NOBLE EZ INSTALLATION INSTRUCTIONS

INDEX

1. GENERAL INFORMATION

Noble EZ is a composite sheet membrane that is designed to isolate a tile surface from the damaging effects of substrate movement. EZ is a composite sheet membrane made of thermoplastic polymer with a non-woven fabric laminated on both sides. This sheet may be installed by a thin-bed method directly on properly prepared substrates per industry guidelines. Rated "High Performance" (> 1/8") according to ANSI A118.12 for "System Crack Resistance" (jig test).

NOTES:

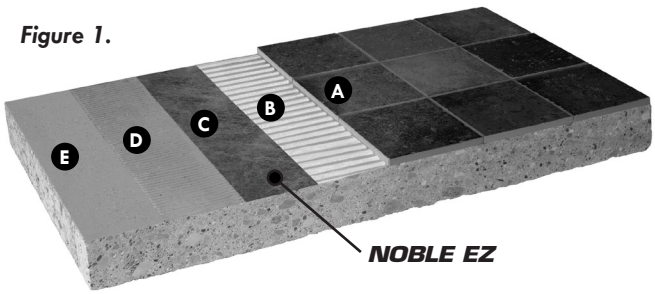
a) EZ is for residential interior applications. For exterior applications, use Noble Deck™.

b) While the primary function of the sheet is crack isolation, this does not preclude normal industry practices or requirements – including joint placement. Use of this system to bridge cracks or construction joints with tile may not be an absolute solution.

c) Install in strict compliance with these instructions, and comply with all applicable ANSI standards, TCNA recommendations and all applicable building codes.

d) For any procedure not covered by these instructions, contact Noble Company.

Figure 1.



A. CERAMIC, TERRAZZO TILE OR DIMENSION STONE
B. BOND COAT APPROPRIATE FOR APPLICATION
C. NOBLE EZ MEMBRANE - 1/32" (.8MM)
D. SHEET BOND COAT - 1/16" - 3/32" (1.6MM - 2.4MM)
E. SUBSTRATE: CONCRETE, PLYWOOD, BACKER BOARD (BB), PRIMED GYPSUM UNDERLAYMENT AND RADIANT HEAT SYSTEMS*

*Noble EZ R-value = 0.8

2. MATERIALS

2.1 PRODUCT: Noble EZ is a thin (.030", 0.8mm) bonded, load bearing sheet membrane.

2.1.a COMPOSITION: Noble EZ is a composite sheet made from a thermoplastic polymer with non-woven fabric laminated to both sides.

2.2 BOND COAT: Noble EZ should be bonded with NobleBond EXT, NobleBond 21 or an acrylic or polymeric modified thin-set mortar including rapid curing types which are recommended by the manufacturer for this application. Bonding agent must conform to the appropriate ANSI A118.4, TCNA Handbook recommendations, and bonding agent manufacturer's directions.

NOTES:

a) Job-site mortar mixes must conform to ANSI A108.5.

b) Refer to bond coat manufacturer's instructions for cure time.

2.3 WATERPROOF SEALANT: For waterproofing applications, use NobleSealant 150 to seam sheets, seal penetrations (i.e., pipes, wire), drains, and terminal edges. Seal preformed corners to sheet.

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

3. PLANNING & LAYOUT

3.1 Install correct width of EZ for either full or partial coverage.

3.1.a FULL COVERAGE: For maximum protection in new construction or renovations, install EZ over the entire area to be tiled. See TCNA F125-FULL.

3.1.b PARTIAL COVERAGE: For isolating cracks or joints, the width of the sheet must equal the tile bridging the crack or joint plus one full tile on either side (i.e. a minimum 3 tiles on the EZ). See section 9 - CAD Details. See TCNA F125-PARTIAL.

NOTES:

a) When tile is installed on diagonal line, minimum sheet width is 2.5 times the diagonal dimension of the tile (i.e. Diagonal width of 12" tile is 17" X 2.5 = 42.5").

b) Minimum width of sheet is 24" regardless of tile size.

