



SECTION 07 46 33  
METEON® PURA PHENOLIC WALL PLANKS

**PART 1 - GENERAL**

1.1 SECTION INCLUDES

A. Exterior solid phenolic cladding plank system and accessories as required for a complete drained and back-ventilated rainscreen system.

1. Wall planks.
2. Fascia.
3. Horizontal soffits.
4. Storefront planks.

B. Interior solid phenolic wall lining planks.

1.2 RELATED SECTIONS

A. Section 05 50 00 - Metal Fabrications; additional sub framing, Z girts to accommodate exterior insulation is not in the scope of Section 07 42 33.

B. Section 07 20 00 – Thermal Protection; exterior insulation, if required for NFPA 285 compliance, is not included in the scope of Section 07 42 33.

C. Section 07 25 00- Weather Barriers, is not included in the scope of section 07 42 33

D. Section 08 41 00 - Entrances and Storefronts.

E. Section 08 44 12 - Metal Framed Curtain Wall.

F. Section 09 29 00 - Gypsum Board.

1.3 REFERENCES

A. ASTM International (ASTM):

1. ASTM B 117 - Standard Practice for Operating Salt Spray (Fog) Apparatus.
2. ASTM D 635 - Standard Test Method for Small Scale Burning.
3. ASTM D 1929 - Standard Test Method for Ignition Temperature.
4. ASTM D 2244 - Standard Practice for Calculation of Color Tolerances and Color Differences from Instrumentally Measured Color Coordinates.
5. ASTM D 2247 - Standard Practice for Testing Water Resistance of Coatings in 100% Relative Humidity.
6. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
7. ASTM E 119 - Standard Test Method for Fire Rated or Fire Resistive Construction.
8. ASTM E 330 - Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors Under the Influence of Wind Loads.

B. European Standards (EN):

1. EN 438-2 - Decorative High Pressure Laminate (HPL) Sheets Based on Thermosetting Resins - Determination of Properties.
2. EN 12524 - Building Materials and Products, Hygrothermal Properties, Tabulated Design Values.

C. International Organization for Standardization (ISO):

1. ISO 105 A02-93 - Tests for Color Fastness -- Part A02: Grey scale for assessing change in color.
2. ISO 178 - Determination of Flexural Properties.
3. ISO 527-3 - Determination of Tensile Properties.
4. ISO 846 - Evaluation of the Action of Organisms.

D. National Fire Protection Association (NFPA):

1. NFPA 268 - Standard Test Method for Determining Ignitibility of Exterior Wall Assemblies Using a Radiant Heat Energy Source.
2. NFPA 285 - Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components

1.4 SUBMITTALS

A. Submit under provisions of Section 01 30 00.

B. 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.

C. Shop Drawings: Submit plan, section, elevation and perspective drawings necessary to describe and convey the layout, profiles and product components, including edge conditions, panel joints, fixture location, anchorage, accessories, finish colors, patterns and textures.

D. Code Compliance: Documents showing product compliance with local building code shall be submitted prior to the bid. These documents shall include, but not be limited to, appropriate Evaluation Reports and/or test reports supporting the use of the product. Alternate materials must be approved by the architect of record prior to the bid date.

E. Engineering Calculations: Submit engineering calculations as required by the local building code, showing that the installed panels and attachments system meets the wind load requirements for the project.

F. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns. Please note that samples are only representative for color and pattern and not for thickness or edge finish. Metallic colors may also show a slight fluctuation in appearance do to the metal flake orientation from batch to batch.

G. Verification Samples: For each finish product specified, two samples a minimum of 3.5 inches by 3.5 inches (89 mm by 89 mm) representing actual product, color, and patterns. Sample edges may vary from field panel edges.

H. Operation and Maintenance Data: Submit operation, maintenance, and cleaning information for products covered under this section.

I. Project Compliance: Documents showing product compliance with project specifications to include FSC Certification, Greenguard, LEED, Environmental Product Declarations, etc.

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications: All panel products specified in this section will be supplied by a single manufacturer with a minimum of 25 years' experience.

1. Products covered under the Work listed in this section are to be manufactured in an ISO 9001 certified facility.

2. Products covered under the work listed in this section are to be manufactured in an ISO 14001 Certified facility.

B. Installer Qualifications: All products listed in this section are to be installed by an installing firm who can prove 3 years in business and exemplary workmanship. Installing firm must have evidence of installing rainscreen wall panel systems and is suitable for the execution of the work.

C. Mock-Up: Provide a mock-up for evaluation of the product and application workmanship.

1. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.

D. Pre-Installation Meetings: Conduct pre-installation conference to verify project requirements, substrate conditions, manufacturer's installation instructions and manufacturer's warranty requirements.

#### 1.6 DELIVERY, STORAGE, AND HANDLING

A. Delivery:

1. During transportation, use stable, flat pallets that are at least the same dimension as the sheets.

2. Materials shall be packaged to minimize or eliminate the possibility of damage during shipping. Items such as wooden side boards, wooden lid, and spacers or protective sheeting between panels shall be used to protect the panels from surface and/or edge damage.

