

SECTION 09 77 13

STRETCHED-FABRIC WALL SYSTEM

Fabricmate Systems, Inc. is a leading supplier of stretched-fabric wall systems and pre-assembled panels. Both our stretched-fabric wall systems and Interactive Panel System (IPS Pre-assembled Panels) are available in acoustical, tackable, and magnetic versions. The Fabricmate stretched-fabric wall system is site-fabricated and can be quickly and easily installed using our innovative installation tools and techniques. The installed system provides a “monolithic” fabric covering for walls of almost any size and shape. The system can be composed of products that have up to 100% recycled content for sustainability. The system can exhibit outstanding acoustical and tackable qualities. Fabrics can be easily changed when required for repairs or when redecorating resulting in significantly reduced maintenance costs. Stretched-fabric systems can also be used for ceiling applications. The system can be directly applied to ceilings or use one of our IPS baffle or cloud products. Contact Fabricmate Systems for additional information.

ENVIRONMENTAL CONSIDERATIONS: 1. Many substrates/cores and fabrics with high recycled content are available. 2. Fabricmate products can be used to improve the acoustical characteristics of a space. 3. Fabricmate products can also provide thermal insulation. 4. Our standard products have low to no formaldehyde or other VOC content.

DRAWING COORDINATION: Shows locations where stretched-fabric wall systems are to be installed, locations of joints and any special requirements such as changes of fabrics or substrate/core, changes in direction, pattern matching, and fabrics with repeats. Contact our value engineering group for assistance with specific issues or items.

SPECIFICATION COORDINATION: Edit this guide specification to meet your project requirements. Remove language that is not applicable and add additional language as required. Coordinate work in these sections with other sections of the specifications.

HIDDEN TEXT: Use your word processor’s “Hidden Text” option to display or print specifier notes. In Microsoft Word go to Tools|Options, select the View tab and check the “hidden text” box.

DESIGN ASSISTANCE: Design details can be found in Fabricmate technical manuals and at www.fabricmate.com that describe design and installation requirements for most applications. For special requirements, value engineering options, and names of local installers contact Fabricmate at (866)622-2996 toll free or outside the United States at (805)642-7470 or e-mail us at info@fabricmate.com.

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes: Stretched-fabric wall system.
- B. Related Work:
 - 1. Section [10 11 23 – Tackboards] [_____]: Prefabricated [tackboards.] [_____].
 - 2. Fixtures Mounted on Surface of Wall System: Blocking required to mount fixtures flush with face of wall system.
 - 3. Extend [[electrical] [and] [communication] boxes,] [ducts,] [_____,] and other work as required to accommodate depth of wall system.

1.02 REFERENCES

- A. ASTM E84 – Surface Burning Characteristics of Building Materials.
- B. ASTM C208 – Cellulosic Fiber Insulating Board.
- C. ASTM C423 – Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method.
- D. ASTM C612 – Mineral Fiber Block and Board Thermal Insulation.
- E. NFPA 255 – Surface Burning Characteristics of Building Materials.
- F. NFPA 701 – Fire Tests for Flame Propagation of Textiles and Films.

1.03 SYSTEM DESCRIPTION

- A. System shall consist of track, core materials, and fabric that are site-fabricated to permit the installation of continuous, unbroken lengths (and widths) beyond those available in pre-assembled panels. System shall allow for removal and replacement of fabric without the removal and replacement of any other components.