1) For areas wider than one sheet width, butt sheets of EZ together.

NOTE: Waterproofing requires a 2" overlap of sheet membrane (refer to section 6.1).

2) Follow TCNA recommendations regarding movement joints in the tile field.

3) It is not necessary to align cracks or control joints in the substrate with the grout joints in the tile field.

c) In extensively cracked areas, it may be more cost effective to remove all the tile and cover the affected area with EZ.

3.1.c SHEET DIMENSIONS AVAILABLE: 3' x 50' (0.9m x 15.2m) roll = 150 sq. ft. (13.9m^2), 2 rolls per carton
6' x 50' (1.8m x 15.2m) roll = 300 sq. ft. (27.9m^2), 1 roll per carton

3.2 SHEET BOND COAT:

3.2.a NOBLEBOND EXT: For wet or dry areas. Porosity and condition of the substrate can affect coverage, but NobleBond EXT will generally provide the following coverage: **100 sq. ft./gallon.**

3.2.b NOBLEBOND 21: Use in dry areas only. NobleBond 21 is a latex-based adhesive for interior horizontal applications. It is not for use in wet areas. NobleBond 21 allows the sheet more movement than cement based mortars. It also allows tile to be installed immediately after sheet placement as it does not require further curing. Refer to NobleBond 21 Installation Instructions on container label. NobleBond 21 will generally provide the following coverage: 150-175 sq.ft./gal.

NOTE: Adhesives allow for more movement than cement based mortars. They also allow tile to be installed immediately after sheet placement, as they do not require further curing. Refer to instructions on label.

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

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

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

3.3 NOBLESEALANT 150 (WATERPROOFING ONLY): A 10.3 oz. tube of NobleSealant 150 seams approximately 40 linear ft.

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4. PREPARATION & PROCEDURES

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

4.1 INSPECTION: Substrate must meet requirements set forth by the TCNA and ANSI A108 and A118 standards. Report in writing any deficiencies that might affect performance of the system.

NOTES:

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

b) Review all detail drawings (see Section 9 - CAD DETAILS).

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

4.3 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. Floor preparation (e.g. leveling, patching) should be done prior to installation of sheet.

4.3.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.

4.3.b RENOVATIONS: Remove cracked tile and one row of adjacent tile (refer to appropriate detail). Inspect and renovate substrate to comply with ANSI standards. Determine that surfaces adjoining cracks are level (see Figure 5).

4.4 INSTALLER: Must be familiar with Noble Company's current written instructions, TCNA Handbook recommendations and ANSI A108 and A118 standards. Contractor must be experienced with installation procedures for Noble Company products or be instructed by a Noble Company representative prior to commencing work.

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5. BONDING SHEET TO SUBSTRATE

5.1 SPREAD BOND COAT: Deposit sufficient amount of appropriate sheet bond coat with correct trowel in an area approximately 6 to 8 sq. ft. (1.8m^2 to 2.1m^2).

NOTE: All ridges of bond coat must be parallel to allow air under sheet to escape when embedding (see Figure 1).

5.1.a NOBLEBOND 21: Follow instructions on container.

5.1.b NOBLEBOND EXT: Follow instructions on container.

5.1.c LATEX MODIFIED THIN-SET MORTAR: Use a trowel that provides full coverate of thin-set (e.g. 1/8"-1/4" (3.2m-6.4m) "V" notched trowel).

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.

5. BONDING SHEET TO SUBSTRATE (CON'T.)

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

c) Do not disturb cementitious thin-set bond coat until it has cured.

5.2 LAY SHEET: Unroll sheet into tacky bonding agent before skin can begin to form. If skinning over occurs, remove original application and re-spread fresh bond coat. Make full contact between sheet & substrate. When more than one sheet is required (width or length), butt edges tightly or overlap and make single cut through overlap to produce a tight butt joint.

5.3 EMBED SHEET: Embed Noble EZ 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.

5.4 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.

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

5.6 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.

6. ADDITIONAL APPLICATIONS

NOTE: Refer to current NobleSeal TS Installation Instructions.

