SECTION 09 30 00

TILE SETTING MATERIALS AND ACCESSORIES

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\*\* NOTE TO SPECIFIER \*\* Custom Building Products; manufacturers of surface preparation products, setting materials, colored tile grouts and tile and stone care and maintenance products.  
  
This section is based on the products of Custom Building Products, which is located at:  
10400 Pioneer Blvd. Suite 3  
Santa Fe Springs, CA 90670  
Toll Free Tel: 800-282-8786  
Fax: 800-200-7765

Email U.S.: [michael.micalizzi@cbpmail.net](mailto:michael.micalizzi@cbpmail.net?subject=RE:ARCAT%20Spec%20Question%20(09305cus):%20%20)

Email Canada: [John.Alley@cbpmail.net](mailto:John.Alley@cbpmail.net?subject=RE:ARCAT%20Spec%20Question%20(09305cus):%20%20)

Web: <http://www.custombuildingproducts.com/architects.aspx>   
  
 [ [Click Here](https://www.arcat.com/arcatcos/cos40/arc40625.html) ] for additional information.  
  
 Product Data.  
  
Custom manufactures industry-leading tile and stone installation products and each one is part of a proven system. The combination of having precisely the right product and professional technical consulting support makes Custom products the easiest to specify and provides you with the confidence to know your project will go smoothly. Custom's highly experienced team of architectural consultants collaborate with architects, builders, specifiers and contractors to ensure the tile and stone installation specifications meet the needs of your project. Custom offers several installation systems warranties that guarantee your installation will be free from defects for up to a Lifetime, provided our products are used as a complete installation system. For additional information on warranties call us at (800) 282-8786 or view them on [www.custombuildingproducts.com](https://www.custombuildingproducts.com) .  
  
See our SpecWizard: [Click Here](http://www.arcat.com/specwizard/09305cus/index.htm)

1. GENERAL
   1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + 1. Surface Preparation Products: Backerboards, Self-Leveling Underlayments, Waterproofing, Uncoupling and Crack Isolation Membranes, Pre-formed Shower Pan, Sound Reduction Mat Underlayments.
    2. Setting Materials: Architecturally Engineered Mortar Systems, Thin-Set Mortars, Large and Heavy Tile Mortars (formerly Medium Bed), Rapid Setting Mortars, Chemical Resistant Mortars, Ceramic Tile Adhesives.
    3. Colored Tile Grouts: Sanded, Non-Sanded, High-Performance, Single Component, and Epoxy Grouts.
    4. Tile and Stone Care and Maintenance Products.
  1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 03 30 00 - Cast-in-Place Concrete.
    2. Section 07 14 00 - Fluid-Applied Waterproofing.
    3. Section 07 90 00 - Joint Protection.
    4. Section 09 26 00 - Veneer Plastering.
    5. Section 09 28 13 - Cementitious Backing Boards.
    6. Section 09 21 16.23 - Gypsum Board Shaft Wall Assemblies.
    7. Section 09 30 00 - Tiling.
    8. Section 10 28 13.13 - Commercial Toilet Accessories.
  1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. ANSI A108 Series - American National Standards for Installation of Ceramic Tile.
    2. ANSI A137.1 - American National Standard Specifications for Ceramic Tile,
    3. ANSI A118 Series - American National Standards for Installation of Ceramic Tile.
    4. ANSI A136.1 - Organic Adhesives for Installation of Ceramic Tile.
    5. TCNA - Handbook for Ceramic Tile Installation.
    6. TTMAC - Terrazzo, Tile and Marble Association of Canada.
    7. ASTM C 920 - Standard Specification for Elastomeric Joint Sealants.
    8. ASTM C 794 - Standard Test Method for Adhesion-in-Peel of Elastomeric Joint Sealants.
  1. SUBMITTALS
     1. Submit under provisions of Section 01 30 00.
     2. Product Data: Manufacturer's data sheets on each product to be used, including:
        1. Preparation instructions and recommendations.
        2. Storage and handling requirements and recommendations.
        3. Installation methods.

\*\* NOTE TO SPECIFIER \*\* Delete selection samples if colors have already been selected.

* + 1. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
    2. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.
  1. QUALITY ASSURANCE
     1. Manufacturer Qualifications: Company specializing in manufacturing the products of this section with minimum ten years documented experience.
     2. Installer Qualifications: Company specializing in performing the work of this section with minimum five years documented experience.

\*\* NOTE TO SPECIFIER \*\* Consider retaining one or more of following three paragraphs for United States applications only.