1.04 SUBMITTALS

- A. Comply with Division 01 submittal requirements.
- B. Product Data:
 - 1. Manufacturer's Technical Data: Submit for [track], [core,] and fabric showing compliance with Specifications.
 - 2. Installation Instructions: Submit track manufacturer's installation instructions.
 - 3. Cleaning Instructions: Submit fabric manufacturer's cleaning and instructions for fabric.
 - 4. [Fabric Replacement Agreement: Submit sample copy.] (Note: This is a program where it is specified that the installer shall agree to provide a percentage of the amount of the fabric installed on the project for a specific period of time following the installation).
- C. Shop Drawings:
 - 1. [If necessary to supplement information shown on Drawings,] show types and locations of track [, cores,] fabrics [, and seams]; fabric direction; [pattern matching or repeats;] [and] [how each type of track transitions into adjacent track.]
 - 2. Show special installation instructions not included in product data.
 - 3. [Graphics Formed With Track: Submit full-sized template of layout.]
 - 4. [Printed Graphics: _____.]
- D. Samples:
 - 1. Track: [two] [_____] 4" long samples.
 - 2. Core: Submit [two] [_____] 8-1/2" X 11" samples.
 - 3. [Fabric Submittal for Color Selection: Submit [two] [_____] sets of fabric manufacturer's standard tip cards showing full range of colors, textures, and patterns available.]
 - 4. [Fabric: Submit [two] [_____] swatches in fabric manufacturer's standard size showing fabric, color, texture and pattern..]
 - 5. [Welded Seam: Submit [two] [_____] 8-1/2" X 11" samples of [each type of] fabric to be used showing ultrasonically welded seam.]
 - 6. System Assembly: Provide [two] [_____] [8-1/2" x 11"] [_____] assemblies of wall system showing tracks, cores, and fabrics required. Install assemblies on substrate that allows them to be handled without damage.
 - 7. [Accessories: Submit [one] [_____] of each type of accessory kit.]
- E. Installer Qualification Statement: Submit certification of installer qualifications.
- F. QUALITY ASSURANCE
 - 1. [Installer Qualifications: Firm approved by track manufacturer.]
 - 2. [Installer Qualifications: Firm with not less than three-years experience installing stretched-fabric wall systems.]
 - 3. Mock-Up: Install wall system on wall selected by Architect. Notify Architect and allow Architect to review mock-up. Make modifications to mock-up as required by Architect. Accepted mock-up establishes quality for remaining work and may remain as part of Project.

1.05 DELIVERIES, STORAGE, AND HANDLING

- A. Comply with instructions of manufacturer. Protect from moisture in shipment, storage, and handling. Deliver in unopened bundles and store in a dry place with adequate air circulation. Do not deliver [cores or] fabrics until wet work such as concrete and plaster has been completed.

1.06 PROJECT CONDITIONS

- A. Do not install [core or] fabric until building is enclosed and temperature and humidity are maintained at approximate conditions planned for occupancy and in accordance with instructions of manufacturer.
- B. Install fabric under lighting conditions similar to permanent lighting. [If permanent lighting is not operable when fabric is installed, provide not less than 50 foot candles of illumination on surfaces to be covered.]

1.07 WARRANTY

- A. Provide track manufacturer's five-year limited warranty against defects and workmanship in wall system.

1.08 EXTRA MATERIALS

- A. Fabric: Furnish [two] [_____] percent of gross wall system area for each color, pattern, and type of fabric used. Pack for storage with protective covering and label.
- B. Accessories: Furnish extra [ten] [_____] percent of each accessory.

1.09 NO-COST FABRIC REPLACEMENT PROGRAM

- A. Provide fabric replacement agreement signed by installer. Owner will not be liable for additional payments for work performed under agreement.
- B. Agreement shall have a [3-year term and include replacement of up to ten percent] [15-year term and include replacement of up to fifteen percent] of fabric on Project.
- C. Provide materials and labor to replace fabric damaged for any reason. Replacement fabric may not exceed cost of original fabric.
- D. If fabric in excess of specified percent requires replacement during term of agreement, installer shall replace fabric for the cost of the fabric plus prevailing labor rate at owner's expense.
- E. Installer shall make reasonable efforts to respond to Owner's service requests within 48 hours.
- F. Agreement will not cover removal or replacement of items not specified in this section.
- G. If Owner chooses to install or maintain the Fabricmate system, Fabricmate shall train Owner's personnel and shall sell Owner additional materials and installation tools at standard terms and prices.

PART 2 - PRODUCTS

2.01 "OWNER'S STANDARD" PRODUCTS

- A. Products in this Section are designated “Owner’s Standard” products and Owner will accept no substitutes.

2.02 TRACK

- A. Manufacturer: Fabricmate Systems Inc. (www.fabricmate.com); (866)622-2996 or (805)642-7470 (from outside the United States), info@fabricmate.com.
- B. Fabrication: One-piece extruded polymer track with 0.062" minimum wall thickness. Hinged, self-locking, snap-lock, and 2-piece extrusions do not satisfy design intent and are not acceptable.
- C. Performance: Track shall be able to securely hold fabric without sagging, allow fabric to be easily removed, and permit repeated cycles of fabric attachment and removal.
- D. Depth: [½".] [1".] [2".] [As shown on Drawings.] [As required to accommodate core materials.]
- E. Color: [Natural] [Black] [Paint with [_____]] to match color selected by Architect.]
- F. Perimeter Track:
 - 1. Profile: [Square] [Beveled] [Square and beveled as shown on track detail drawings.]
 - 2. Type: [Fabric inserts from front; side of track is exposed.] [Fabric inserts from side and wraps track. In locations with less than 8" of clearance between track and obstacles, fabric inserts from front and side of track is exposed.]
- G. Outside Corners: Fire retardant-treated wood, medium density fiberboard or plastic trim as required; [square] [bullnose] edge.
- H. Intermediate Track: [Square butt joint.] [Beveled butt joint.] [Square and beveled butt joints as shown on Drawings.]
- I. Fasteners: Provide screws, staples, or other fasteners suitable for use on different surfaces as recommended by track manufacturer.