B. Storage:

1. Store products in an enclosed area protected from direct sunlight, moisture and heat. Maintain a consistent temperature and humidity.

2. Store products in manufacturer's and/or fabricators unopened packaging until ready for installation.

3. Stack planks using protective dividers to avoid damage to decorative surface.

4. For horizontal storage, store planks on pallets of equal or greater size as the planks with a protective layer between the pallet and planks and on top of the uppermost sheet.

5. Do not store planks vertically.

C. Handling:

1. Remove protective film within 24 hours of the panels being removed from the pallet.

2. When moving planks, lift evenly to avoid dragging planks across each other and scratching the decorative surface.

3. Remove all labels and stickers immediately after installation.

#### 1.7 PROJECT CONDITIONS

A. 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.

B. Field Measurements: Verify actual measurements/openings by field measurements performed by the installer prior to release for fabrication. Recorded measurements to be indicated on shop drawings based on field measurements provided by the installer. Coordinate field measurements and fabrication schedule with construction progress to avoid construction delays.

#### 1.8 WARRANTY

A. Warranty: At project closeout, provide manufacturer's limited warranty documentation and material data property sheet.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

A. Acceptable Manufacturer: Trespa International B.V.; P.O. Box 110, 6000 AC Weert Wetering 20, 6002 SM Weert The Netherlands; [www.trespa.com](http://www.trespa.com).

B. Acceptable Manufacturer's Representative: Trespa North America, Ltd.; 350 5th Ave Suite 4610 New York, New York 10118. ASD. Toll Free Tel: (800) 4-TRESPA. Tel: (858) 679-2090. Fax: (858) 679-9568. Email: [info.northamerica@trespa.com](mailto:info.northamerica@trespa.com). Web: <http://www.trespa.com/na>.

C. Acceptable Manufacturers Distributor/Fabricator: Allied Technical Solutions; 885 Milner Ave., Toronto, ON M1B 5V8 Toll Free Tel 855-444-0588 Tel: 416-444-0535 [sales@ats-sales.ca](mailto:sales@ats-sales.ca) or [estimating@ats-sales.ca](mailto:estimating@ats-sales.ca) <https://ats-sales.ca/>

D. Substitutions: Not permitted.

E. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00.

### 2.2 WALL PLANKS

A. Solid Phenolic Wall Planks: Trespa Meteon Pura by Trespa International B. V. as represented by Trespa North America, LTD.

1. Material: Solid plank manufactured using a combination of high pressure and temperature to create a flat plank created from thermosetting resins, homogenously reinforced with natural fibers and an integrated decorative surface or printed décor.

2. Plank Size: width to varies between 3" and 24" x 8', 10', 12' or 14' long

3. Plank Thickness: 8mm (5/16")

4. Plank Type: Single sided decorative.

5. Plank Decor: Unicolor, or Metallic, or Lumen (not available in 14' long format), or Focus (not available in 14' long format), or Wood Décor, or Natural Decor. As selected by the Architect from manufacturer's standard decor palette, see Standard Delivery Program North America

6. Plank Core: Fire retardant (FR) black core.

7. Physical Properties:

a. Modulus of Elasticity: 1,300,000 psi (9000 N/mm<sup>2</sup>) minimum, ISO 178.

b. Tensile Strength: 10,100 psi (70 N/mm<sup>2</sup>) minimum, ISO 527-2.

c. Flexural Strength: 14,500psi (120 N/mm<sup>2</sup>) minimum, ISO 178.

d. Thermal Conductivity: 2.1 BTU/inch/ft<sup>2</sup>.hr.°F, EN 12524.

e. Structural Performance (ASTM E330):

1) Planks shall be designed to withstand the Design Wind Load based upon the local building code, but in no case less than 15 pounds per square foot (psf). Wind load testing shall be done in accordance with this standard to obtain the following results:

2) Normal to the plane of the wall, the maximum panel deflection shall not exceed L/175

3) Normal to the plane of the wall between supports, deflection of the aluminum sub-framing members shall not exceed L/175 or 3/4 inch, whichever is less

a) At 1-1/2 times design pressure, permanent deflection of framing members shall not exceed L/100 of span length and components shall not experience failure or gross permanent distortion.

b) If system tests are not available, mock ups shall be constructed and tests performed under the direction of an independent third party laboratory which show compliance to the minimum standards listed above.

8. Fire Performance:

- a. Flame Spread: Class A, Less than 25, ASTM E 84.
- b. Smoke Development: Less than 450, ASTM E 84.
- c. Ignition Temperature: Greater than 650 degree F (350 degree C) above ambient, ASTM D1929.
- d. Burning Classification: CC1 or CC2, ASTM D635.
- e. When required for compliance with local building codes, the wall cladding assembly shall show no degradation of the rating of Fire Resistant Assemblies, ASTM E119.
- f. When required for compliance with local building codes, the wall cladding assembly including cladding and non-cladding elements such as, but not limited to, specific weather resistive barriers and/or exterior insulation materials, shall meet the performance requirements of NFPA 285. Performance shall be determined by actual testing in accordance with NFPA 285 or through an equivalency analysis provided by a recognized fire protection expert.
- g. When required for compliance with local building codes, the wall cladding assembly shall not ignite when exposed to a radiant heat energy source, NFPA268.