* + - 1. Installer shall be a five-star member of the National Tile Contractors Association or a Trowel of Excellence member of the Tile Contractors' Association of America.
      2. Installer's on site supervisor shall hold the International Masonry Institute's Foreman Certification.
      3. Installer shall employ Ceramic Tile Education Foundation Certified Installers or installers recognized by the U.S. Department of Labor as Journeyman Tile Layers.

\*\* NOTE TO SPECIFIER \*\* Consider retaining the following paragraph for Canadian applications only.

* + - 1. Installer shall be a member in good standings with the Terrazzo, Tile and Marble Association of Canada.

\*\* NOTE TO SPECIFIER \*\* Include a mock-up if the project size and/or quality warrant taking such a precaution. The following is one example of how a mock-up on a large project might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.

* + 1. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
       1. Locate mock-ups on site in locations and size directed by Architect.
       2. Finish areas designated by Architect.
       3. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
       4. Refinish mock-up area as required to produce acceptable work.
       5. Retain and maintain mock-ups during construction in undisturbed condition as a standard for judging completed unit of Work.
       6. Obtain Architect's acceptance of mock-ups before start of final unit of Work.
    2. Conduct conference at Project site to comply with requirements of Division 1 Section "Project Meetings."
  1. DELIVERY, STORAGE, AND HANDLING
     1. Deliver and store packaged materials in original containers with seals unbroken and labels intact until time of use. Comply with requirements of ANSI A137.1 for labeling sealed tile packages.
     2. Prevent damage and contamination to materials by water, freezing, foreign matter and other causes.
     3. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.
  2. PROJECT CONDITIONS
     1. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.
     2. Environmental: Install mortar, set and grout tile when surfaces and ambient temperature is minimum 50 degrees F (10 degrees C) and maximum 90 degrees F (32 degrees C). Consult with manufacturer for specific requirements.
     3. Do not install mortar, set or grout tile exterior when inclement weather conditions are expected within 48 hours after work is completed unless properly protected.
     4. Protection: Protect adjacent work surfaces during tile work. Close rooms or spaces to traffic of all types until mortar and grout has set.
     5. Safety: Observe the manufacturer's safety instructions including those pertaining to ventilation.

\*\* NOTE TO SPECIFIER \*\* Custom Building Products offers Installation Systems Warranties that will guarantee your installation will be free from defects for up to a Lifetime, provided our products are used as a complete installation system. Contact manufacturer at 800-282-8786 for warranty details or view warranty requirements on [www.custombuildingproducts.com](http://www.custombuildingproducts.com) .

* 1. WARRANTY
     1. Products shall be provided with the manufacturers standard warranty as follows:

\*\* NOTE TO SPECIFIER \*\* System must be installed to industry and Custom Building Products published specifications and use our full system of specified products. Coordinate with Custom Building Products and edit the following paragraph as required.

* + - 1. Installation Systems Limited Warranty:
         1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Delete the following paragraph if not required. Coordinate with requirements of Division 1 section on spare parts and maintenance products.

* 1. EXTRA MATERIALS
     1. Supply an amount equal to 3 percent of each size, color, and surface finish of tile specified.

1. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer: Custom Building Products, which is located at: 10400 Pioneer Blvd. Suite 3; Santa Fe Springs, CA 90670; Toll Free Tel: 800-282-8786; Fax: 800-200-7765; Email: [request info (jackiel@cbpmail.net)](https://admin.arcat.com/users.pl?action=UserEmail&company=Custom+Building+Products&coid=40625&rep=&fax=800-200-7765&message=RE:%20Spec%20Question%20(09305cus):%20%20&mf=); Web: <http://www.custombuildingproducts.com/architects.aspx>
         1. USA Email: request info [michael.micalizzi@cbpmail.net](mailto:michael.micalizzi@cbpmail.net) .
         2. Canada Email: request info [John.Alley@cbpmail.net](mailto:John.Alley@cbpmail.net) .

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
    2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00.

\*\* NOTE TO SPECIFIER \*\* Select the products required from the following paragraphs and delete those not required.

