

SECTION 093000 – NOBLE COMPANY COMPREHENSIVE SPECIFICATION

PART 1 - GENERAL

1.1 SUMMARY

Typical Use: Noble Company materials are design specifically for use in wet areas, as crack isolation and uncoupling, and reducing impact sound transmission between levels.

Acceptable Floor Substrates: Concrete, mortar bed, plywood, or tile backer board. Wet areas must be sloped to drain ¼" per foot.

Acceptable Tile Backer Boards For Wall and Ceiling: Cementitious backer board, glass mat water-resistant gypsum board, fiber-cement backer board, fiber-reinforced water-resistant gypsum backer board, cementitious coated extruded foam backer board in accordance with TCNA Handbook.

- A. Section Includes:
 - 1. Loose Laid Full Mortar Bed Installation
 - 2. Direct Bond Thin-Bed Installation
 - 3. Impact Sound Reduction

1.2 RELATED REQUIREMENTS

- A. Section 093013 Ceramic Tiling.
- B. Section 093021 Glass Tiling.
- C. Section 093023 Glass Mosaic Tiling.
- D. Section 093033 Stone Tiling.

1.3 REFERENCE STANDARDS

- A. ANSI A108.01 - General Requirements: Subsurfaces and Preparations by Other Trades.
- B. ANSI A108.13 - Installation of Load Bearing, Bonded, Waterproof Membranes for Thin-Set Ceramic Tile and Dimension Stone.
- C. ANSI A118.4 - American National Standard Specifications for Modified Dry-Set Cement Mortar.
- D. ANSI A118.10 - American National Standard Specifications for Load Bearing, Bonded, Waterproof Membranes for Thin-Set Ceramic Tile and Dimension Stone Installation.
- E. ANSI A118.12 - American National Standard Specifications for Crack Isolation Membranes for Thin-Set Ceramic Tile and Dimensional Stone Installation.
- F. ASTM C365/C365M - Standard Test Method for Flatwise Compressive Properties of Sandwich Cores.

- G. ASTM D2394-17 Standard Test Methods for Simulated Service Testing of Wood and Wood-Based Finish Flooring.
- H. ASTM E96/E96M - Standard Test Methods for Water Vapor Transmission of Materials.
- I. ASTM F710 - Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring.
- J. ASTM F1869 - Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride.
- K. ASTM F2170 - Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes.
- L. 2021 UPC – Uniform Plumbing Code: IAPMO/ANSI UPC 1-2021
- M. ICC-ES report PMG 1065
- N. IAPMO FILE# 7249
- O. TCNA Handbook – Tile Council of North America Handbook for Ceramic, Glass, and Stone Tile Installation.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product. Indicate component materials, dimensions and application details including:
 - 1. Review manufacturer’s installation instructions and requirements and limitations.
 - 2. Waterproofing membrane, waterproofing accessories, curbs, transitions, sealants, and accessories.
 - 3. Preparation and treatment requirements for installation and bonding waterproofing to substrates and product system materials compatibility information.
 - 4. Include standard drawings illustrating manufacturer’s written installation and finishing instructions applicable to project, including details for assembly. Coordinate with Architect for finish material joints, accessories, and plumbing fixture requirements.
 - a. Illustrate shower assembly and how assembly interfaces with other work that forms part of shower system.
 - b. Where standards do not address project conditions, provide shop drawings prepared for project to illustrate proposed construction.

PART 2 – PRODUCTS

2.1 MANUFACTURER

- A. Acceptable Manufacturer: Noble Manufacturing LLC., 7300 Enterprise Drive, Spring Lake, MI 49456 TEL: 800.878.5788 FAX: 231.799.8850 Email: info@noblecompany.com WEB: www.noblecompany.com
- B. Substitutions: Not Permitted.
- C. Requests for substitutions will be considered in accordance with [Document 002113 Instructions to Bidders] [Section 012500].

2.2 FULL-MORTAR BED INSTALLATION

A. Product: Pro-Slope

- 1. Composite made from Expanded Polystyrene with fiber board cutting template; tapered 0.25 inch per foot slope.
- 2. Compressive Deformation Value Test: ASTM D1621: greater than 500 psf.
- 3. Slope 0.25 inch per foot.

