

# PORCELANOSA® FACADES

## **SECTION 074251**

PORCELAIN TILE WALL SYSTEM  
(Porcelanosa – Venis – Urbatek)

### **PART 1 - GENERAL**

#### **1.1 GENERAL PROVISIONS**

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 01 - GENERAL REQUIREMENTS which are hereby made a part of this Section of the Specifications.

#### **1.2 DESCRIPTION OF WORK**

- A. Work Included: Provide labor, materials and equipment necessary to complete the work of this Section, including but not limited to the following:
1. Open-joint rainscreen façade system including porcelain tile cladding, metal supports and insulation.
- B. Related Work: The following items are not specified in this Section:
1. Section 061600 - SHEATHING for sheathing behind facade system.
  2. Section 061600 - SHEATHING for sheathing behind facade system.
  3. Section 072700 - AIR BARRIERS for air barrier behind facade system.
  4. Section 076200 - SHEET METAL FLASHING AND TRIM for copings, flashings, and other sheet metal work not part of facade assemblies.

#### **1.3 SUBMITTALS**

- A. Product Data: Include manufacturer's product specifications, standard details, test results, and general recommendations, as applicable to materials and finishes for each component and for total system assemblies.
- B. Shop Drawings: Show layouts of all wall surfaces, details of corner conditions, joints, system profiles, supports, anchorages, trim, flashings, closures, and special details.
1. Include structural analysis data signed and sealed by the qualified professional engineer responsible for their preparation. Certify system meets wind load and structural loads required by Code in the jurisdiction of the project.
- C. Verification Samples: Submit minimum of four 12x12 inch samples of each color selected, and 12 inch length of aluminum support system, and fasteners proposed for use.
- D. Single Source Responsibility: Submit letter signed by manufacturer indicating that materials furnished under this Section are the single source responsibility of the manufacturer, as described in the Quality Assurance paragraph.

- E. Single Source Responsibility: Submit letter signed by manufacturer indicating that materials furnished under this Section are the single source responsibility of the manufacturer, as described in the Quality Assurance paragraph.
- F. Sustainable Design Documentation: Submit manufacturer's certification of percentage of recycled content in system components.
- G. Extra Stock Materials: Furnish 2% extra stock materials for each primary size of panel. Label, wrap and store where directed.

#### 1.4 QUALITY ASSURANCE

- A. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in the jurisdiction where the Project is located and who is experienced in providing engineering services of the kind indicated.
- B. Installer Qualifications: Engage an experienced installer acceptable to the tile manufacturer who has completed wall system projects similar in material, design, and extent to that indicated for this Project and with a record of successful in-service performance.
- C. Single Source Responsibility: Products shall be manufactured or supplied by one manufacturer, including panels, fasteners, sealants, anchors and accessories.
- D. Mockups: Provide an in-place mock-up of wall system at location on the building acceptable to the Architect. Mock-up shall be a minimum of one bay wide by one bay high. Accepted mock-up may remain in place.
  - 1. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
- E. Preinstallation Conference: Conduct conference at Project site to comply with requirements in Division 01. Review methods and procedures related to wall assemblies.
  - 1. Meet with installers whose work interface with or affects panels, including installers of doors, windows, and louvers.
  - 2. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
  - 3. Review methods and procedures related to installation, including manufacturer's written instructions.
  - 4. Examine support conditions for compliance with requirements, including alignment between and attachment to structural members.
  - 5. Review flashings, special details, wall penetrations, openings, and condition of other construction.
  - 6. Review temporary protection requirements during and after installation.
  - 7. Review procedures for repair of panels damaged after installation.
  - 8. Document proceedings, including corrective measures and actions required, and furnish copy of record to each participant.

## 1.5 DELIVER, STORAGE, AND HANDLING

- A. Deliver system and other components so they will not be damaged or deformed. Package system for protection against damage during transportation or handling.
- B. Exercise care in unloading, storing, and erecting wall system to prevent bending, twisting, and surface damage.
- C. Stack materials on platforms or pallets, covered with tarpaulins or other suitable weathertight and ventilated covering. Store system to ensure dryness. Do not store system in contact with other materials that might cause breakage or staining.

## 1.6 PROJECT CONDITIONS

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit assembly of wall system to be performed according to manufacturers' written instructions and warranty requirements.
- B. Field Measurements: Take field measurements before fabrication to the greatest extent practical. Coordinate fabrication schedule with construction so that work can be performed as quickly as possible without delays due to fabrication and delivery.

## 1.7 WARRANTY

- A. Warranty: Provide manufacturer's standard 10-year warranty for materials.