* 1. MATERIALS
     1. Crack Isolation Membrane for direct-bond ceramic tile installation: Where indicated on the Drawings, and elsewhere as required for isolating the installation from cracking due to minor substrate movement and normal structural deflections as specified in ANSI A108.17 and complying with ANSI A118.12.
        1. Custom Building Products RedGard Waterproofing and Crack Prevention Membrane; Liquid Applied Membrane. For more information visit https://www.custombuildingproducts.com/TDS/TDS-104.pdf
        2. Custom Building Products Crack Buster Pro Crack Prevention Mat Underlayment; Sheet Applied Peel N Stick Membrane. For more information visit https://www.custombuildingproducts.com/TDS/TDS-103.pdf
        3. Custom Building Products Peel & Stick Primer; required use with Crack Buster Pro Crack Prevention Mat Underlayment. For more information visit https://www.custombuildingproducts.com/TDS/TDS-231.pdf
        4. Custom Building Products RedGard Uncoupling Mat; For installations over "young" concrete. For more information visit https://www.custombuildingproducts.com/TDS/TDS-357.pdf
        5. Custom Building Products Custom 9240 Waterproofing and Anti-Fracture Membrane; Fabric Reinforced Liquid Applied membrane. For more information visit https://www.custombuildingproducts.com/TDS/TDS-105.pdf
     2. Waterproofing and Crack Isolation Membrane: Where indicated on the Drawings, and elsewhere as required for thin-set tile installations and complying with ANSI 118.15 for waterproof membranes.
        1. Custom Building Products RedGard Waterproofing and Crack Prevention Membrane. For more information visit https://www.custombuildingproducts.com/TDS/TDS-104.pdf
        2. Custom Building Products RedGard Fabric Membrane. For more information visit https://www.custombuildingproducts.com/TDS/TDS-104.pdf
        3. Custom Building Products Custom 9240 Waterproofing and Anti-Fracture Membrane; fabric reinforced for additional strength. For more information visit https://www.custombuildingproducts.com/TDS/TDS-105.pdf
     3. Waterproofing Membrane (Rapid-Setting): Where indicated on the Drawings, and elsewhere as required for thin-set tile installations and complying with ANSI 118.10 for waterproof membranes.
        1. Custom Building Products RedGard SpeedCoat Waterproofing Membrane; cures quickly in cold, humid, and damp conditions. Requires fabric for crack isolation. For more information visit https://www.custombuildingproducts.com/TDS/TDS-312.pdf
     4. Sound Control/Acoustical Underlayment: Where indicated on the Drawings, and elsewhere as required to be load bearing, shock and vibration resistant and complying with ANSI 118.13.
        1. Custom Building Products EasyMat Tile & Stone Underlayment; Sheet Applied Peel N Stick Membrane; tested in accord with ASTM E-2179. Provides Impact Insulation Class (IIC) reduction up to 18dB for up to extra heavy service usage. For more information visit https://www.custombuildingproducts.com/TDS/TDS-102.pdf
        2. Custom Building Products EasyMat Tile & Stone Underlayment Sheet Applied Peel N Stick and Mortar Adhered Membrane; tested in accord with ASTM E-2179. Provides Impact Insulation Class (IIC) reduction up to 23dB for up to light commercial service usage. For more information visit https://www.custombuildingproducts.com/TDS/TDS-102.pdf
     5. Mortar Bed Installations: Where indicated on the Drawings, and elsewhere as required for mortar bed or brown coat as the substrate for tile work; work to conform to ANSI A108.1.

\*\* NOTE TO SPECIFIER \*\* Select the Custom Float for US applications or Thick Bed for Canadian applications as required from the following paragraphs and delete the one not required.

* + - 1. Custom Building Products CustomFloat Bedding Mortar. For more information visit https://www.custombuildingproducts.com/TDS/TDS-230.pdf
      2. Custom Building Products Thick Bed Bedding Mortar. For more information visit https://www.custombuildingproducts.com/wp-content/uploads/2021/10/TDS-197.pdf
    1. Moisture Vapor and Alkalinity Barrier: Where indicated on the Drawings and elsewhere as required for thin-set tile installations.
       1. CustomTECH TechMVC Moisture Vapor and Alkalinity Barrier; 100% Solids Epoxy Moisture Vapor Control meeting ASTM E96 for ceramic tile and dimension stone flooring installations. For more information visit https://www.custombuildingproducts.com/TDS/TDS-250.pdf
    2. Self-Leveling Underlayment: Where indicated on the Drawings, and elsewhere as required to provide a flat, level surface for direct receipt of tile and other floor coverings on dry, interior installations.
       1. CustomTECH TechLevel XP-1 Self-Leveling Underlayment; 5500 psi compressive strength, per ASTM C 1708. Self-leveling underlayment for interior floor flattening or leveling prior to ceramic tile and dimension stone installation. Applications from feather edge to 2 inches (50 mm) thick. For more information visit https://www.custombuildingproducts.com/TDS/TDS-249.pdf
       2. CustomTECH TechLevel 150 Self-Leveling Underlayment; low prep, 4300 psi compressive strength, per ASTM C 1708. Self-leveling underlayment for interior floor flattening or leveling prior to ceramic tile and dimension stone installation. Applications from feather edge to 1-1/2 inches (38 mm). For more information visit https://www.custombuildingproducts.com/TDS/TDS-248.pdf
       3. CustomTECH TechLevel WSF Fiber Reinforced Self-Leveling Underlayment for Wood Floors; for interior floor flattening or leveling prior to ceramic tile and dimension stone installation. No metal lath required for properly constructed, wood-framed interior plywood and oriented strand board (OSB) subfloors. For more information visit https://www.custombuildingproducts.com/TDS/TDS320.pdf
       4. CustomTECH TechPrime A Acrylic Primer required for surface preparation prior to installing self-leveling underlayment. For more information visit https://www.custombuildingproducts.com/TDS/TDS-251.pdf
    3. Cementitious Backer Units: Complying with ANSI A118.9. Where indicated on the Drawings, and elsewhere as required for floors and walls, interior and/or exterior, wet areas, and dry as recommended substrate for tile, fire rated wall installations, heat shield with UL listing for floors and walls; installation to comply with ANSI A108.11 and manufacturer's installation instructions.
       1. 7/16 inch (11 mm) Custom Building Products WonderBoard Lite Backerboard (Exterior or Interior Floors, Walls, and Countertops). For more information visit https://www.custombuildingproducts.com/TDS/TDS-266.pdf
       2. 1/4 inch (6 mm) Custom Building Products WonderBoard Lite Backerboard (Exterior or Interior Floors and Countertops). For more information visit https://www.custombuildingproducts.com/TDS/TDS-266.pdf
    4. Cementitious Tile Adhesives:
       1. ANSI A118.4, Modified Dry-Set Cement Mortars: Where indicated on the Drawings, and elsewhere as required for setting tile as specified by ANSI A108.5, Dry-Set Portland Cement Mortar or Latex Portland Cement Mortar, over substrates prepared accordingly.
          1. For Installing Large Format Ceramic or Natural Stone Tile (Tile with one edge greater than 15 inches), utilizing a Medium bed Mortar System.