****NOTE TO SPECIFIER**** Delete sizes not required.

- 4. Size: 40 by 40 inches multi-slope; center drain.
- 5. Size: 60 by 60 inches multi-slope; center drain.
- 6. Size: 40 by 80 inches tub replacement multi-slope; end drain.
- 7. Size: 20 by 40 single slope tapered extension.
- 8. Size: 30 by 60 single slope tapered extension.

B. Product: Chloraloy

- 1. Sheet Membrane: ASTM D4068, 40 mil composite sheet membrane made from an alloy of non-plasticized Chlorinated Polyethylene (CPE).
- 2. Listed: IAPMO (UPC #4036).
- 3. Water Vapor Permeance: ASTM E96/E96M, Procedure A, maximum 0.070 perms (5.2 ng/Pa/s/m²). Elongation: At least 350% per ASTM D412

D. Product RichPan

- 1. A 0.040 inch (1.0 mm) PVC sheet membrane for full mortar bed installations.
- 2. Listed: IAPMO File #3577

E. Accessories

1. Positive Weep Protector®: patented weep hole protector (U.S. Patent #5,022,430).
 - a. Clear rigid PVC, 0.20 inch thick (5.08 mm).
2. NobleSealant 150
 - a. Synthetic co-polymer rubber.
 - b. Coverage: Approximately 40 linear feet per 10.3 ounce tube (3/16" inch bead).
3. NobleWeld 100
 - a. Shower pan liner cement for use with Chloraloy.
4. Prefabricated waterproof membrane corners:
 - a. CPE Inside and Outside Corners.
 - b. PVC Inside and Outside Corners.
5. Noble Curb Overlay:
 - a. Preformed EPS waterproof curb overlay with acrylic polymer finish.

****NOTE TO SPECIFIER **** Delete sizes not required. Custom sizes are available with minimum quantity of 50 pieces.

- b. #285 Size 3 feet long
- c. #280 Size 4 feet long
- d. #281 Size 5 feet long

2.3 THIN-BED BONDED WATERPROOFING

- A. Composite waterproofing membrane [ValueSeal] [AquaSeal] [NobleSeal TS] [NobleSeal CIS] [AquaBlue] that complies with ANSI A118.10. Include accessories recommended by manufacturer.

****NOTE TO SPECIFIER**** Delete Waterproofing Membrane not used

1. [ValueSeal][AquaSeal]: 16 mil thick polyethylene sheet membranes with polyester laminated to both sides.
 - a. Perm Rating (per ASTM E96 Procedure E) 0.20 perms
 - b. [NobleSeal TS] [NobleSeal CIS]: 30 mil thick composite sheet membranes made from chlorinated polyethylene (CPE) with polyester laminated to both sides.

- c. Perm Rating: 0.15 perms per ASTM E96 Procedure E.
- d. High Performance crack isolation rating per ANSI A118.12 Section 5.4.

B.[AquaBlue]: Walls only. Ready-to-use liquid waterproofing membrane appropriate for interior environments.

- 1. ICC listed
- 2. ANSI A118.10 compliant
- 3. ANSI A118.12 Standard Performance
- 4. Perm Rating: 0.50 perms maximum per ASTM E96 Procedure E.

C. Waterproofing Accessories:

- 1. Prefabricated waterproof membrane corners:
 - a. Noble Company Thin-Line™ Inside and Outside Corners.
 - b. Noble Company CPE Inside and Outside Corners
- 2. Noble Company Thin-Line Pipe Collar.
- 3. Noble Company Thin-Line Mixing Valve Collar.
- 4. NobleSealant.

2.4 PREFORMED SLOPE SHOWER BASES

A. ProBase II: Sloped composite, made from high-strength layer of polypropylene honeycomb and high density expanded polystyrene (EPS).

****NOTE TO SPECIFIER**** Delete style not required.

- 1. Single slope for use with Noble Company Freestyle Linear Drain.
- 2. Multi-slope slope for use with Noble Company Freestyle Thin-Bed Drain.

