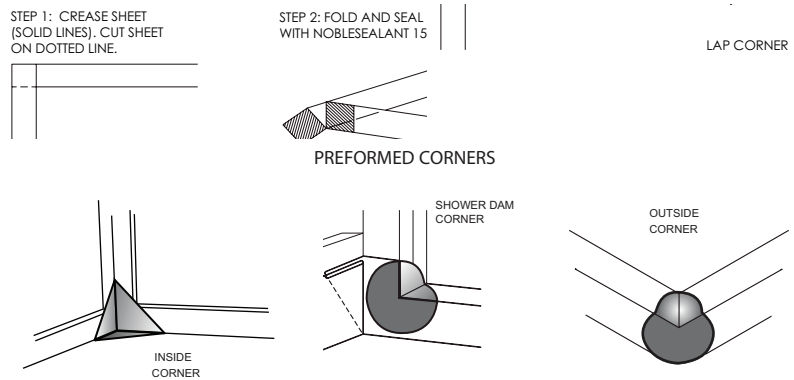


Figure 10. EXTERIOR DECK - WOOD JOIST CONSTRUCTION WITH FULL MORTAR BED

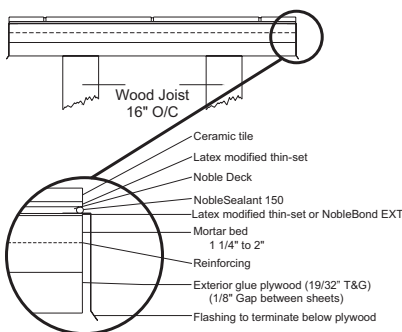
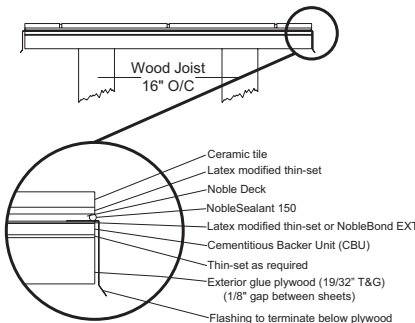


Figure 11. EXTERIOR DECK - WOOD JOIST CONSTRUCTION WITH BACKER BOARD



Form ND INST 04/11
Supersedes 08/09



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