Custom Building Products MegaLite Ultimate Crack Prevention Large Format Tile Mortar. With Shear Bond Strengths greater than 650 psi, per ANSI A118.4 sec. 5.2.4. For wall and floor assemblies where maximum strength is desired. For more information visit https://www.custombuildingproducts.com/TDS/TDS-112.pdf

Custom Building Products ProLite Premium Large Format Tile Mortar. With Shear Bond Strengths greater than 400 psi, per ANSI A118.4 sec. 5.2.4. Excellent non-sag and non-slump qualities for wall application; also floors. For more information visit https://www.custombuildingproducts.com/TDS/TDS-114.pdf

* + - * 1. For Installation of Glass Tile.

\*\* NOTE TO SPECIFIER \*\* Select the Glass Tile Premium for US applications or ProLite for Canadian applications as required from the following paragraphs and delete the one not required

Custom Building Products Glass Tile Premium Thin-Set Mortar, for use with mosaic tiles and large format glass tiles.

Custom Building Products ProLite Thin-Set Mortar, for use with mosaic tiles and large format glass tiles.

* + - * 1. For Maximum LEED Credit for Sustainable Projects.

Custom Building Products MegaLite Ultimate Crack Prevention Large Format Tile Mortar. With Shear Bond Strengths greater than 650 psi, per ANSI A118.4 sec. 5.2.4. For wall and floor assemblies where maximum strength is desired. For more information visit https://www.custombuildingproducts.com/TDS/TDS-112.pdf

Custom Building Products ProLite Premium Large Format Tile Mortar. With Shear Bond Strengths greater than 400 psi, per ANSI A118.4 sec. 5.2.4. Excellent non-sag and non-slump qualities for wall application; also floors. For more information visit https://www.custombuildingproducts.com/TDS/TDS-114.pdf

* + - * 1. For Crack Prevention due to Movement in Substrate

Custom Building Products FlexBond Crack Prevention Mortar With Shear Bond Strengths greater than 400 psi, per ANSI A118.4 sec. 5.2.4. To minimize crack propagation from the substrate through the tile assembly, from cracks up to 1/16 inch wide. For more information visit https://www.custombuildingproducts.com/TDS/TDS-115.pdf

* + - * 1. For Time Sensitive Applications where a Rapid Setting Mortar is needed for early use of tile assembly.

Custom Building Products MegaLite RS Ultimate Rapid Setting Crack Prevention Large Format Tile Mortar. With Shear Bond Strengths greater than 650 psi, per ANSI A118.4 sec. 5.2.4. For applications where maximum strength is required. For more information visit https://www.custombuildingproducts.com/TDS/TDS-120.pdf

Custom Building Products ProLite RS Premium Rapid Setting Large Format Tile. With Shear Bond Strengths greater than 400 psi, per ANSI A118.4 sec. 5.2.4. For installing large format tiles in areas that will be open for use in a short period of time. For more information visit https://www.custombuildingproducts.com/TDS/TDS-121.pdf

* + - 1. ANSI A118.15, Improved Modified Dry-Set Mortars: Where indicated on the Drawings, and elsewhere as required for setting tile as specified by ANSI A108.5, Dry-Set Portland Cement Mortar or Latex Portland Cement Mortar, over substrates prepared accordingly.
         1. For Installing Large Format Ceramic or Natural Stone Tile (Tile with one edge greater than 15 inches), utilizing a Medium bed Mortar System.

