



GUIDE SPECIFICATION
SECTION 09 30 00 - TILE SETTING MATERIALS AND ACCESSORIES

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Setting materials, grouting materials and accessories including methods of installation for ceramic tile and dimension stone.

1.2 RELATED SECTIONS

EDITOR NOTE: DELETE ANY SECTIONS BELOW NOT RELEVANT TO THIS PROJECT; ADD OTHERS AS REQUIRED.

- A. Section 03 30 00 - Cast-In-Place Concrete.
- B. Section 04 20 00 - Unit Masonry.
- C. Section 05 40 00 - Cold-Formed Metal Framing.
- D. Section 06 11 50 - Sheathing.
- E. Section 09 26 00 - Gypsum Board Systems.
- F. Section 09 30 00 - Tile
- G. Section 09 31 33 – Thin Set Stone Tile
- H. Section 03 41 00 - Precast Structural Concrete
- I. Section 03 53 00 - Concrete Topping
- J. Section 04 43 00 - Stone Masonry
- K. Section 06 10 00 - Rough Carpentry
- L. Section 07 13 00 - Sheet Waterproofing
- M. Section 07 14 00 - Fluid Applied Waterproofing
- N. Section 07 50 00 - Membrane Roofing
- O. Section 07 92 00 - Joint Sealants
- P. Section 09 28 00 - Backing Boards and Underlayments
- Q. Section 09 29 00 - Gypsum Board
- R. Section 10 28 00 - Toilet, Bath, and Laundry Accessories

1.3 REFERENCES

- A. ANSI A108 American National Standard Specifications for Installation of Ceramic Tile.
- B. ANSI A108.01 General Requirements: Subsurface and Preparations by Other Trades.
- C. ANSI A108.02 General Requirements: Materials, Environmental, and Workmanship.
- D. ANSI A108.1A Installation of Ceramic Tile in the Wet Set Method with Portland Cement Mortar.
- E. ANSI A108.1B Installation of Ceramic Tile on a Cured Portland Cement Mortar Setting Bed with Dry-Set or Latex-Portland cement Mortar.
- F. ANSI A108.5 Installation of Ceramic Tile with Dry-Set Portland cement Mortar or Latex-Portland Cement Mortar.
- G. ANSI A108.6 Installation of Ceramic Tile with Chemical Resistant, Water Cleanable Tile Setting and Grouting Epoxy.
- H. ANSI A108.10 Installation of Grout in Tilework.
- I. ANSI A108.11 Specifications for the Installation of Interior Cementitious Backer Units.

- J. ANSI A108.13 Installation of Load Bearing, Bonded, Waterproof Membranes for Thin-Set Ceramic Tile and Dimension Stone.
- K. ANSI A108.14 Installation of Paper-Faced Glass Mosaic Tile.
- L. ANSI A108.15 Alternate Method: Installation of Paper-Faced Glass Mosaic Tile.
- M. ANSI A108.16 Installation of Paper-Faced, Back-Mounted, Edge Mounted, or Clear Film Face-Mounted Glass Mosaic Tile.
- N. ANSI A108.17 Installation of Crack Isolation Membranes.
- O. ANSI A118.1 Specifications for Dry-Set Portland Cement Mortar.
- P. ANSI A118.3 Specifications for Chemical Resistant, Water Cleanable Tile Setting and Grouting Epoxy.
- Q. ANSI A118.4 Specifications for Latex-Portland Cement Mortar.
- R. ANSI A118.6 Specifications for Ceramic Tile Grouts.
- S. ANSI A108.7 Specifications for Polymer Modified Ceramic Tile Grouts.
- T. ANSI A118.9 Specifications for Test Methods and Specifications for Cementitious Backer Units.
- U. ANSI A118.10 Specifications for Load Bearing, Bonded, Waterproof Membranes for Thin-Set Ceramic Tile and Dimension Stone Installations.
- V. ANSI A118.12 Specifications for Crack Isolation Membranes for Thin-Set Ceramic Tile and Dimension Stone Installations.
- W. ANSI A118.13 Specification for Bonded Sound Reduction Membranes for Thin-Set Ceramic Tile Installation.
- X. ANSI A118.15 American National Standard Specification for Improved Modified Dry-Set Cement Mortar.
- Y. TCNA 2020 "Handbook for Ceramic Tile Installation"; Tile Council of North America, Current edition.
- Z. U.S. Product Standard PS-I for Construction and Industrial Plywood.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data for Membranes, Mortars, Grouts, and Adhesives:
 1. Submit manufacturer's product data demonstrating compliance with specified requirements.
 2. Submit manufacturer's instructions for use.
 3. Submit manufacturer's certification that materials are suitable for intended use.
- C. Samples: Submit samples of each type and color of grouting material and tile.
- D. Tile Certificates:
 1. Submit Master Grade Certificates issued and signed by the manufacturer and the Contractor when the tile is shipped. State grade, kind of tile, and identification marks for tile packages.
 2. Submit Certification from tile manufacturer of satisfactory performance of frost proof tile.