6.1 WATERPROOFING: Provide required slope to drain. Cover entire area plus flashing and allow 2" (50mm) for seaming.

6.2 SEAMING & JOINING: For areas wider or longer than one sheet, use NobleSealant 150 to seam sheets together.

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

6.2.a.1 Apply one 3/16" bead of NobleSealant 150 at 1/2" from the edge of the 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 Preformed Inside or Outside/Dam Corners: Bond to sheet and/or substrate with NobleSealant 150.

7. TILE INSTALLATION

7.1 TILE SETTING: 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.

b) Refer to bond coat manufacturer's instructions for cure time.

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

7.2 ELASTOMERIC GROUT JOINT(S)/(SOFT JOINT(S): Comply with TCNA Handbook recommendation EJ171 and construct a compressible joint at closest grout joint in tile work. Two joints are suggested (one on each side of crack or control joint – approximately parallel to crack). Fill with Type T joint sealant.

NOTE: Elastomeric grout joint(s) must be thoroughly cleaned and free of mortar or debris to function.

8. WARRANTY

Noble EZ brand PVC membrane is guaranteed for 10 years from the date of the original installation 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 the 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. The Noble Company is not responsible for consequential damages. The remedy of the purchaser set forth herein is exclusive.

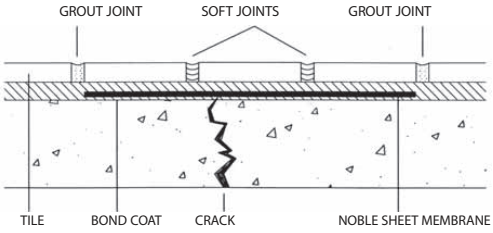
NOTE: NOBLE EZ MUST BE INSTALLED IN STRICT COMPLIANCE WITH THESE INSTRUCTIONS, APPLICABLE ANSI STANDARDS, TCNA RECOMMENDATIONS AND ALL APPLICABLE BUILDING CODES.

These suggestions and data are based on information Noble Company believes to be reliable. Users should verify by tests that Noble EZ, 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 EZ is not designed for use as a wearing surface. EZ is not recommended for commercial or exterior applications. For applications not specifically detailed in the installation instructions, contact Noble Company. Wood subfloors must be clean, dry, and free of sealers, primers, and other substances that could affect bonding of the sheet to the subfloor. Noble EZ will not correct structural deficiencies. Deflection of the subfloor must not exceed industry standards. Installation must follow TCNA recommendations and appropriate industry standards.

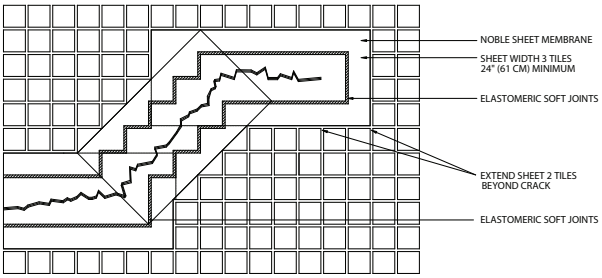
9. CAD DETAILS

FIGURE 2. CRACK ISOLATION - CROSS SECTION



NOTE: Sheet width - 3 tiles minimum (one full tile over crack plus one row adjacent to crack).

FIGURE 3. SHEET PLACEMENT AND SOFT JOINT PLAN FOR MULTIPLE OR WEBBED CRACKS



NOTE: Cracks may branch or change directions. Tile adjoining the tile bridging the crack or joint must be installed completely on the sheet.