Custom Building Products MegaLite Ultimate Crack Prevention Large Format Tile Mortar. With Shear Bond Strengths greater than 650 psi, per ANSI A118.15 sec. 7.2.5. For wall and floor assemblies where maximum strength is desired. For more information visit https://www.custombuildingproducts.com/TDS/TDS-112.pdf

Custom Building Products ProLite Premium Large Format Tile Mortar. With Shear Bond Strengths greater than 400 psi, per ANSI A118.15 sec. 7.2.5 Excellent non-sag and non-slump qualities for wall application; also floors. For more information visit https://www.custombuildingproducts.com/TDS/TDS-114.pdf

* + - * 1. For Installation of Glass Tile.

Custom Building Products Glass Tile Premium Thin-Set Mortar, for use with mosaic tiles and large format glass tiles. Exceeds ANSI A118.4TE, A118.15TE, and A118.11 without need for additives. For more information visit https://www.custombuildingproducts.com/TDS/TDS-200.pdf

* + - * 1. For Maximum LEED Credit for Sustainable Projects.

Custom Building Products MegaLite Ultimate Crack Prevention Large Format Tile Mortar. With Shear Bond Strengths greater than 650 psi, per ANSI A118.15 sec. 7.2.5. For wall and floor assemblies where maximum strength is desired. For more information visit https://www.custombuildingproducts.com/TDS/TDS-112.pdf

Custom Building Products ProLite Premium Large Format Tile Mortar. With Shear Bond Strengths greater than 400 psi, per ANSI A118.15 sec. 7.2.5. Excellent non-sag and non-slump qualities for wall application; also floors. For more information visit https://www.custombuildingproducts.com/TDS/TDS-114.pdf

* + - * 1. For Time Sensitive Applications where a Rapid Setting Mortar is needed for early use of tile assembly.

Custom Building Products MegaLite RS Ultimate Rapid Setting Crack Prevention Large Format Tile Mortar. With Shear Bond Strengths greater than 650 psi, per ANSI A118.15 sec. 7.2.5. For applications where maximum strength is required. For more information visit https://www.custombuildingproducts.com/TDS/TDS-120.pdf

Custom Building Products ProLite RS Premium Rapid Setting Large Format Tile. With Shear Bond Strengths greater than 400 psi, per ANSI A118.15 sec. 7.2.5. For installing large format tiles in areas that will be open for use in a short period of time. For more information visit https://www.custombuildingproducts.com/TDS/TDS-121.pdf

