

SECTION 097700

TRESPA ® SOLID COMPOSITE PHENOLIC INTERIOR WALL PANEL SYSTEM

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Solid composite phenolic wall linings.
- B. Trim and accessories for attaching wall panels, including fastenings, accessory features, connections to the building structure, and other items not mentioned specifically herein, and which are necessary to make a complete installation.

1.02 RELATED SECTIONS

- A. Documents affecting work in this section includes but is not limited to the General Conditions, Supplementary Conditions and Sections in Division 1 – General Requirements of these Specifications.
- A. 064000 – Architectural Woodwork.
- B. 074243 – Exterior Wall Panels.
- C. 079200 - Caulking and Sealants.
- D. 092216 – Non-Structural Metal Stud Framing.
- E. 092900 - Gypsum Board Systems.
- F. 099000 – Painting.

1.03 QUALITY ASSURANCE

- A. Work Quality: All work of this Section to be manufactured and constructed, assembled and installed by skilled craft persons in finish carpentry. All such work to be accurately fabricated, assembled, joined and expertly finished in accordance with measurements taken on the job-site.
- B. Defective Work: All work, work not true to line, not in satisfactory operating condition, improperly installed, damaged or marred will not be accepted. Remedy, remove or replace defective work as directed by the Architect.

- C. Standards: All applicable Sections of the "Manual of Millwork" and current supplements published by the Woodwork Institute for the construction types and grades hereinafter specified. All modifications to such standards shown on the Contract Drawings and approved Shop Drawings or specified shall govern.
- D. Manufacturer: Install wall panels produced by one manufacturer whose published product literature clearly indicates compliance with specifications.

1.04 SUBMITTALS

- A. Submit in accordance with Division 1 Submittal Procedures.
- B. Submit four samples, 3 1/2" x 3 1/2", of each color, and texture of specified products.
- C. Submit the following Quality Assurance Submittals:
 - 1. Test Reports: Submit certified test reports showing compliance with specified performance characteristics and physical properties.
 - 2. Product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements

1.05 DELIVERY, STORAGE AND HANDLING

- A. Deliver and store materials in the manufacturer's original protective packaging. Store materials in an enclosed shelter providing protection from damage and exposure to the elements.

1.06 COORDINATION

- A. Do work of this Section in a fully coordinated and cooperative manner with work of other trades to provide complete and proper installation and to expedite the job without delays.
- B. Secure field measurements before preparation of shop drawings and fabrication where possible, for proper and adequate fabrication and installation of the work.
- C. Priming and back-painting of all carpentry and millwork is specified in Section 099000 - Painting. Do not set items until priming and back-painting have been completed.
- D. Where phenolic panels are clad around outside corners of a room, the drywall installer should avoid installing drywall corner beads, as this makes shimming the phenolic panels very difficult. (See Section 092600).

- E. Protect all work against damage of any kind until final acceptance of the building. Repair or replace damaged work to the satisfaction of the Architect without additional cost to the Owner.
- F. Provide adequate ventilation and acclimate panels per Woodwork Institute Manual of Millwork.

1.07 WARRANTY

- A. Wall panel to be warranted against delamination for 10 years. The factory authorized fabricator, product installer and material manufacturer must sign and date the Warranty documents and submit a copy to the Contractor for the warranty to be valid.

PART 2 – PRODUCTS

2.01 MANUFACTURERS

- A. These specifications are based on solid composite phenolic wall panels manufactured by Trespa North America, 800-487-3772, and the wall panel trim and connectors manufactured and fabricated by Wall Panel Systems, 909-307-8888.
 - a. Represented locally by W.H. Steele Co., 909-930-0831. A list of approved installers that provide the system specified in this section as judged and approved by the architect may be acquired from the above.
- B. All panel products specified in this section shall be provided by a single manufacturer.

2.02 MATERIALS

- A. Basis of design: Trespa North America, colors and surface texture as specified by Architect.
- B. Thickness: A thickness of 10mm (3/8”) or 8m (5/16”) is approved for interior walls with concealed fasteners, “Z” clip installations.
- C. Panel color/texture: to be selected by Architect from Manufacturer’s standard [Virtuon] [Meteon] [Athlon] color pallet, which may include metallics or wood grains, or solid colors. (Note to Bidders: Virtuon and Meteon panels are more expensive than Athlon, and in the Virtuon and Meteon lines metallics and wood grains are more expensive than solid colors.)
 - 1. [Color 1 side] [different color 2 sides] [same color both sides].