****NOTE TO SPECIFIER**** Delete sizes not required. Custom sizes are available with minimum quantity of 50 pieces.

- 3. Size: 32 by 60 inches [center drain] [single slope end drain].
- 4. Size: 64 by 64 inches single slope [center drain][end drain].
- 5. Size: 32 by 60 inches multi-slope [center drain][end drain].
- 6. Size: 48 by 48 inches multi-slope [center drain][end drain].
- 7. Size: 72 by 72 inches multi-slope [center drain][end drain].

****NOTE TO SPECIFIER**** Following sizes are available with center drain only.

- 8. Size: 38 by 38 inches multi-slope center drain.
- 9. Size: 48 by 72 inches multi-slope center drain.

B. Performance:

1. Falling Ball Indentation in accordance with ASTM D2394 Section 18. Maximum 0.030-inch indentation with 48-inch drop.
2. Compressive Strength (Bare Honeycomb): ASTM C365, minimum 235 psi.
3. Slope to Drain: Minimum 0.25 inch/ft. from furthest corner of base to drain.

2.5 SLOPED SHOWER BASE SYSTEM ACCESSORIES

A. Noble Solid Curb:

1. Preformed solid EPS waterproof curb with acrylic polymer finish; 5-1/8 by 4-1/2 inches.

****NOTE TO SPECIFIER **** Delete sizes not required. Custom sizes are available with minimum quantity of 50 pieces.

2. #3001 Size 3 feet long
3. #3002 Size 4 feet long
4. #3003 Size 5 feet long
5. #3011 Size 6 feet long

B. Shower Accessories:

1. Noble Niches: Wall shelving made of high-density extruded polystyrene with acrylic polymer finish; 4 inches deep.

****NOTE TO SPECIFIER**** Delete niches not required. Custom sizes are available with minimum quantity of 50 pieces.

- a. #278 Spice Rack 2-internal compartments 6 by 12 inches.
- b. #301 Square 1-internal compartment 12 by 12 inches.
- c. #302 Peaked 1-triangular topped compartment 20 by 12 inches.
- d. #2885 Double Square 2-internal compartments 12 by 12 inches.
- e. #303 Wide Arch Combo One 11-1/4 by 12-inch semi-circle topped compartment above with one 6 by 12-inch rectangle compartment below.
- f. #304 Wide Combo One 12 x 12-inch square compartment above one 6 by 12 inches rectangle compartment below.
- g. #314 Rectangular (adjustable shelf) 20 by 12 inches with one shelf.
- h. #305 Narrow Combo One 12 by 6-inch rectangular compartment above one 6 by 6-inch square compartment below.
- i. #306 Narrow Arch Combo One 11-1/4 by 6-inch semi-circle topped compartment above and one 6 by 6-inch square compartment below.
- j. #308 Soap 1-square compartment 6 by 6 inches.
- k. #2942 31 1/2 Tall (2 adjustable shelves) 1-rectagular compartment 29-1/4 by 12 inches.
- l. #2943 4' Tall (3 adjustable shelves) 1-rectangular compartment 45-3/4 by 12 inches.
- m. #2781 4-Shelf Corner 4-rectangular compartments 14-1/2 by 12 inches.
- n. #2782 2-Shelf Corner 2 rectangular compartments 14-1/2 by 6 inches.

2. Noble Benches: Benches made of high-density EPS with acrylic polymer finish.

****NOTE TO SPECIFIER**** Delete benches not required. Custom sizes are available with minimum quantity of 50 pieces.

- a. #400 Small Triangle Bench 20 H by 22 W by 15-1/2 D inches.
 - b. #402 Large Triangle Bench 20 H by 32-1/2 W by 23 D inches.
 - c. #404 Square Bench 20 H by 11-1/2 W by 11-1/2 D inches.
 - d. #406 Curved Bench 20 H x 15-1/2 R inches.
 - e. #411 Large Rectangular Bench 20 H by 36 W by 15-1/2 D inches.
 - f. #412 Small Rectangular Bench 20 H by 36 W by 11-1/2 D inches.
3. Noble Shelf Bench: High density extruded polystyrene with acrylic polymer finish and aluminum framing for suspension.
 - a. 4 H by 32-5/16 W by 22-7/8 D inches.

2.6 SOUND ISOLATION

- C. Composite sound isolation membrane [NobleSeal SIS] that complies with ANSI A118.10. Can provide High-Performance crack isolation and waterproofing.
 1. Sound Transmission Class (STC): ASTM E90 and ASTM E413. STC 59.
 2. Impact Insulation Class (IIC): ASTM E492 and ASTM E989. IIC 62.
 3. IIC Delta of at least 12 per ASTM E2179.
 4. Crack Isolation / Joint Bridging: "High Performance" rating in the "System Crack Resistance" portion of ANSI A118.12.
 5. Waterproofing: ANSI A118.10.

2.7 SETTING MATERIALS

****NOTE TO SPECIFIER**** Use modified thin-set mortar for steam room applications. Use either bond coat material for other locations.

- A. Bond Coat:
 1. NobleBond EXT.
 2. ANSI A118.4 modified thin-set mortar.

2.8 DRAINS

A. Noble Company Freestyle Linear Drain:

1. Construction: [PVC] [ABS] drain body with 304L stainless steel clamping collar.

****NOTE TO SPECIFIER**** Custom sizes are available with minimum quantity of 50 pieces.

2. Size: [24] [32] [36] [40] [48] [54] [60] inches.
3. Drain Outlet Location [center drain][off-set]
4. Drain Strainer Pattern: [316L stainless steel pyramid] [316L stainless steel slotted] [316L stainless steel wave] [316L stainless steel cross hatch] [316L stainless steel tile top].
5. For proper drain installation and location, reference installation guide for additional information.
6. Minimum Flow Rate: 36.0 gpm.

****NOTE TO SPECIFIER**** For Proper drain installation and location, reference installation guide for additional information.

B. Noble Company Freestyle Thin-Bed Drain:

1. Construction: [PVC] [ABS] drain body with 304L stainless steel clamping ring.
2. Drain piping: 2 inch [PVC] [ABS].
3. Drain Strainer Finish: [Polished Chrome] [Brushed Nickel] [Oil Rubbed Bronze] [Brushed Golden Nickel].
4. Minimum Flow Rate: 8 gpm.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, with installer present, for unacceptable conditions affecting shower base installation. Verify substrate is smooth, solid, flat, free from bond breakers, and acceptable for shower application.
- B. Examine substrate surface tolerance. Verify maximum variation complies with ANSI A108.01 Section 3.0.
- C. Examine rough-in for plumbing piping to verify actual locations of piping connections before shower base installation.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

****NOTE TO SPECIFIER**** Floor slab moisture content may be measured by moisture emission test, by relative humidity test, or both.

- A. Examine, prepare, and test concrete floors for finish flooring installation in accordance with ASTM F710. Perform one [moisture emission test in accordance with ASTM F1869] [relative humidity test in accordance with ASTM F2170] and one alkalinity test for every 2,000 sf.

****NOTE TO SPECIFIER**** Include moisture emission rate or relative humidity requirements, or both. Coordinate with tests specified above.

- B. When tested moisture emission rate exceeds bonding agents specified maximum, consult modified thin-set manufacturer for acceptable mitigation methods and materials.

3.3 INSTALLATION GENERAL

- A. Comply with manufacturers written installation instructions and application indicated on drawings. If printed instructions are not available or do not apply to project conditions, consult manufacturers' technical data or support for specific recommendations before proceeding with installation of system.
- B. Set tile in accordance with TCNA Handbook recommendations, ANSI A108 standards, and bond coat manufacturer's directions.
 - 1. Apply bond coat to substrate. Install waterproofing membrane fully adhered to bond coat.
 - 2. Completely cover waterproofing membrane with bond coat for installing tile finish.

3.4 PROTECTION

- A. Protect installed products until completion of project, and repair or replace damaged products before Substantial Completion using manufacturer recommended procedures only.

END OF SECTION 093000