* + 1. Epoxy Tile Adhesives:
       1. ANSI A118.3: Where indicated on the drawings, and elsewhere as required for setting tile as specified by ANSI A108.6 Chemical Resistant, Water-Cleanable Tile Setting and Grouting Epoxy, over substrates prepared accordingly.
          1. Custom Building Products EBM-Lite Premium Epoxy Bonding Mortar - 100% Solids. Excellent non-sag and non-slump properties to support tile in horizontal and vertical applications. Use with moisture sensitive and resin- backed natural stone and tile. For more information visit https://www.custombuildingproducts.com/TDS/TDS-154.pdf
    2. Tile Grout: Where indicated on the Drawings, and elsewhere as required for filling the joints between tiles. Complies with ANSI A108.10 Installation of Grout in tile work.
       1. Polymer-Modified Portland Cement Grout:
          1. Custom Building Products Prism Ultimate Performance Grout, ANSI A118.7, for joints 1/8 inch (3 mm) - 1/2 inch (13 mm). Standard cement grout for wide joints. For more information visit https://www.custombuildingproducts.com/TDS/TDS-128.pdf
          2. Custom Building Products Polyblend Plus Non-Sanded Grout; ANSI A118.6 or joints up to 1/8 inch (3 mm). Standard cement grout for narrow joints. For more information visit https://www.custombuildingproducts.com/TDS/TDS-369.pdf
       2. Chemical Resistant, Water-Cleanable Tile Setting and Grouting Epoxy; ANSI A118.3:
          1. Custom Building Products CEG-Lite 100% Solids Commercial Epoxy Grout. Easy to clean up, non-sagging epoxy grout. Excellent stain and chemical resistance. For more information visit https://www.custombuildingproducts.com/TDS/TDS-101.pdf
          2. Custom Building Products CEG-IG 100% Solids Industrial Grade Epoxy Grout; Formulated for high service environments such as commercial kitchens and food processing facilities. For more information visit https://www.custombuildingproducts.com/TDS/TDS-247.pdf
          3. Custom Building Products Fusion Pro Single Component Grout. Meets the performance requirement of ANSI A118.3 and A118.7. No mixing required and is stain resistant. For more information visit https://www.custombuildingproducts.com/TDS/TDS-242.pdf
    3. Elastomeric Joint Sealant: Provide where indicated on the Drawings, and elsewhere as required at all joints between floors and walls and at joints between tile and dissimilar materials.
       1. Custom Building Products Commercial 100% Silicone Sealant. Conforms to ASTM C 920 for movement joints in heavy traffic areas and ASTM C 794. Available in all colors matching CUSTOM grout colors. For more information visit https://www.custombuildingproducts.com/TDS/TDS-100.pdf
    4. Ceramic and Natural Stone Tile Care and Maintenance: Required for proper maintenance of the completed tile assembly.
       1. Aqua Mix Sealer's Choice Gold: Water-based, penetrating sealer to provide maximum stain protection. Ready for use in as little as 4 hours. For more information visit https://www.custombuildingproducts.com/TDS/TDS-158.pdf
       2. Aqua Mix Enrich N Seal: 100% polymer-solid, penetrating sealer formulated to darken, enrich, and highlight the character and beauty of unsealed natural stone. For more information visit https://www.custombuildingproducts.com/TDS/TDS-166.pdf
       3. Aqua Mix AquaShield Cleaner & Resealer: Daily tile cleaner that renews the sealed surface as it cleans. For more information visit https://www.custombuildingproducts.com/TDS/TDS-313.pdf
       4. Aqua Mix NanoScrub: A mild abrasive cleaner that removes stubborn residue from the surface of the tile. For more information visit https://www.custombuildingproducts.com/TDS/TDS-313.pdf
       5. Aqua Mix Cement Grout Haze Remover: Removes grout residue from freshly installed tile assemblies. For more information visit https://www.custombuildingproducts.com/TDS/TDS-313.pdf
       6. Aqua Mix Heavy-Duty Tile & Grout Cleaner: removes Single Component, pre-mixed, urethane, and light epoxy grout haze. For more information visit https://www.custombuildingproducts.com/TDS/TDS-164.pdf
       7. Aqua Mix Heavy-Duty Tile & Grout Cleaner: Cleans ground in dirt, grease, soap scum, and other organic materials. For more information visit https://www.custombuildingproducts.com/TDS/TDS-164.pdf

1. EXECUTION
   1. EXAMINATION
      1. Examine surfaces, which are to receive tile.
      2. Do not proceed with work until defects or conditions which would adversely affect quality, execution and permanence of finished tile work are corrected (ANSI A108.3).
      3. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
   2. PREPARATION
      1. Clean surfaces thoroughly prior to installation.
      2. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
      3. Condition of surface to receive tile.
         1. Assure that surfaces to receive tile are stable, flat, firm, dry, clean and free of oil, waxes and curing compounds, must meet ANSI A108.1 requirements and be suitable for the specific project usage.
         2. Deflection of substrate not to exceed 1/360th of the span 1/2 inch (12 mm) in 15 feet (4.6 m) in accordance with ANSI A108.01-2.3. Allow for live and impact load as well as dead load weight of tile and setting bed.
         3. Protect adjacent surfaces prior to beginning tile work.

\*\* NOTE TO SPECIFIER \*\* Edit the following paragraphs as required for the projects and delete those not required.