1.5 QUALITY ASSURANCE

- A. Mock-ups: Provide mock-up panel using materials specified for final work. Construct mock-up as directed, and of full thickness. Obtain Architect's acceptance of visual qualities of the sample panel.
- B. Installer Qualifications: Engage an experienced installer who has completed tile installations similar in material, design, and extent to that indicated for this Project and with a record of successful in-service performance.

- C Source Limitations for Tile: Obtain each color, grade, finish, type, composition, and variety of tile from one source with resources to provide products from the same production run for each contiguous area of consistent quality in appearance and physical properties without delaying the Work.
- D. Source Limitations for Setting, Grouting, Mortar Bed, Surface Preparation Materials, Self-Leveling underlayment and Waterproofing, Crack Isolation, Sound Reduction Membranes, obtained from a single manufacturer.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Provide heated and dry storage facilities on site.
- B. Deliver and store all materials on site a minimum of 24 hours before usage.
- C. Deliver and store tile and packaged materials in original containers with seals unbroken and labels intact until time of use. Prevent damage to materials such as chipping, breakage, freezing, or excessive heat. Prevent contamination by water, moisture, foreign matter, or other causes.

1.7 PROJECT/SITE CONDITIONS

- A. Maintain ambient and surface temperatures at not less than 60 degrees F during installation of cementitious materials and for 72 hours thereafter. Maintain ambient and surface temperatures between 65 degrees F and 95 degrees F during installation of epoxy setting and grouting materials and for 72 hours thereafter.
- B. Vent temporary heaters to outside to avoid carbon dioxide damage to new tile work.
- C. Provide adequate lighting for good grouting and clean-up.

PART 2 PRODUCTS

2.1 TILE

EDITOR NOTE: PROVIDE TILE SELECTION, TYPE, AND SIZE BELOW

- A. Ceramic tiles shall be _____ manufactured by _____.
- B. Tile: As scheduled.

2.2 TILE SETTING MATERIALS AND ACCESSORIES MANUFACTURER

- A. Basis of Design: SikaTile®
 Sika Corp - 201 Polito Ave., Lyndhurst, NJ
 (800) 933-7452
 www.SikaTile.com
 - 1. Substitutions must be approved.
 - 2.

IN THE ARTICLES BELOW, SELECT THE MATERIALS BASED ON PROJECT REQUIREMENTS. DELETE ANY UNUSED MATERIALS.

2.3 JOINT AND SKIM COAT MATERIALS (For Cementitious Backer Units)

- A. Latex-Portland cement Mortar; ANSI A118.4

1. SikaTile®-325 Secure Set: a fast setting, polymer modified Portland cement thin set mortar designed to provide flexibility, strength, and rapid set times for the installation of porcelain tile, ceramic tile, and natural stone to walls or floors. Suitable for both interior & exterior applications.

2.4 LEVELING MATERIALS

A. Self-Leveling Underlayment Primer:

1. SikaLevel®-01 Primer Plus a one-part, water dispersed, solvent free, acrylic based solution used to prime and seal floor surfaces prior to the application of Sika Level products. Suitable for interior or exterior. Use with concrete, OSB, Plywood substrates.
2. SikaLevel®-02 EZ Primer: Special acrylic primer for use on sound, smooth, and non-porous substrates in interior areas. Applied prior to application of Sika Level products on ceramic tiles, epoxy floors, or vinyl floor coverings.