FIGURE 4. SUBSTRATE CROSS SECTION

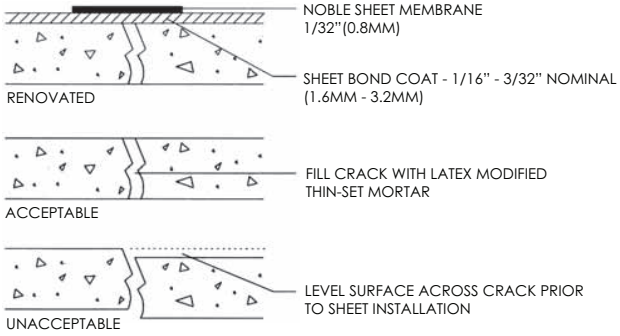


FIGURE 5. JOINT BRIDGING - CONCRETE/WOOD

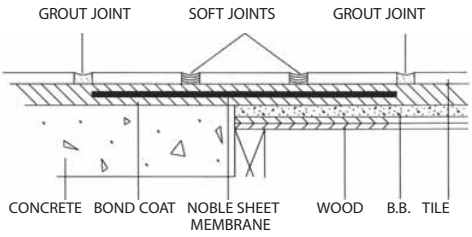
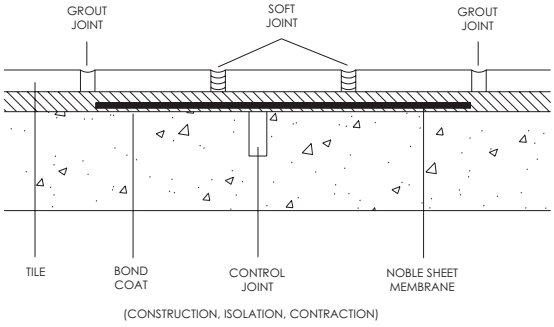


FIGURE 6. JOINT BRIDGING - CROSS SECTION



NOTE: Sheet width - 3 tiles minimum (one full tile over crack plus one row adjacent to crack).

FIGURE 7. INTERIOR WOOD SUBFLOOR 19.2" O/C

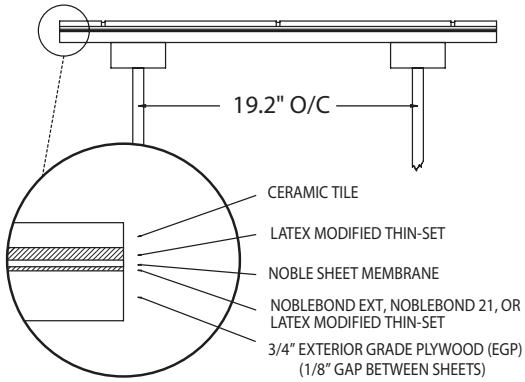


FIGURE 8. INTERIOR WOOD SUBFLOOR 24" O/C

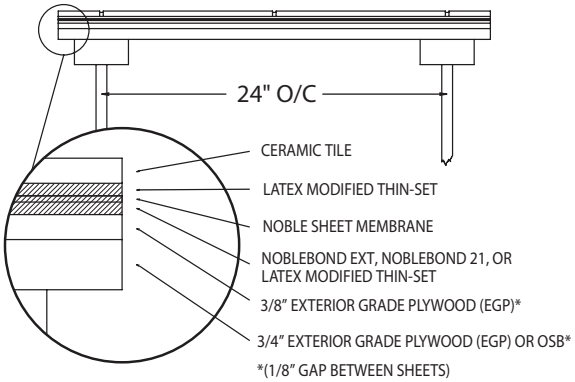
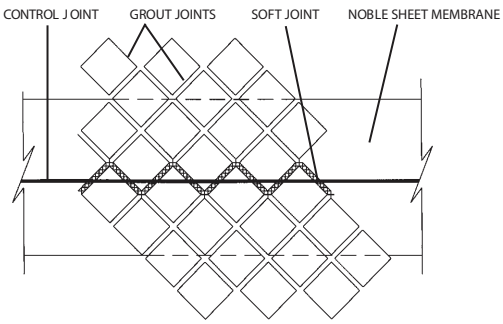


FIGURE 9. JOINT BRIDGING - PLAN VIEW (PATTERN)



NOTE: Minimum sheet width 2-1/2 x diagonal dimension of the tile plus grout joints. Estimate 3 times the tile.

Form EZ INST 08/13
Supersedes 12/05

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