2.03 BACKING MATERIALS

- A. Tackable/Acoustical Backing Material:
 - 1. Type: [Fabricmate ReCore® Single-Solution Substrate – 65% post consumer product content, lightweight, tackable, high-impact], [Wood fiberboard complying with ASTM C208] [or] [mineral fiberboard equal to USG Micore].
 - 2. Density: [½"-7.5 pcf minimum] [1"- 6.8 pcf minimum].
 - 3. Thickness: [1/2"] [1"].
 - 4. Noise Reduction Coefficient (NRC): 0.25 – 0.45, ASTM C423, Type A mounting.
 - 5. Surface Burning Characteristics: ASTM E84 Class A.
 - 6. Recycled Content: up to 65%, Post-Industrial Content: up to 100%.
- B. Acoustical Backing Material:
 - 1. Types: [Fabricmate ReCore® Single-Solution Substrate – 65% post consumer product content, lightweight, tackable, high-impact] or [fiberglass].
 - 2. Thickness: [1 inch], [_____inch].
 - 3. Density: [6.8 pcf], [6 pcf], [6 pcf (with 1/8 inch thick, 12 pcf minimum “High Impact/Tackable” facing)], [_____pcf].
 - 4. NRC: 0.80, Type A mounting.
 - 5. Surface Burning Characteristics: ASTM-E84, Class A.

6. Thermal Insulation: 4.5 R-Value .
 7. Recycled Content: [_____] % post-industrial.
- C. Recycled Acoustical Backing Material:
1. Types: [Fabricmate ReCore® Single-Solution Substrate – 65% post consumer product content, lightweight, tackable, high-impact] or [Cotton].
 2. Thickness: 1” [_____]]
 3. Density: [6.8 pcf], [6.0 pcf].
 4. NRC: 0.75, Type A mounting.
 5. Surface Burning Characteristics: ASTM-E84, Class A.
 6. Recycled Content: [65% post-consumer], [80% post-industrial].
- D. Nailable Backing Material: 1/2 inch minimum thick fire retardant-treated plywood or oriented strand board. [If wall system is thicker than core, provide wood furring strips at 24 inches on center or a continuous underlayment.]
- E. [_____] Backing Material:
1. Type:
 2. Density:
 3. Thickness:
 4. Noise Reduction Coefficient (NRC):
 5. Surface Burning Characteristics:
 6. Recycled Content:
- F. Magnetic Surfaces: To add magnetic properties to a core specify Mag-Tack® .040” magnetic receptive layer. The tackability of tackable cores is maintained.
- G. Adhesive: Provide construction-grade adhesive suitable for conditions of use.
- H. Low-VOC, Low-Odor Adhesive: DYNAMITE 111 Heavy-Duty Clay Non-Strippable Wallcovering Adhesive by Gardner-Gibson.
- I. Fasteners: Provide types suitable for conditions of use.
- J. Tape: Self-adhesive tape in color similar to color of core.

2.04 FABRIC

- A. Each type of fabric shall be from a single run or lot.
- B. Fabric:
1. Product: FR701, Style 2100 by Interface Fabrics.
 2. Fiber: 100% Recycled Polyester.
 3. Weight: 16 +/- 0.5 oz./lin. yd.
 4. Usable Width: 66”.
 5. Repeat: None.
 6. Flammability: Passes NFPA 701 large scale test.
 7. Surface Burning Characteristics: ASTM E84 is Class 1 or Class A.
 8. Color/Pattern/Texture: [_____] [Not more than [two] [_____] selected by Architect from fabric manufacturer’s standards.]
- C. Fabric:
1. Product: [].
 2. Fiber: [].
 3. Weight: [].

4. Usable Width: [].
5. Repeat: [].
6. Flammability: [].
7. Surface Burning Characteristics: [].
8. Color/Pattern/Texture: [].

D. Welded Joints:

1. Provide where indicated on Drawings and if required to create a continuous expanse of fabric across areas without intermediate track.
2. Joints shall be FS-2000 ultrasonic welded micro-joints by Fabricmate Systems, Inc.
3. Fabricate on ultrasonic bonding machine with 1/16-inch 90-degree cut-seal pattern wheel used to create an ultrasonic vibration which fuses the material together, eliminating any fraying at the edges or wings behind the seam.
4. Sewn seams will not be accepted.
5. Burst strength of seamed joint shall be [_____].