B. Polymer Modified Portland Cement Mortar Bed Underlayment; ANSI A108.1A, 1B & 1C

1. Where indicated on the Drawings, and elsewhere as required for mortar bed or brown coat as the substrate for tile work shall conform to ANSI A 108

EDITORS NOTE: SELECT THE APPROPRIATE PRODUCT OR PRODCUTS THAT SUIT SUBSTRATE AND LEVELING REQUIREMENTS

1. SikaLevel®-125: a one-component, polymer modified pumpable or manually applied self-leveling underlayment for interior floors. Used for leveling from 1/8 inch to 1 inch in depth. For extended thickness refer to manufacture's current product data sheet.
2. SikaLevel®-225: a one-component cementitious self-leveling pumpable or manually applied underlayment for interior concrete or cementitious substrates. Used for leveling from 1/8 inch to 1-1/4 inch in depth. For extended thickness refer to manufacture's current product data sheet.
3. SikaLevel®-325: a one component, cementitious self-leveling pumpable or manually applied underlayment for interior and exterior cementitious substrates. Used for leveling from 1/8 inch to 1-1/2 inch in depth. For extended thickness refer to manufacturer's current product data sheet.
4. SikaLevel®-425: a one-component dust reduced cementitious self-leveling pumpable or manually applied underlayment for interior concrete or cementitious substrates. Used for leveling from 1/16 inch to 1 inch in depth. For extended thickness refer to manufacture's current product data sheet.
5. SikaLevel®-525 Rapid: a one-component rapid setting cementitious self-leveling pumpable or manually applied underlayment for interior concrete or cementitious floors. Used for leveling from 1/16 inch to 1/2 inch in depth. For extended thickness refer to manufacture's current product data sheet.
6. SikaTile®-050 Slope Rapid: a one component rapid setting, trowel applied, polymer-modified leveling floor underlayment that can receive overlay in 3 to 4 hours. Used for leveling from 1/8 inch to 3 inch in depth.
7. SikaLevel® SkimCoat: a one-component cementitious skim mortar for repairing or reprofiling concrete, approved wood subfloors, and correctly prepared ceramic or quarry tiles before the

installation of leveling products or final floor coverings. Can be installed as a true featheredge as well as filling voids and leveling defects up 1/2 inch in depth.

8. SikaLevel®-025 Patch: a fast drying, self-curing, polymer-modified, cement-based patching compound that rapidly develops high compressive strength. Use for smoothing, leveling, patching, filling cracks, holes, or voids in concrete and approved wood underlayments prior to the installation of floor coverings. From featheredge to 1/2 inch floor coverings can be installed 1 hour after application. Mix with Sika® Latex R to use as an embossing leveler or patch over properly prepared vinyl sheet goods, vinyl composition tile (VCT), cement terrazzo and residual cutback adhesive surfaces.

2.5 SOUND REDUCTION MEMBRANE

A. Bonded Sound Reduction Membrane for Thin-Set Tile and Dimension Stone Installations; ANSI A118.13

1. SikaTile®-225 Fracture Guard PNS: consists of a 40-mil thick rubberized asphalt membrane with a heavy film laminated on the face of the sheet and a siliconized, removable release sheet adhered on the adhesive side.
 - a. Primer: SikaLevel®- 01 Primer Plus: a one-part, water dispersed, solvent free, acrylic based solution. Used to prime and seal floor surfaces prior to the application of SikaTile®-225 Fracture Guard PNS. Suitable for interior or exterior use with concrete, OSB, Plywood substrates.
2. SikaTile®-700 Sound Shield PNS: consists of a 90-mil thick rubberized asphalt membrane with a heavy film laminated on the face of the sheet and a siliconized, removable release sheet adhered on the adhesive side.
 - a. Primer: SikaLevel®- 01 Primer Plus: a one-part, water dispersed, solvent free, acrylic based solution. Used to prime and seal floor surfaces prior to the application of SikaTile®-700 Sound Shield PNS. Suitable for interior or exterior use with concrete, OSB, Plywood substrates.