## **PART 2 - PRODUCTS**

### 2.1 PORCELAIN TILE WALL SYSTEM

- A. Basis-of-Design Manufacturer: Porcelanosa USA, Tel: 201-995-1310 ext 2017. Fax: 201-995-1960. Internet: [www.porcelanosa-usa.com](http://www.porcelanosa-usa.com).
- B. Tile Series: Porcelanosa.
  - 1. Tile Thickness: 13/32 inches (nominal 10 mm) with anti-fragmentation mesh.
  - 2. Tile Weight: 5.15 lbs/sq-ft, 25.20 kg/sq-m.
  - 3. Primary Tile Sizes:
    - a. As indicated on the Drawings.
    - b. 48 x 24 inches, 1200x596 mm.
    - c. 48 x 8 inches, 1200x193 mm.
    - d. 36 by 18 inches, 900x450 mm.
    - e. 36 x 8 inches, 900x220 mm.
    - f. 32 x 32 inches, 800x800 mm.
    - g. 26 by 17 inches, 659x435 mm.
    - h. 24 x 24 inches, 596x596 mm.
  - 4. Finish: As selected from manufacturer's full range.

**C. Tile Series: Venis.**

1. Tile Thickness: 13/32 inches (nominal 10 mm) with anti-fragmentation mesh.
2. Tile Weight: 5.15 lbs/sq-ft, 25.20 kg/sq-m.
3. Primary Tile Sizes:
  - a. As indicated on the Drawings.
  - b. 48 x 24 inches, 1200x596 mm.
  - c. 48 x 8 inches, 1200x193 mm.
  - d. 36 by 18 inches, 900x450 mm.
  - e. 36 x 8 inches, 900x220 mm.
  - f. 32 x 32 inches, 800x800 mm.
  - g. 26 by 17 inches, 659x435 mm.
  - h. 24 x 24 inches, 596x596 mm.
4. Finish: As selected from manufacturer's full range.

**D. Tile Series: Urbatek.**

1. Tile Thickness: 13/32 inches (nominal 10 mm) with anti-fragmentation mesh.
2. Tile Weight: 5.15 lbs/sq-ft, 25.20 kg/sq-m.
3. Primary Tile Sizes:
  - a. As indicated on the Drawings.
  - b. 48 x 24 inches, 1200x596 mm.
  - c. 48 x 8 inches, 1200x193 mm.
  - d. 36 by 18 inches, 900x450 mm.
  - e. 36 x 8 inches, 900x220 mm.
  - f. 32 x 32 inches, 800x800 mm.
  - g. 26 by 17 inches, 659x435 mm.
  - h. 24 x 24 inches, 596x596 mm.
4. Finish: As selected from manufacturer's full range.

**E. Attachment System:**

1. Aluminum Components: Alloy 6063-T5 or 6063-T6, extruded aluminum clips, angles and accessories.
2. Stainless Steel Components: AISI Type 304 stainless steel, powder coated.
3. Isolation Coating: Polyurethane mastic to prevent direct contact between panel and support system.

**F. Certifications:**

1. NFPA 285: Meets or exceeds Conditions of Acceptance of NFPA 285.
2. ICC-ES Evaluation Report: ESR-3343.
3. Fire Performance: Class A, Flame Spread 0, smoke developed 0, ASTM E84, UL 723, ANSI/NFPA 255, UBC No. 8-1.
4. Florida Building Code Approval: FL20391 for Porcelain Panel by PORCELANOSA Grupo – Rainscreen Ventilated Façade System

**G. Tile Properties:**

1. Production method, dry pressed Group B.
2. Water absorption, less than or equal to 0.1 percent (Bla group)
3. Length and width tolerance, plus or minus 0.2 percent.
4. Thickness tolerance, plus or minus 0.5 percent.
5. Straightness of sides, plus or minus 0.2 percent.
6. Squareness, plus or minus 0.2 percent.
7. Surface flatness, plus or minus 0.5 percent.
8. Apparent density, 2,4 g/cm<sup>3</sup>.
9. Reaction to fire, A1 no contribution to fire.
10. Bending strength,  $\geq 35$  Mpa.
11. Breaking load,  $\geq 1300$  N.
12. Frost resistance complies.
13. Dimensional characteristics, complies.

**H. Mineral Wool Insulation:**

1. Type: ASTM C 612, Type IVB; with maximum flame-spread and smoke-developed indexes of 15 and zero, respectively, per ASTM E 84; passing ASTM E 136 for combustion characteristics.
2. Density: Nominal density of 4 lb/cu. ft. Types IA and IB, thermal resistivity of 4 deg F x h x sq. ft./Btu x in. at 75 deg F minimum.
3. Fiber Color: Natural, except darkened where visible through joints in cladding.

**PART 3 - EXECUTION**

**3.1 EXAMINATION**

- A.** Examine substrates and conditions, with Installer present, for compliance with requirements indicated for conditions affecting performance of the wall system. Do not proceed with wall system installation until unsatisfactory conditions have been corrected.

**3.2 INSTALLATION**

- A.** General: Comply with system manufacturer's written instructions and recommendations for installation, as applicable to project conditions and supporting substrates. Anchor system and other components of the Work securely in place, with provisions for thermal and structural movement.
1. Install system with concealed fasteners.
  2. Install in configuration as indicated on Drawings.
  3. Shim and align system units within installed tolerance to comply with manufacturer's requirements and approved submittals.
  4. Replace damaged or defaced tiles prior to Substantial Completion.
- B.** Cleaning: On completion of system installation, clean finished surfaces as recommended by manufacturer.

- END OF SECTION -