



NORTH AMERICA, LTD.

SECTION 12350

LABORATORY COUNTERTOPS

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PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Solid Phenolic Laboratory countertops.

1.2 RELATED SECTIONS

- A. Section 12350 - Laboratory Casework: Adjacent cabinetry installed in conjunction with Laboratory Countertops.
- B. Section 15410 - Plumbing Fixtures: Sinks and Lavatories installed in Laboratory Tops.

1.3 REFERENCES

- A. Architectural Woodwork Institute (AWI):
 - 1. AWI Quality Manual.
- B. ISO 1183 - Standard Test Methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement.
- C. Scientific Equipment and Furniture Association (SEFA):
 - 1. SEFA 8 (Laboratory Casework).
- D. GreenGuard and GreenGuard Children and Schools FC2Lp94711-3.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.

- 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, joints, fitting and fixture locations, anchorage, accessories, finish colors, patterns and textures.
- D. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
- E. Verification Samples: For each finish product specified, two samples representing actual product, color, and patterns.
- F. Quality Assurance Submittals: Submit the following:
 1. Test Reports: Submit certified test reports or recognized evaluation reports showing compliance with specified performance characteristics and physical properties.
 2. Certificates:
 3. Qualification Certificates: Submit certificate indicating compliance with qualification requirements in Quality Assurance article.
 - a. Product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.
- G. LEED Submittals: Submit Documentation affirming the eligibility for the following credits under the following USGBC LEED NC V2.2 Standards:
 1. Credit: MRc1.3 - Reuse of 50 percent of interior non-structural elements - 1 Credit.
 2. Credit: MRc2.1 - Diversion of 50 percent of demolition from landfills - 1 Credit.
 3. Credit: MRc2.2 - Diversion of 75 percent of demolition from landfills - 1 Credit.
 4. Credit: MRc3.1 - Reuse of 5 percent of existing materials - 1 Credit.
 5. Credit: MRc3.2 - Reuse of 10 percent of existing materials - 1 Credit.
 6. Credit: EQc4.4 - Low Emitting Materials: Composite Wood and Agrifiber Products - 1 Credit.
- H. Closeout Submittals:
 1. Operation and Maintenance Data: Submit operation, maintenance, cleaning and lifecycle information for products covered under this section.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: All primary products specified in this section will be supplied by a single manufacturer with a minimum of ten (10) years experience.
 1. Products covered under the Work listed in this section are to be manufactured in an ISO 9001 certified facility.
- B. Installer Qualifications: All products listed in this section are to be installed by a single installer with a minimum of five (5) years demonstrated experience in installing products of the same type and scope as specified.
- C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
 1. Finish areas designated by Architect.
 2. Do not proceed with remaining work until workmanship, color, and sheen are

- 3. approved by Architect.
- 3. Refinish mock-up area as required to produce acceptable work.
- 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 lods, 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 moisture and heat. Maintain a consistent temperature and humidity.
 - 2. Store products in manufacturer's unopened packaging until ready for installation.
 - 3. Store panels using protective dividers to avoid damage to decorative surface.
 - 4. For horizontal storage, store sheets on pallets of equal or greater size as the sheets with a protective layer between the pallet and sheet and on top of the uppermost sheet.
 - 5. Do not store sheets, or fabricated panels vertically
- C. Handling:
 - 1. Do not remove protective film until panel has been installed.
 - 2. When moving sheets, lift to avoid scratching the decorative surface.
 - 3. Remove all 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 before fabrication; show recorded measurements on shop drawings. Coordinate field measurements and fabrication schedule with construction progress to avoid construction delays.

1.8 WARRANTY

- A. At project closeout, provide to Owner or Owners Representative an executed copy of the manufacturer's standard limited warranty against manufacturing defect, outlining its terms, conditions, and exclusions from coverage.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Trespa North America, Ltd., which is located at: 12267 Crosthwaite Cir. ; Poway, CA 92064; Toll Free Tel: 800-4-TRESPA; Tel: 858-679-2090; Email: [request info \(chastings@trespanorthamerica.com\)](mailto:request info (chastings@trespanorthamerica.com)); Web: www.trespa.com

- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 TRESPA TOPLAB PLUS SOLID PHENOLIC LABORATORY TOPS

- A. Material: Solid phenolic panel.
 - 1. Modulus of Elasticity: 1,305,000 psi (9,000 N/sqmm) minimum.
 - 2. Tensile Strength: 10,150 psi (70 N/sqmm) minimum.
 - 3. Flexural Strength: 14,500 psi (100 N/sqmm) minimum.
 - 4. Porosity: Nonporous surface and edges.
 - 5. Microbial Characteristics: Will not support microorganic growth.
 - 6. Chemical Resistance: Provide solid phenolic panel providing minimum performance when tested for chemical resistance in accordance with SEFA 8 (Laboratory Casework).
- B. Dimensions:
 - 1. Panel Thickness: 1/2 inch (13 mm).
 - 2. Panel Thickness: 5/8 inch (16 mm).
 - 3. Panel Thickness: 3/4 inch (19 mm).
 - 4. Panel Thickness: 1 inch (25 mm).
 - 5. Panel Thickness: As noted on the Contract Drawings.
- C. Finish:
 - 1. Surfacing: Crystal Matt on decorative side with non-decorative black reverse.
 - 2. Color: As Specified in the Finish Schedule of the Contract Documents.
 - 3. Color: Mystic White T18.0.1.
 - 4. Color: White T03.0.0.
 - 5. Color: Pastel Grey T03.1.0.
 - 6. Color: Polar Green T30.0.1.
 - 7. Color: Limestone Yellow T05.0.1.
 - 8. Color: Silver Grey T03.4.0.
 - 9. Color: Glacier Blue T21.1.1.
 - 10. Color: Canyon Red T09.3.4.
 - 11. Color: Black T90.0.0.
 - 12. Color: Speckled - Mystic White/Blue D02.0.8.
 - 13. Color: Speckled - Limestone Yellow/Saffron D02.0.9.
 - 14. Color: Speckled - Pastel Grey/Silver D02.1.0.

2.3 ACCESSORIES

- A. Laboratory Shelving: Provide solid phenolic laboratory shelving where indicated on the Contract Drawings.
- B. Pegboards: Provide solid phenolic pegboards where indicated on the Contract Drawings.
- C. Reagent Racks: Provide solid phenolic reagent racks where indicated on the Contract Drawings.
- D. Installation Materials: Provide solid phenolic laboratory top manufacturer's joint adhesive, panel adhesive and sealants as required to suit project conditions.

2.4 FABRICATION

- A. Fabricate solid phenolic laboratory tops and accessory items in accordance with

manufacturer's recommendations, approved submittals and SEFA 8 - (Laboratory Casework)

1. Comply with requirements of AWI Custom grade.
 2. Comply with requirements of AWI Premium grade.
- B. Edge Treatment:
1. Type: As indicated on the Contract Drawings.
 2. Type: Chamfer or radius edge and drip groove.
 3. Type: Crescent edge.
 4. Type: Standard edge (chamfer) or radius 1/16 inch (2mm).
 5. Type: _____.
 6. Ease all top edges and vertical corners to 1/4 inch (6 mm) radius and sand smooth.
 7. Provide drip groove unless otherwise indicated.
- C. Joints
1. Type: As indicated on the Contract Drawings.
 2. Type: As selected from the manufacturer's available joint options.
 3. Type: Tight joint with spline and chamfer.
 4. Type: Tight joint with spline and sealant - recommended for hygienic applications.
 5. Type: Tight joints with spline.
 6. Type: _____.
 7. It is recommended that the joint between two benches should be level. As a rule joints should be located away from sink areas and over or near supports.
- D. Sink cut outs
1. Type: As indicated on the Contract Drawings.
 2. Type: As selected from the manufacturer's available joint options.
 3. Type: Groove for undermount sink
 4. Type: Routed for drop in sink
 5. Type: Sink cut out with lid, edge with drip groove for undermount sink
 6. Type: _____.
 7. It is recommended that an adequate gap should be provided between sink lid and sink hole.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. Confirm surfaces are plumb and level, with no deflection greater than 1/4 inch (6mm) in 20 feet (6096mm).
- C. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

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 in accordance with manufacturer's instructions.

- B. Laboratory Top Installation: Install laboratory tops plumb and level. Scribe to adjacent surfaces in accordance with manufacturer's recommendations.
 - 1. Fasten laboratory tops to supporting casework with fasteners and adhesive appropriate for use with adjoining construction as indicated on drawings and as recommended by manufacturer.
 - 2. Form field joints using manufacturer's recommended adhesive. Form inconspicuous and nonporous joints. Seal flexible joints using manufacturer's recommended adhesive.
- C. Accessory Items: Install laboratory shelving, and racks with fasteners and adhesive appropriate for use with adjoining construction as indicated on Contract Drawings and as recommended by manufacturer.

3.4 FIELD QUALITY REQUIREMENTS

- A. Manufacturer's Field Services: Upon Owner's request, provide manufacturer's field service consisting of product use recommendations and periodic site visits for inspection of product installation in accordance with manufacturer's instructions.

3.5 PROTECTION

- A. Protect installed products until completion of project. Remove all protective foil and labels immediately after installation.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION