

## SECTION 12345

### TRESPA TOPLAB<sup>BASE</sup>® SOLID COMPOSITE LABORATORY WORK SURFACES

#### PART 1 – GENERAL

##### 1.01 SECTION INCLUDES

- A. Solid composite work surfaces.

##### 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.
- B. 06200 - Finish Carpentry.
- C. 10500 - Lockers.
- D. 10670 - Shelving.
- E. 12300 - Laboratory Casework and Fixtures.
- F. 15400 - Sinks Field Inserted in Countertops.

##### 1.03 REFERENCES

- A. SEFA 3-2010 Recommended Practices for Laboratory Work Surfaces

##### 1.04 SUBMITTALS

- A. Submit in accordance with Section 01300.
- B. Submit four samples 4”x 6” of each color and thickness of material used.

##### 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. Field Measurements: Secure field measurements before preparation of shop drawings and fabrication where possible, for proper and adequate fabrication and installation of the work.
- B. Coordination: Furnish anchorage and top connection devices or material as specified.

## 10.7 WARRANTY

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

## PART 2 – PRODUCTS

### 2.01 MANUFACTURERS

- A. These specifications are based on raw material panels manufactured by Trespa, and provided by Trespa North America, Ltd., located at 62 Greene Street, New York, NY 10012, 800-487-3772. Approved fabricators that provide products that comply with this specification section as judged and approved by the architect may be acquired from the above.
- B. All products specified in this section shall be provided by a single manufacturer.

### 2.02 MATERIALS

- A. Basis of design: Trespa TopLab<sup>BASE</sup> (Double Sided Crystal).
- B. Thickness: As specified on drawings or by Architect.
- C. Color: to be selected by Architect from Manufacturer's standard color pallet.

### 2.03 FABRICATION

- A. Drip grooves shall be provided on the underside at all exposed edges unless otherwise noted on Laboratory Furnishings Drawings.

- B. All exposed edges to be sanded to a smooth finish and, except as indicated below, shall be rounded to a 1/4" radius at front top edge and at vertical corners.
- C. Fix work surface panels with blind fastenings into the back or underside of the panel. Use #10, type A sheet metal screws sized to stop at least 1/8" short of the finished face. Pre-drill panel with an 11/64" diameter high speed drills bit aligned with 7/32" clearance holes in the supporting structure.
- D. Form tight-fitting butt joints in the work surface using two part epoxy adhesive, or mechanical fasteners positioned to be concealed after installation.
- E. Curbs shall be bonded to the top of the work surface to form a square joint.
- F. Cutouts for drop-in sinks shall be routed to form openings with 3/8" minimum depth supporting flanges and such that the rim of the sink when installed is at the same level as the work surface top. Epoxy sinks shall be set in beds of epoxy adhesive. Stainless steel and polypropylene sinks shall be set in beds of silicone sealant.
- G. Cutouts for under-mounted sinks shall be routed and sanded to form smooth edged openings with the top edge radiused to approximately 1/8". The bottom edge of the sink opening shall be finished smooth with the edge broken to prevent sharpness. Corners of sink cutouts shall be radiused not less than 3/4". Under-mounted sinks shall be supported by brackets blind-fixed to the underside of the work surface.

#### 2.04 SOURCE QUALITY CONTROL

- A. Panels shall be of material specifically designed for laboratory work surfaces. Fabricated work surfaces shall comply with all current codes and regulations. Tops and shelves shall have uniform thickness (+0.03") and flatness (maximum difference of 0.03") for 10 foot span.
- B. Panels to be U.L. registered and labeled for quality consistency.

- C. Chemical Resistance: Evaluation of chemical resistance is based on SEFA 3-2010 Laboratory Work Surfaces (Scientific Equipment and Furniture Association) standard list of 49 chemicals / concentrations, their required methods of testing (24 hour surface test) and their minimum acceptable results as a means of establishing a minimum acceptable level of performance for all exposed and semi-exposed surfaces. **All solid composite phenolic panels will meet 2010 SEFA 3 testing requirements for chemical resistance (24 hour standard.)**
- D. Panels to have screw pull-out strength minimums per following chart (lbs.):
- | Screw depth: | #6  | #8  | #10 | #12 | 1/4" | 5/16" | 3/8"  | 7/16" | 1/2"  |
|--------------|-----|-----|-----|-----|------|-------|-------|-------|-------|
| 1/2" panels: | 250 | 300 | 340 | 390 | 450  | 560   | 680   | 790   | 900   |
| 5/8" panels: | 310 | 370 | 430 | 490 | 560  | 710   | 850   | 990   | 1,100 |
| 3/4" panels: |     |     | 510 | 590 | 680  | 850   | 1,000 | 1,200 | 1,400 |
- E. Uniform load to cause no more than 1/4" deflection at center of the span:
- | Thickness    | 12" x 24" | 12" x 36" | 12" x 48" | 24" x 36" |
|--------------|-----------|-----------|-----------|-----------|
| 1/2" panels: | 370       | 110       | 45        | 220       |
| 5/8" panels: | 690       | 210       | 85        | 410       |
| 3/4" panels: | 1,400     | 400       | 170       | 800       |
| 1" panels:   | 2,600     | 780       | 330       | 1,500     |
- F. Performance requirements:
1. Modulus of elasticity: 1,500,000 psi minimum.
  2. Shear strength: 2000 psi minimum.
  3. Compressive strength: 24,000 psi minimum.
  4. Weight: 93 lbs. per cubic foot maximum.
  5. Flame spread (ASTM E-84): Class 1A (25).
  6. Non-porous surface and edges.
  7. Will not support micro-organic growth.
  8. Will not support oxidation of material surface

## PART 3 – EXECUTION

### 3.01 INSTALLATION

- A. Install works tops as per shop drawings on frames or base cabinets provided per specification.

### 3.02 PROTECTION

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

END OF SECTION