9. Finish Performance: Electron Beam Cure resin in conformance with the following general requirements:

- a. Decor: As selected by the architect/engineer from manufacturer's standard decors or a custom color to be matched by the panel supplier.
- b. Humidity Resistance: No formation of blisters when subjected to condensing water fog at 100% relative humidity and 100 degree F (38 degree C) for 3000 hours, ASTM D 2247.
- c. Salt Spray Resistance: Corrosion creepage from scribe line (1/16 inch (1.6 mm) max.) and minimum blister rating of 8 within the test specimen field, ASTM B117.
- d. Weather Exposure: Tested to two standards using a Xenon Arc Light and water to simulate weather exposure.
  1. Florida test cycle of 3000 hours=10 years (vertical application)
  2. EN 438-2:29 Western European test cycle of 1000 hours=10 years (vertical application)
- e. Color Stability: The decorative surface comply with, classification, 4 - 5 measured with the grey scale according to ISO 105 A02-93 according to test method EN 438-2:29.
- f. Microbial Characteristics: Will not support micro-organic growth (ISO 846).

A. Mounting System:

1. Flush Siding System.
2. Lap Siding System.

B. Sub Structure:

1. Sub-structure designed to withstand structural loading due to wind load and the dead load of the panel, painted as required to conceal behind the open joinery of the attachment system.
2. Extrusions, battens, including corner closures, joint closures and vent screens, formed members, sheet, and plate shall conform with the recommendations of the manufacturer.

C. Fasteners (Concealed): Fasteners are non-corrosive. Where exposed fasteners are required, they shall be colored to match planks where required by the architect. Fastener colors include Mill, or black, or siding color matched.

D. Accessories:

1. Extruded aluminum trim includes outside corners, start profiles, j channel, and finish profiles.
2. Available in mill, or black, or color siding matched colors.

## 2.3 FABRICATION

A. Planks: Solid phenolic wall planks with no voids, air spaces or foamed insulation in the core material.

Accessory items in accordance with manufacturer's recommendations and approved submittals

B. Panel Weight: 8 mm (2.4 lb/ft<sup>2</sup>).

C. Panel Bow: = 2 mm / m (= 0.079 inch/39.38 inches).

D. Plank Dimensions: Field fabrication shall be allowed where necessary, but shall be kept to a minimum. All fabrication shall be done under controlled shop conditions when possible.

E. Appearance: Plank lines, breaks, and angles shall be sharp, true, and surfaces free from warp and buckle

## PART 3 - EXECUTION

### 3.1 EXAMINATION

A. Do not begin installation until substrates have been properly prepared.

B. Surfaces to receive planks shall be even, smooth, dry, and free from defects detrimental to the installation of the plank system. Notify Contractor in writing of conditions detrimental to proper and timely completion of the work.

C. Confirm exterior sheathing is plumb and level, with no deflection greater than 1/4 inch (6 mm) in 20 feet (6096 mm).

D. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

Do not proceed with installation until unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

A. Clean surfaces thoroughly prior to installation.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

### 3.3 INSTALLATION

A. Install solid phenolic wall planks and sub-frame system in accordance with manufacturer's instructions.

B. Install solid phenolic wall planks plumb and level and accurately spaced in accordance with manufacturer's recommendations and approved submittals and drawings.

C. Anchor panels and sub-framing securely per engineering recommendations and in accordance with approved shop drawings to allow for necessary movement and structural support.

D. Fasten solid phenolic wall planks with fasteners approved for use with supporting substrate.

E. Do not install planks or component parts which are observed to be defective or damaged including, but not limited to: warped, bowed, abraded, scratched, and broken members.

F. Do not cut or trim component parts during installation in a manner that would damage the finish, decrease the strength, or result in visual imperfection or a failure in performance. Return component parts with require alteration to the shop for re-fabrication or replacement.

G. Install profiles and trim with fasteners appropriate for use with adjoining construction as indicated on the Contract Drawings and as recommended by manufacturer.

3.4 ADJUSTING AND CLEANING

- A. Remove masking or panel protection as soon as possible after installation. Any masking intentionally left in place after plank installation on an elevation, shall become the responsibility of the General Contractor to remove.
- B. Adjust final plank installation so that all joints are true and even throughout the installation. Planks out of plane shall be adjusted with the surrounding panels to minimize any imperfection.
- C. Repair planks with minor damage. Remove and replace planks damaged beyond repair as a direct result of the planks installation. After installation, plank repair and replacement shall become the responsibility of the General Contractor.
- D. Clean finished surfaces as recommended by plank manufacturer. After installation cleaning, cleaning during construction shall become the responsibility of the General Contractor.

**END OF SECTION**