PART 1. GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Ultracompact floor finishes.
   2. Setting materials and accessories.

B. Related Sections:
   1. Division 01: Administrative, procedural, and temporary work requirements.
   2. Section [ _____ - _____ ] - Concrete substrate.

1.2 REFERENCES

A. American National Standards Institute (ANSI):
   3. A118.4 - Latex-Portland Cement Mortar.
   4. A118.6 - Ceramic Tile Grouts.

B. ASTM International (ASTM):
   1. or Modulus of Rupture of Dimension Stone.

C. GreenGuard Environmental Institute (GEI) - Certification Programs.

1.3 SUBMITTALS

A. Submittals for Review:
   1. Samples:
      a. [3 x 3] [ _____ ] inch ultracompact sheet samples [in specified color] [showing available colors.]
      b. [3/8 x 3/8 x 3] [ _____ ] inch grout samples [in specified color] [showing available colors.]
      c. [3] [ _____ ] inch long joint sealer samples [in specified color] [showing available colors.]

B. Sustainable Design Submittals:
   1. Recycled Content: Certify percentages of post-consumer and pre-consumer recycled content.

C. Closeout Submittals:
   1. Maintenance Data: Include recommended cleaning materials and procedures, and list of materials detrimental to ultracompact sheet.
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1.4 QUALITY ASSURANCE

B. Mockup:
   2. Locate [where directed] [______].
   3. Approved mockup may remain as part of the Work.

1.5 WARRANTY

A. Provide manufacturer’s 10 year warranty against defects in materials and workmanship.

PART 2. PRODUCTS

2.1 MANUFACTURERS

A. Contract Documents are based on products by Cosentino USA, Inc. (www.dekton.com)
B. Substitutions: [Under provisions of Division 01.] [Not permitted.]

2.2 MATERIALS - ULTRACOMPACT SHEET

A. Ultracompact Surfacing Sheet:
   1. Product: Dekton by Cosentino.
   2. Composition: Selected raw materials formed into flat slabs utilizing sinterized particle technology.
   3. Collection: [Solid] [Natural] [Tech.]
   4. Color: [______] [To be selected from manufacturer’s full color range.]
   5. Surface finish: [Polished] [Smooth matte] [Textured matte]
   6. Thickness: [___] mm
   7. Physical characteristics:
      a. Moisture expansion: 0.02 percent average, tested to ASTM C370.
      c. Flexural strength: 10,828 psi average, tested to ASTM C574.
      d. Water absorption: 0.03 percent average, tested to ASTM C373/C373M.
      e. Static coefficient of friction (slip resistance): 0.80 dry and 0.86 wet, tested to ASTM C1028.
      f. Wet dynamic coefficient of friction (DCOF): 0.57 average, tested to ANSI A137.1.
      g. Resistance to wear: 182.2 average wear index, tested to ASTM C501.
      h. Thermal shock resistance: No defects, tested to ASTM C484.
      i. Bond strength: 423 psi average, tested to ASTM C482.
      j. Specific absorption and gravity, tested to ASTM C97/C97M:
         1) Average percent of absorption per weight: 0.02 percent.
         2) Average density: 156 pounds per cubic foot.
      k. Breaking module, tested to ASTM C99/C99M:
         1) Average dry breaking strength: 8128 PSI.
         2) Average wet breaking strength: 7490 PSI.
      l. Flexural strength, tested to ASTM C880:
         1) Average dry flexural strength: 6840 PSI.
         2) Average wet flexural strength: 6205 PSI.
      m. Resistance to compression, tested to ASTM C170/C170M:
         1) Average dry compression: 34,409 PSI.
         2) Average wet compression: 17,823 PSI.
      n. Resistance to abrasion, tested to ASTM C1353/C1353M: 349 average abrasion index.
      o. Resistance to chemical substances; tested to ASTM C650:
1) Acetic acid, 3 percent: No affect.
2) Acetic acid, 10 percent: No affect.
3) Ammonium chloride, 100 g/L: No affect.
4) Citric acid solution, 30 g/L: No affect.
5) Citric acid solution 100 g/L: No affect.
6) Lactic acid, 5 percent: No affect.
7) Phosphoric acid, 3 percent: No affect.
8) Phosphoric acid, 10 percent: No affect.
9) Sulphuric acid, 30 g/L: No affect.
10) Sulphuric acid, 100 g/L: No affect.
11) Chemical pool products: No affect.
12) Sodium hydrochlorite solution, 20 mg/L: No affect.
13) Hydrochloric acid solution, 3 percent: No affect.
14) Hydrochloric acid solution, 18 percent: No affect.
15) Potassium hydroxide, 30 g/L: No affect.
16) Potassium hydroxide, 100 g/L: No affect.

B. Certifications:
   a. GEI Greenguard Certified.
   b. GEI Greenguard Gold Certified.

2.3 MATERIALS - MORTAR

A. Portland Cement Mortar:
   1. Cement: ASTM C150, Type 1, white color.

B. Latex-Portland Cement Mortar: Ultraflex LFT, Ultraflex LFT Rapid, Ultraflex 3, or Keraset mixed with undiluted Keraply by Mapei.

 **** OR ****


2.4 MATERIALS - GROUT

A. Grout:
   1. Keracolor [S] [U] [Sanded] [Unsanded] Grout by Mapei.
   2. Color: [_____] [To be selected from manufacturer’s full color range.]

 **** OR ****

B. Grout:
   1. ANSI A118.6, [sanded.] [unsanded.]
   3. Color: [_____] [To be selected from manufacturer’s full color range.]

2.5 ACCESSORIES

A. Joint Sealer:
   1. Mapesil 100 Percent Silicone Sealant by Mapei.
   2. Color: [_____] [To be selected from manufacturer’s full color range.]

2.6 FABRICATION

A. Cut panels accurately to required shapes and dimensions.
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B. Fabricate with \( \frac{3}{8} \) inch joints.

C. Cut flooring to fit at perimeter and around penetrations with maximum \( \frac{1}{4} \) inch gaps.
PART 3. EXECUTION

3.1 PREPARATION

A. Clean surfaces to receive flooring; remove loose and foreign matter than could interfere with adhesion.

B. Remove ridges and projections. Fill voids and depressions with patching compound compatible with setting materials.

C. Allowable Substrate Tolerances: Maximum 1/4 inch in 10 feet variation in substrate surface.

3.2 INSTALLATION

A. Install flooring in accordance with manufacturer’s instructions.

B. Set flooring in thick set mortar bed in accordance with ANSI A108.1.

C. Lay flooring to pattern furnished by Architect. Do not interrupt pattern through openings.


E. Allow mortar to set for a minimum of 24 hours.

F. Grout joints in accordance with ANSI A108.10; finish smooth and flush.

G. Provide control joints at changes in plane, changes in substrate material, at joints between flooring and adjacent construction, over joints in substrate, and at maximum feet on center. Fill with joint sealer; finish flush and smooth.

3.3 INSTALLATION TOLERANCES

A. Maximum variation from level and plumb: 1/4 inch in 10 feet, noncumulative.

B. Maximum variation in plane between adjacent pieces at joint: Plus or minus 1/16 inch.

C. Maximum variation in joint width: Plus or minus 1/16 inch.

3.4 CLEANING

A. Clean panels in accordance with manufacturer’s instructions.

END OF SECTION