2.6 CRACK ISOLATION MEMBRANE

A. Crack Isolation Membranes for Thin-Set Ceramic Tile and Dimension Stone Installations; A118.12

1. SikaTile®-200 Fracture Guard Rapid: a low VOC, fast drying, single-component, thin mil, modified latex, elastomeric, mold resistant crack isolation membrane that provides superior elongation to inhibit the transfer of shrinkage and non-structural substrate cracks to the finished ceramic, quarry, porcelain or stone tile finish.
2. SikaTile®-100 Moisture Guard: a fast-drying thin mil, low VOC, fluid-applied elastomeric waterproofing and crack isolation membrane that provides 100% positive-side waterproofing, high strength, and elongation, inhibits reflective cracking, and conforms to any form or irregular shape.
3. SikaTile®-225 Fracture Guard PNS: consists of a 40-mil thick rubberized asphalt membrane with a heavy film laminated on the face of the sheet and a siliconized, removable release sheet adhered on the adhesive side.
 - b. Primer: SikaLevel®- 01 Primer Plus: a one-part, water dispersed, solvent free, acrylic based solution. Used to prime and seal floor surfaces prior to the application of SikaTile®-225

Fracture Guard PNS. Suitable for interior or exterior use with concrete, OSB, Plywood substrates.

2.7 WATERPROOF/CRACK ISOLATION MEMBRANE

- A. Load Bearing, Bonded, Waterproof / Crack Isolation for Thin-Set Ceramic Tile and Dimension Stone Installations; ANSI A118.10/ANSI A118.12
 - 1. SikaTile®-100 Moisture Guard: a fast-drying thin mil, low VOC, fluid-applied elastomeric waterproofing and crack isolation membrane that provides 100% positive-side waterproofing, high strength and elongation, inhibits reflective cracking, and conforms to any form or irregular shape (i.e., base flashings, parapets, drains, trenches, etc.)

2.8 SETTING MATERIALS

- A. Dry-Set Portland Cement Mortar; ANSI A118.1
 - 1. SikaTile®-300 Set: standard grade Portland cement dry thin set mortar, for typical installations of ceramic and quarry tile, pavers and dimensionally stable natural stone on floors and walls, interior and exterior applications.
- B. Modified Dry-Set Cement Mortar; ANSI A118.4 and A118.11
 - 1. SikaTile®-400 LHT Pro Set: polymer modified, Portland cement dry set mortar for installations requiring a Large and Heavy Tile mortar to compensate for irregularities in the substrate or tile. Ideal for large format ceramic, porcelain gauged and irregular stone tile installations. Suitable for wall and floor applications, interior and exterior.
 - 2. SikaTile®-450 LHT Secure Set: One Step Adhesive: one step, polymer modified, Portland cement setting adhesive for installation of extra-large format porcelain and ceramic tiles and natural stone with irregular thicknesses. Can be used for thin or medium bed applications, walls, floors, interior and exterior. Eliminates the need for back buttering.

EDITOR NOTE: THE FOLLOWING DRY-SET CEMENT SETTING MATERIAL ARE FOR USE WHEN IMPROVED ADHESION, REDUCED WATER ABSORPTION AND GREATER BOND STRENGTH ARE NEEDED.

- C. Improved Modified Dry-Set Cement Mortar; ANSI A118.11 and ANSI A118.15
 - 1. SikaTile®-350 Flex Set: a superior grade, flexible, multi-purpose, polymer modified Portland cement dry thin set mortar, for demanding above grade installations that require higher strength, extended adjustability, and longer open time.
 - 2. SikaTile®-500 LHT Lite: a lightweight, flexible, LHT, polymer modified, Portland cement adhesive, with exceptional non slump and non-sag performance for faster installation and excellent workability. Suitable for use on floors and walls, interior and exterior applications, for setting ceramic, mosaic, quarry, thin brick, natural stone, porcelain, and glass tiles.
 - 3. SikaTile®-475 LHT Premium Set: High Performance polymer modified, dry set mortar for use large and heavy tile mortar for installation of gauged porcelain tile, large and heavy ceramic or porcelain tile, and natural stone.

EDITOR NOTE: THE FOLLOWING EPOXY SETTING MATERIAL IS FOR USE WHEN HEAVY OR EXTRA HEAVY PERFORMANCE LEVELS ARE REQUIRED OR WHEN ACID RESISTANCE IS NEEDED.

D. Chemical Resistant, Water Cleanable Tile Setting and Grouting Epoxy; ANSI A118.3

1. SikaTile®-825 Epoxy Grout: 100% solids, non-porous, high strength, epoxy grout and mortar for heavy duty performance in specialty areas that require chemical resistance, stain resistance, shock resistance, and impermeable sanitary performance. Excellent for moisture sensitive and resin backed stones.