* 1. INSTALLATION
     1. Install in accordance with manufacturer's instructions.
     2. Surface Preparation for Tile and Stone Work.
        1. General:
           1. All supporting surfaces shall be structurally sound, solid, stable, level, plumb, and true to a tolerance in plane of 1/4 inch (6 mm) in 10 feet 0 inch (3 m) for walls, 1/4 inch (6 mm) in 10 feet (3 m) for floors when specified for thin-set method. When installing large format tile with one side greater than 15 inches or 38 cm, the tolerance is reduced to 1/8 inch in 10 feet (3 mm in 3 m). ANSI A108.01 section 2.6.2
           2. Surfaces shall be clean and free of dust, oil, grease paint, tar, wax, curing compound, primer, sealer, form release agent, laitance, loosely bonded topping, loose particles and deleterious substance and debris which may prevent and reduce adhesion.
           3. Mechanically sand and scarify the substrate to completely remove all paint, loosely bonded topping, loose particles and construction debris.
           4. Neutralize any trace of strong acid and alkali.
           5. All substrates shall be dry. The moisture content shall not exceed 50 percent.
           6. Turn off all forced ventilation and radiant heating systems and protect work against drafts during installation and for a period of at least 72 hours, at 70 degrees F / 21 degrees C, after completion. Use indirect auxiliary heaters to maintain the temperatures in the area at the recommended workable level. Vent temporary heater to exterior to prevent damage to tile work from carbon dioxide build-up.
           7. Presswood, particleboard, chipboard, masonite, gypsum floor patching compounds, asbestos board, Luan and similar dimensionally unstable materials are not acceptable substrates.
           8. Before work commences examine the areas to be covered and report any flaw or adverse condition in writing to the architect and to the general contractor. Do not proceed with work until surfaces and conditions comply with the requirements indicated in ANSI A108 specifications.
        2. Concrete and Masonry:
           1. Concrete and Masonry surfaces must comply with ANSI A108.01 Section 3.2.
           2. All concrete substrates shall be at least 28 days old, completely cured and free of hydrostatic conditions, and/or excessive moisture problems.
        3. Plywood:
           1. Plywood subfloor and underlayment must comply with ANSI A108.01 section 3.4.
        4. OSB Panels:
           1. OSB panel is not a suitable surface for direct bonding ceramic tile. OSB is to be coated with Custom Building Products Multi-Surface Bonding Primer or RedGard Waterproofing and Anti-fracture membrane prior to the installation of ceramic tile.
        5. Backerboard Units Installation of Floors, Decks or Countertops:
           1. Cementitious Backerboard shall be installed per the guidelines in ANSI A108.11.
        6. Wall and Ceiling Installation
           1. Wall and Ceiling surfaces must comply with ANSI A108.01 Section 2.5.
        7. Gypsum surfaces:
           1. Gypsum underlayment must have 2000 psi (13.8 MPa) compressive strength and be sealed prior to covering. For areas subject to water exposure, a waterproofing membrane is required.
           2. Gypsum Board shall be installed per the guidelines of ANSI A108.01 Section 3.5.
        8. Steel:
           1. Steel substrates shall be rigid, solidly fixed, dry, well sanded and free of dust, oil, grease, primer and all deleterious substances, which may prevent or diminish the bond. Consult with steel substrate manufacturer for acceptable cleaning methods. Mechanical scarification may result in loss of protective coatings and result in oxidation of steel substrates and is not an acceptable means of preparation.
        9. Tiling over old substrates:
           1. Old cement terrazzo, ceramic tile paver, quarry tile, vinyl and vinyl composition floor coverings other than cushion vinyl shall be sound, solidly in place, flawless, stripped or sanded, clean, free of dust, wax, grease, sealers, soap residue and all other deleterious substances which may prevent or reduce the adhesion. For further details, ANSI A108.01, Section 2.6.2.
     3. Install tile in accordance with appropriate ANSI A108 specifications and the installation material manufacturer's most recently published instructions.

\*\* NOTE TO SPECIFIER \*\* Select the following paragraph for American applications.

* + 1. Expansion joints, control joints, insulation joints, etc., must be located in and filled with appropriate materials.
       1. Joints must be carried through all layers of installation materials including tile, setting bed, mortar bed and reinforcing wire. Refer to TCNA Handbook, EJ171 and ANSI AN-3.8 for details on placement, size and specifications of materials.

\*\* NOTE TO SPECIFIER \*\* Select the following paragraph for Canadian applications.

* + 1. Expansion joints, control joints, insulation joints, etc., must be located in compliance with TTMAC 301MJ and filled with appropriate materials.
       1. Joints must be carried through all layers of installation materials including tile, setting bed, mortar bed and reinforcing wire. Refer to TTMAC Handbook 301MJ and ANSI AN-3.8 for details on placement, size and specifications of materials.
    2. Install grout in accordance with Grout ANSI A108.10 specifications and the installation material manufacturer's most recently published instructions.
    3. Install elastomeric tile sealant around sinks, tubs and showers and where tile meets tile or another surface. Surfaces should be clean, dry and free of all contamination. Maximum joint width and depth should not exceed 1/4 inch (6 mm).

\*\* NOTE TO SPECIFIER \*\* Protective sealers are available for various surfaces. Contact the manufacturer for recommendations. Delete entirely if sealer is not required.