2. Texture to be [Satin] [Gloss] [Rock] [Quartz].

2.03 FABRICATION

- A. Trespa panels can be sawn, cut, routed and drilled with the usual tools used to fabricate hardwoods (i.e. carbide tipped blades). Wall Panel Systems is the Authorized Trespa fabricator who must fabricate the panels and attach the Z-Clips and trim to ensure proper tolerances. Field modifications are possible by the installing contractor using hand tools that meet the above requirements.

2.04 SOURCE QUALITY CONTROL

- A. Panels shall be of material specifically designed for wall cladding. Fabricated panels shall comply with all current codes and regulations. Panels shall have uniform thickness (+0.03") and flatness (maximum difference of 0.03") for 10-foot span.
- B. Flame spread (ASTM E-84): Panels to be UL registered and labeled for quality consistency.
 - a. Class 1 or Class A.
 - b. Class 2 or Class B.

Note: If Class A Fire Rating is not required, then use Class B, as it saves 10% of cost of panels.

- C. Performance requirements:
 1. Modulus of elasticity: 1,500,000-psi minimum.
 2. Shear strength: 2000-psi minimum.
 3. Compressive strength: 24,000-psi minimum.
 1. Weight: 93 lbs. per cubic foot maximum.
 2. Tensile strength: 13,000-PSI, minimum.
 6. Flexural strength: 16,000-PSI minimum.
 7. Surface Impact Resistance: 9 lb.
 8. Scratch Resistance: 0.8 lb.
- D. Panel Tolerance:
 1. Thickness: 1/32", maximum.
 1. Length: 1/4", maximum.
 2. Width: 1/4", maximum.
 3. Non-porous surface and edges.
- E. Physical Properties:
 1. Specific Gravity: 87 lbs. per cubic foot, minimum.

2. Dimensional Stability: 0.03 in/ft, maximum.
3. Water Absorption: 3% by weight, maximum.
4. Vapor Diffusion: 30,000

F. Optical Properties:

1. Color Stability: Gray scale 4 – 5 according to ISO 105A02-87, (3000 hours Xenon test 1200).
1. SO (2) resistance: Gray scale 4 – 5 (50 cycles 0.0067%).

2.05 SUB-FRAME ASSEMBLY

- A. Aluminum “Z” clips and trim to be manufactured specifically to meet the following requirements:
1. Handle the weight of phenolic panels.
 2. Fasteners for panel assembly to be designed to keep panels consistently flat at each joint.
 3. Capable of holding panels up to 6’ high x 12’ wide.
 4. Allow 1/4" ventilation gap between the wall and the back side of the panel clip, to prevent condensation behind the panels.
 5. System to allow interchanging of components at a later date, with a dry-fit installation. No liquid adhesives to be used.
- B. Trim and Clip Material
1. Where not seen: Al 6061-T6.
 2. Where visible: Al 6063-T5.
 3. Thickness: not less than 0.62”.
- C. Fasteners to be self-tapping Type F, 8/32” x 3/8” plated steel.
- D. Panel trim for joints, edges and corners to be from Wall Panel Systems; Shadowline, Captured, or Open Reveal System (ORS) as shown on drawings.
1. Finish: (choose option)
 - a. Mill Finish
 - b. Clear Satin Anodized
 - c. Black Anodized
 - d. Bronze Anodized
 - e. Gold Anodized

PART 3 – EXECUTION

3.01 INSTALLATION

- A. Install panels and fixing system as per shop drawings and specification.
- B. Install aluminum sub-frame to support the “Z” clip sub-frame assembly.

- C. Maximum fixing distances:
 - a. 2 fixing points in one direction using:
 - i. 8 mm panel is 27”.
 - ii. 10 mm panel is 33”.
 - b. 3 or more fixing points in one direction:
 - i. 8 mm panel is 31”
 - ii. 10mm panel is 37”.
- D. The installation of the panel clip system shall be true and plumb.
- E. Face of the panels are to sit out from the face of the wall $\frac{3}{4}$ ” +/- shimming as required.
- F. Installed panels shall have vertical joints with splines routed directly in the center of the panel edge to ensure that all four intersecting panels are kept in the same plane.
- G. Exact sizes and dimensions of the trim to be coordinated with the drawings, field conditions and approved shop drawings.

3.02 PROTECTION

- A. After installation, the General Contractor shall protect the panels from damage. The panels shall be kept free from paint, plaster, cement scratches, or any other destructive forces.

1. CLEANING

- A. Panels to be cleaned with standard cleaning solution. Mild solvents may be used to remove stubborn marks and dirt.
- B. Repair or replace all damaged material to the satisfaction of the Architect and/or Contractor.
- C. Installed areas or portions of the work shall be inspected by Architect or General Contractor and approved immediately following completion of such areas.

END OF SECTION