2.9 GROUTING MATERIALS

A. Polymer Modified Latex Portland cement Grout with built in anti-microbial; ANSI A118.6 & ANSI A118.7.

1. SikaTile®-800 Sanded Grout: polymer modified Portland cement grout with antimicrobial additives that inhibit growth of mold and mildew and forms a colorfast, dense matrix grout for all types of ceramic and dimensional stone tiles on walls and floors. Joint widths 1/8 inch to 1/2 inch. Exceeds ANSI A118.6. Color # _____.
2. SikaTile®-800 Unsanded Grout: polymer modified Portland Cement grout with antimicrobial additives that inhibit growth of mold and mildew and forms a colorfast, dense matrix grout for all types of ceramic and dimensional stone tiles on walls and floors. Joint widths 1/16 inch to 1/8". Exceeds ANSI A118.6. Color # _____.
3. SikaTile®-815 Secure Grout: a fast setting, polymer modified, color consistent and efflorescence free grout designed for use with all types of ceramic and dimensional stone tiles. Joint widths 1/16 to 1/2 inch. Exceeds ANSI A118.7. Color # _____.
4. SikaTile®-850 Ultima Grout: ready-to-use grout designed for commercial and residential installations with porcelain, ceramic and natural-stone tiles, glass tile, Gauged Porcelain Tile Panels and Slabs (GPT), luxury vinyl tile (LVT), luxury vinyl plank (LVP). Can be used to grout interior and exterior applications as well as intermittent wet conditions such as bathtub surrounds, shower walls and shower floors. Formulated using colored quartz technology, which ensures color consistency, excellent stain resistance, ease of cleanability and improved workability. Used for grout joints from 1/16 inch to 1/2 inch (1.5 to 12 mm). Color # _____.

EDITOR NOTE: THE FOLLOWING EPOXY SETTING MATERIAL IS FOR USE WHEN HEAVY OR EXTRA HEAVY PERFORMANCE LEVELS ARE REQUIRED OR WHEN ACID RESISTANCE IS NEEDED.

B. Water Cleanable Tile Setting and Grouting Epoxy; ANSI A118.3

1. SikaTile®-825 Epoxy Grout: 100% solids, non-porous, high strength, epoxy grout and mortar for heavy duty performance in specialty areas that require chemical resistance, stain resistance, shock resistance, and impermeable sanitary performance. Excellent for moisture sensitive and resin backed stones. Exceeds ANSI A118.3. Color # _____.

2.10 SILICONE CAULK

A. Single component, high performance commercial grade 100% Silicone Caulk; ASTM C920/C794

1. SikaSil® N-Plus: 100% Silicone for use as a caulk in coves, corners, and changes in plane with interior, exterior or submerged applications.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that sub-floor surfaces are smooth and flat within the tolerances specified for that type of work and are ready to receive tile.
- B. Verify that wall surfaces are smooth and flat within the tolerances specified for that type of work, are dust-free, and are ready to receive tile.
- C. Verify that sub-floor surfaces are dust-free and free of substances that could impair bonding of setting materials to sub-floor surfaces.
- D. Cementitious Subfloor Surfaces: Verify that substrates are ready for tiling installation by testing for moisture and alkalinity (pH).
 - 1. Test in accordance with Section 09 0561.
 - 2. Test as Follows:
 - a. Alkalinity (pH): ASTM F710.
 - b. Internal Relative Humidity: ASTM F2170.
 - c. Moisture Vapor Emission: ASTM F1869.
 - 3. Obtain instructions if test results are not within limits recommended by tiling material manufacturer and setting material manufacturer.
 - 4. Follow moisture and alkalinity remediation procedures in Section 09 0561.
- E. Verify that required floor-mounted utilities are in correct location.

3.2 PREPARATION:

- A. Floor Flatness: Install leveling material if necessary, to bring floors to required flatness. Maximum variation from plane:
 - 1. 1/4 inch in 10 feet for installations with a thick mortar bed.
 - 2. 1/8 inch 10 feet for thin-set mortar for all applications that included finish materials that >15 inches on any edge.
 - 3. Leveling, when necessary, is to be accomplished using leveling materials specified in Part 2.