E. Printed Graphics: [_____].

F. Fabric Backing: Acoustically transparent, spunbonded polypropylene scrim complying with ASTM E84 Class A. Backing shall be factory applied to fabric or installed on wall system tracks.

2.05 ACCESSORIES

- A. Stapler Kit: Provide one light-duty stapler, a box of 3/8" staples for each room with [tackable] [or] [nailable] wall system, and user instructions.
- B. "Pintainer" Accessory Kit:
 1. "Pintainer": In each room with [tackable,] [and] [magnetic] wall system, provide a clear plastic tube with colored, spill-resistant end cap that opens when squeezed. End caps shall be [_____] color.
 2. Graphic: [Container shall have imprint or decal with [name of school.] [two-color artwork as supplied by Architect.]
 3. Contents: Fill container with [approximately 100 push pins in rooms with [tackable wall system] [and] [an assortment of magnets in rooms with magnetic wall system].

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine substrates and conditions under which the wall system is to be applied and notify Architect in writing of conditions detrimental to proper and timely completion. Do not proceed until unsatisfactory conditions have been corrected.
- B. Where practical, do not install track until stationary objects abutting top and sides of wall system, such as [casework,] [door jams,] [window trim,] [ceiling grids,] [and] [_____] have been installed and work that will be concealed by wall system has been installed and accepted. If stationary objects are installed after wall system, protect wall system against damage.

3.02 INSTALLATION

- A. Install wall system in accordance with track manufacturer's instructions.

- B. Layout: [Fabric shall be installed in horizontal “railroad” manner [unless otherwise shown on Drawings.]
- C. Track:
 1. Install around perimeter of and openings within wall system and where required at intermediate locations.
 2. Fasten with screws, anchors, staples or adhesives in accordance with manufacturers instructions and as required to prevent track from separating from substrate under tension applied by stretched fabric.
 3. Install plumb and level and in proper relation to building lines. Follow contours of wall and scribe to adjoining work at borders and penetrations,
 4. Abut adjacent pieces of track. Trim or sand joints to remove visible surface irregularities.
- D. Core:
 1. Prepare substrates; remove wall plates and other obstacles.
 2. Cut core material to accurately fit inside tracked perimeter, maintaining the same plane.
 3. Fix in place with adhesive. Mechanically fasten if necessary to prevent gaps between abutting core pieces and track and to assure proper adhesion.
 4. Gap between core and track shall not exceed 1/4”.
 5. If necessary for a uniform looking appearance, tape joints.
- E. Fabric:
 1. Install fabric plumb, level, and in proper relation to building lines.
 2. Direction of fabric shall be consistent on a wall and on adjacent walls [except where otherwise shown on Drawings.] Install fabric with consideration for pattern matching and repeats.
 3. Stretch over core and tucked into the track's locking jaws using track manufacturer’s heavy-duty roller with roller bearings.
 4. Fabric shall “float” above core; do not fix in place with adhesives, fasteners, sewn seams or tape.
 5. Fabric shall be sufficiently taut to avoid sagging under seasonal temperature and humidity variations; shall maintain its shape after being touched or leaned against without leaving any indentations or blisters; and shall be free from ripples, waviness or "hourglass" effects.
 6. Outside Corners: To extent practical, wrap fabric around corners in one piece without seams or joints, creating one continuous finished surface on two different wall planes. Seams may be used if size of adjacent walls makes it impractical to wrap fabric.
 7. Ceilings and Overhead Installations: Fabric shall not droop more than one inch from true plane in 20-foot span.
- F. Infill Pieces: At areas less than 3 inches wide, it is acceptable to install prefabricated infill pieces of core and fabric.

3.03 CLEANING AND PROTECTION

- A. Clean exposed surfaces and repair minor damage in accordance with track manufacturer's instructions. Remove and replace work that cannot be cleaned and repaired to permanently eliminate evidence of damage.
- B. Protect finished installation against damage by other Work.

3.04 SCHEDULE

- A. Lobby – Room 110.

1. Track: 1 inch, black, beveled edges.
2. Core: Acoustical.
3. Fabric: FR701.
4. Color: 549 Chrome Green on east wall, 402 Green Neutral elsewhere.

B. Classrooms

1. Track: 1/2 inch, natural, square edges.
2. Core: Tackable.
3. Fabric: FR701.
4. Colors: See Room Finish Schedule.

END OF SECTION

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