* + 1. Pre-Seal or use grout release on tile when required. Seal grout, stone and unglazed tile with an appropriate sealer 48 - 72 hours after grout application at 70 degrees Fahrenheit (21 degrees C) as needed.
  1. PROTECTION
     1. Protect finished installation under provisions of Section 01 50 00. To avoid damage to finished tile work, schedule floor installations to begin only after all structural work, building enclosure, and overhead finishing work are completed.
     2. Keep all traffic off finished tile floors until they have fully cured. Builder shall provide up to 3/4 inch (19 mm) thick plywood or OSB protection over non-staining, breathable covering to protect floors after installation material has cured. Covering the floor with polyethylene or plywood in direct contact with the floor may adversely affect the curing process of grout and latex/polymer fortified Portland cement mortars.
     3. Due to the slow rate of Portland cement hydration and strength development at low temperatures, protect installations exposed to these conditions from traffic for longer than normal periods. Protect newly installed exterior adhered veneer installations from direct exposure to rain for 7 days at 70 degrees F (21 degrees C). Protection applies to the substrate, the installation of adhesives and joint grouts, post-installation rain and temperature protection until suitable cure, and the storage and handling of the cladding material. Extend period of protection of tile work at lower temperatures, below 60 degrees F (15 degrees C), and at high relative humidity greater than 70 percent relative humidity (R.H.) due to retarded set times of mortar/adhesives. For every 18 degrees F (10 degrees C) below 70 degrees F (21 degrees C) installation materials will take twice as long to cure. Large format tiles require longer curing periods in cooler temperatures. Keep all traffic off the finished work until full cure. Suitable protection is to be included in the scope of work. Each component must reach a proper cure prior to installing the subsequent installation product.
     4. Tent / shade and heat areas that will be subjected to the elements or freezing temperatures during installation and cure periods.
     5. Keep floors installed with epoxy adhesive closed to traffic for 24 hours at 70 degrees F (21 degrees C), and to heavy traffic for 48 hours at 70 degrees F (21 degrees C) unless instructed differently by manufacturer. Use kneeling boards, or equivalent, to walk/work on newly tiled floors.
     6. To Replace or restore work of other trades damaged or soiled by work under this section.
  2. SCHEDULES

\*\* NOTE TO SPECIFIER \*\* The following is an example of specifying installation of products using American TCNA methods for different conditions. These TCNA methods may also be indicated on the Drawings in lieu of specifying here. If specified here complete the locations and TCNA Methods as required. Select one of the following two paragraphs as required and delete the one not required.

* + 1. Install tile using TCNA methods indicated on the Drawings.
    2. Install tile using TCNA methods indicated on the Drawings.
       1. Floor Tile at \_\_\_\_\_\_\_\_\_\_\_: Install in accordance with TCNA method \_\_\_\_\_\_.
       2. Wall Tile at \_\_\_\_\_\_\_\_\_\_\_: Install in accordance with TCNA method \_\_\_\_\_\_.
       3. Tile on Ceilings and Soffits at \_\_\_\_\_\_\_\_\_\_: Install in accordance with TCNA method \_\_\_\_\_\_.
       4. Tile Countertops:Install in accordance with TCNA method \_\_\_\_\_\_.
       5. Tile in Showers and Tub Surrounds: Install in accordance with TCNA method \_\_\_\_\_\_.
       6. Tile in Pools and Water Features: Install in accordance with TCNA method \_\_\_\_\_\_.
       7. Tile in Refrigerated Rooms: Install in accordance with TCNA method \_\_\_\_\_.
       8. Tile in Steam Rooms: Install in accordance with TCNA method \_\_\_\_\_\_.
       9. Tile on Stairs: Install in accordance with TCNA method \_\_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* The following is an example of specifying installation of products using Canadian TCNA methods for different conditions. These TTMAC methods may also be indicated on the Drawings in lieu of specifying here. If specified here complete the locations and TCNA Methods as required. Select one of the following two paragraphs as required and delete the one not required.

* + 1. Install tile using TTMAC methods indicated on the Drawings.
    2. Install tile using TTMAC methods indicated on the Drawings.
       1. Floor Tile at \_\_\_\_\_\_\_\_\_\_\_: Install in accordance with TTMAC method \_\_\_\_\_\_.
       2. Wall Tile at \_\_\_\_\_\_\_\_\_\_\_: Install in accordance with TTMAC method \_\_\_\_\_\_.
       3. Tile on Ceilings and Soffits at \_\_\_\_\_\_\_\_\_\_: Install in accordance with TTMAC method \_\_\_\_\_\_.
       4. Tile Countertops: Install in accordance with TTMAC method \_\_\_\_\_\_.
       5. Tile in Showers and Tub Surrounds: Install in accordance with TTMAC method \_\_\_\_\_\_.
       6. Tile in Pools and Water Features: Install in accordance with TTMAC method \_\_\_\_\_\_.
       7. Tile in Refrigerated Rooms: Install in accordance with TTMAC method \_\_\_\_\_.
       8. Tile in Steam Rooms: Install in accordance with TTMAC method \_\_\_\_\_\_.
       9. Tile on Stairs: Install in accordance with TTMAC method \_\_\_\_\_\_.

END OF SECTION