EDITOR NOTE: IF TILE OVER PLYWOOD SUBFLOORS IS REQUIRED, REQUIREMENTS SIMILAR TO THE FOLLOWING MINIMUM STANDARDS SHOULD BE INCLUDED IN THE DIVISION 6 SECTION COVERING PLYWOOD SUBFLOORS.

DELETE THE FOLLOWING PARAGRAPH IF PLYWOOD SUBFLOORS ARE NOT REQUIRED.

- B. Verify that plywood substrates conform to the following:
 - 1. Limit plywood surfaces to interior floor applications only.
 - 2. 2 layers of 5/8 inch (minimum) veneer core plywood, APA grade marked Exterior Grade, Group 1, Type C/C or better and complying with U. S. Product Standard PS-1.
 - 3. Joists shall be a minimum of 16 inches o.c.
 - 4. Assembly: Underlayment placed at right angles to the subfloor and the joints of the two layers staggered. Underlayment screwed 6 inches o.c. around the perimeter and 8 inches o.c. throughout the body of each sheet in each direction. Deflection not greater than 1/360 of the span.
 - 5. Installed with 1/4 inch (6 mm) wide gaps between panels and between panels and walls or other restraining abutments. If installed without a 1/4-inch (6 mm) gap between panels, joints shall be opened by cutting the underlayment to its full depth to provide a gap for expansion. This gap shall remain empty after the installation is complete.
 - 6. Dry and free of contaminants such as sealers, cleaning compounds, coatings, oil, dust, dirt, etc. Contaminated surfaces shall be cleaned by sanding to expose raw wood.

EDITOR NOTE: IF TILE OVER CEMENTITIOUS BACKER UNITS IS REQUIRED, REQUIREMENTS SIMILAR TO THE FOLLOWING MINIMUM STANDARDS SHOULD BE INCLUDED IN THE DIVISION 6 SECTION COVERING EXTERIOR SHEATHING OR THE DIVISION 9 SECTION COVERING INTERIOR TILE BACKER BOARD. DELETE THE FOLLOWING TWO PARAGRAPHS IF CEMENTITIOUS BACKER UNITS ARE NOT REQUIRED.

- C. Verify that framing and plywood sheathing to receive cementitious backer unit conform to the following:
 - 1. Straight, true, of uniform dimension, and properly aligned.
 - 2. Free and clear of any nail heads or screw heads or any other protrusions which could cause the panel to be deflected from true plane.
 - 3. Wood Studs - These must be dry, 3-1/2-inch-deep and no more than 16 inches o.c.
 - 4. Steel Studs: 20 gauge or heavier and spaced not more than 16 inches o.c.
- D. Verify that cementitious backer units are installed in conformance with the following:
 - 1. ANSI A108.11, the TCNA Handbook Methods, and the manufacturer recommendations.
 - 2. Installation temperature: Temperature within the structure is above 55 degrees F.
 - 3. Fasteners: Wood Studs: Use conventional 1-1/2 inch galvanized roofing nails, preferably screw type, spaced a maximum of 8 inches apart; Steel studs: Use 1-1/4 inch S-12(TM), Flat Wafer Head Screws with countersinking ribs and Climaseal(TM) finish spaced a maximum of 8 inches apart.
 - 4. Where two panels abut on a stud: A 3/4-inch round countersunk stainless-steel washer slipped over fasteners in the joint between two panels so that the washer securely catches the edge of both panels.
 - 5. Joints: All horizontal and vertical joints and corners including joints with dissimilar materials: gap approximately 1/8 inch to 3/16 inch.
 - 6. Surface: Plumb and true within 1/8 inch in 8 feet.

3.3 INSTALLATION – GENERAL

- A. Install tile and thresholds and grout in accordance with applicable requirements of ANSI A108.1a through ANSI A108.19 , manufacturer's instructions, and TCNA (HB) recommendations.
- B. Lay tile to pattern indicated. Do not interrupt tile pattern through openings. Lay out tiles to achieve a minimum width of one-half tile from corners and edges.
- C. Cut and fit tile to penetrations through tile, leaving sealant joint space. Form corners and bases neatly. Align floor, base, and wall joints unless otherwise indicated.
- D. Place tile joints uniform in width, subject to variance in tolerance allowed in tile size. Make grout joints without voids, cracks, excess mortar or excess grout, or too little grout.
- E. Form internal angles square and external angles bullnose.
- F. Install non-ceramic trim in accordance with manufacturer's instructions.
- G. Install thresholds where indicated and where noted in this section.
- H. Sound tile after setting. Replace hollow sounding units.
- I. Keep control and expansion joints free of mortar, grout, and adhesive.
- J. Prior to grouting, allow installation to completely cure; minimum of 48 hours.
- K. Grout tile joints unless otherwise indicated.
- L. At changes in plane and tile-to-tile control joints, use tile sealant instead of grout, with either bond breaker tape or backer rod as appropriate to prevent three-sided bonding.
- M. Apply tile sealant to junction of tile and dissimilar materials and junction of dissimilar planes.

3.4 INSTALLATION - FLOORS - THIN-SET METHODS

- A. Over interior concrete substrates, install in accordance with TCNA (HB) Method F113/F113A, latex-Portland cement bond coat, with polymer modified grout, unless otherwise indicated.
 - 1. Use crack isolation membrane under all tile unless other underlayment is indicated.
 - 2. Where waterproofing membrane is indicated, install in accordance with TCNA (HB) Method F122/F122A, with polymer modified grout or epoxy grout as indicated.
 - 3. Where epoxy grout is indicated, install in accordance with TCNA (HB) Method F115/F115A.
 - 4. Where sound reduction membrane is indicated, install in accordance with TCNA (HB) Method F136.
- B. Install tile-to-tile floor movement joints in accordance with TCNA (HB) Method EJ171F.

3.5 INSTALLATION - FLOORS - MORTAR BED METHODS

- A. Over interior concrete substrates, install in accordance with TCNA (HB) Method F111, with cleavage membrane, with polymer modified grout, unless otherwise indicated.
 - 1. Where waterproofing membrane is indicated, install in accordance with TCNA (HB) Method F121, with polymer modified grout or epoxy grout as indicated.
 - 2. Where epoxy grout is indicated, install in accordance with TCNA (HB) Method F114, with cleavage membrane.
- B. Cleavage Membrane: Lap edges and ends.
- C. Waterproofing Membrane: Install as recommended by manufacturer and as specified in the section in which the product is specified.
- D. Mortar Bed Thickness: Maximum 2 inches and minimum 1-1/4 inch, unless otherwise indicated per TCNA (HB) installation method.

3.6 INSTALLATION - SHOWERS AND BATHTUB WALLS

- A. At tiled showers with integrated bonding flange drain, install in accordance with TCNA (HB) Method B422/B422C, with waterproofing membrane, and polymer modified grout or epoxy grout as indicated.

3.7 INSTALLATION - WALL TILE

- A. Over cementitious backer units on studs, install in accordance with TCNA (HB) Method W244, latex-Portland cement bond coat, with polymer modified grout or epoxy grout as indicated..
- B. Over coated glass mat backer board on studs, install in accordance with TCNA (HB) Method W245, latex-Portland cement bond coat, with polymer modified grout or epoxy grout as indicated.
- C. Over interior concrete and masonry install in accordance with TCNA (HB) Method W202, latex-Portland cement bond coat, with polymer modified grout or epoxy grout as indicated.

3.8 INSTALLATION - STONE/MARBLE SILLS

- A. Before setting stone, clean surfaces by removing soil stains and foreign materials. Clean stone thoroughly.
- B. Set stone window sills in full bed of adhesive. Hold adhesive back from exposed edges of joints to allow for pointing with sealant.
- C. Use only adhesives formulated for stone and recommended by their manufacturer for the application indicated.
- D. Dress joints straight and at right angle to face unless otherwise indicated. Finish exposed faces and edges of stone to match approved Samples.
- E. Construction Tolerance: Variation from Level; Do not exceed 1/16 inch in 10 feet.

3.9 TILE AND GROUT CLEANING

- A. Clean tile and grout surfaces as recommended by manufacturer current written instructions.

3.10 PROTECTION

- A. Do not permit traffic over finished floor surface for 4 days after installation.

END OF SECTION

END OF SECTION

Rev. October 2020

Disclaimer: This guide specification is intended for use by a qualified designer. The guide specification is not intended to be used verbatim as an actual specification without appropriate modifications for the specific use intended. The guide specification must be integrated into and coordinated with the procedures of each design firm, and the requirements of a specific project. For additional assistance, visit www.SikaTile.com or contact SikaTile Technical Support 800-933-7452.