**ALTRO TEGULISTM**

**Hygienic Wall Covering**

SECTION 09 72 16.16

WALL COVERINGS

**PART 1 GENERAL**

1.01 SECTION INCLUDES

A. This section includes labor, materials and other services necessary to complete vinyl wall coverings.

B. Conform with requirements of all Sections of Division 1, General Requirements, as it applies to the work of this Section.

1.02 RELATED SECTIONS

A. Section 03300 - Cast-in-Place Concrete: Concrete finishing

B. Section 06100 - Rough Carpentry: Plywood floor sheathing

C. Division 7 - Thermal and Moisture Protection

D. Division 15 - Mechanical

1.03 REFERENCES

A. General: Standards listed by reference, including revisions by issuing authority, form a part of this specification section to extent indicated. Standards listed are identified by issuing authority, authority abbreviation, designation number, title or other designation established by issuing authority. Standards subsequently referenced herein are referred to by issuing authority abbreviation and standard designation.

B. **American Society for Testing & Materials (ASTM):**

1. ASTM E 84-05 Standard Test Method for Surface Burning Characteristics of Building Materials. CLASS A

2. ASTM D5420 Gardner Impact Exceeds 160 inch pounds

 C. **Underwriters Laboratories of Canada (ULC)**

1. CAN/ULC-S102, Surface Burning Characteristics

1.04 SYSTEM DESCRIPTION

A. Performance Requirements: Provide Altro Tegulis wall covering which has been manufactured by Altro and installed to maintain performance criteria stated by manufacturer without defects, damage or failure.

1.05 SUBMITTALS

A. Product Data: Submit manufacturer’s current printed product literature, specifications, installation instructions, and field reports in accordance with Section 01330 - Submittal Procedures.

B. Shop Drawings: Submit shop drawings to indicate materials, details, and accessories in accordance with Section 01330 - Submittal Procedures including but limited to the following:

1. Submit a layout diagram indicating the location of each panel and joining method.

C. Samples: Submit duplicate sample pieces of Altro Tegulis material, as well as accessory pieces in accordance with Section 01330 - Submittal Procedures.

D. Quality Assurance Submittals: Submit the following:

1. Test Reports: Certified test reports showing compliance with specified performance characteristics and physical properties.

2. Manufacturer’s Instructions: Current published manufacturer’s installation and maintenance instructions.

3. Manufacturer’s Field Reports: Specified herein.

E. Closeout Submittals: Submit the following:

1. Operation and Maintenance Data: Operation and maintenance data for installed products in accordance with Division 1 Closeout Submittals (Maintenance Data and Operation Data) Section. Include methods for maintaining installed products and precautions against cleaning materials and methods detrimental to finishes and performance.

2. Warranty: Warranty documents specified herein.

1.06 QUALITY ASSURANCE

A. Installer Qualifications: Installer experienced in performing work of this section who has specialized in installation of work similar to that required for this project.

1. Experienced installers who have installed similar products, in similar environments.

B. Mock-ups: Install at project site a job mock-up using acceptable products and manufacturer approved installation methods. Obtain Owner’s and Consultant’s acceptance of finish color, texture and pattern, and workmanship standards.

* 1. Mock-Up Size: [Specify mock-up size.]
	2. Maintenance: Maintain mock-up during construction for workmanship comparison; remove and legally dispose of mock-up when no longer required.
	3. Incorporation: Mock-up may be incorporated into final construction upon Owner’s approval.

C. Pre-installation Meeting: Conduct pre-installation meeting to verify project requirements, substrate conditions, manufacturer’s installation instructions and manufacturer’s warranty requirements.

1.07 DELIVERY, STORAGE & HANDLING

A. Ordering: Comply with manufacturer’s ordering instructions and lead time requirements to avoid construction delays.

B. Deliver, store and handle Altro Tegulis wall panels in accordance with Section 01610 - Basic Material Requirements.

C. Deliver materials in manufacturer’s original, unopened, undamaged containers with identification labels intact.

D. Store materials protected from exposure to harmful weather conditions, at temperature and humidity conditions recommended by manufacturer. Panels should be stored flat and be pre-conditioned a minimum of 24 hours in ambient temperatures similar to the prevailing operational conditions.

E. Store panels in temperature controlled environments. Leave protective blue film on panel until ready to use.

1.08 WASTE MANAGEMENT AND DISPOSAL

A. Deposit all packaging materials in appropriate container on site for recycling or reuse.

B. Avoid using landfill waste disposal procedures when recycling facilities are available.

C. Keep all discarded packaging away from children.

1.09 PROJECT CONDITIONS

A. Temperature Requirements: If storage temperature is below 68F (20C), the Altro Tegulis wall panel must be moved to a warmer place and allowed to reach this temperature before installation. For further information, refer to current Installation Guide.

B. Maintain air temperature and structural base temperature at installation area between 68F (20C) and 80F (27C) for 48 hours before, during and 24 hours after installation.

1.10 WARRANTY

A. Project Warranty: Refer to Conditions of the Contract for project warranty provisions.

B. Manufacturer’s Warranty: Submit, for Owner’s acceptance, manufacturer’s standard warranty document executed by authorized company official. Manufacturer’s warranty is in addition to, and not a limitation of, other rights Owner may have under Contract Documents.

C. Warranty Period for Altro Tegulis shall be 5 years commencing on Date of Substantial Completion, warranty available online at [www.altro.com](http://www.altro.com).

1.11 EXTRA MATERIALS

A. Provide extra materials of product and adhesives in accordance with Section 01780 - Closeout Submittals.

B. Provide [\_\_\_\_\_\_] sq.ft ([\_\_\_\_\_\_\_] m2) of each color, pattern and type material required for project for maintenance use.

C. Provide [\_\_\_\_\_\_] sq.ft ([\_\_\_\_\_\_\_] m2) of extra materials in one piece and from same production run as installed materials.

D. Clearly identify each wall panel and each container of adhesive.

E. Deliver to Consultant, upon completion of the work of this section and store where directed.

**PART 2 PRODUCTS**

* 1. MANUFACTURERS

A. Manufacturer: Altro

1. USA: 80 Industrial Way, Wilmington, MA 01887
Toll-free: 800.377.5597 Fax: 978.694.0433

 E-mail: support@altro.com Web Site: [www.altro.com](http://www.altro.com).

* 1. HYGIENIC WALL COVERINGS
1. Altro Tegulis is homogeneous, 100% pure vinyl, extruded, semi-rigid PVCu sheet, no plasticizers or fillers.

**Acceptable material: Altro Tegulis** (measurements and product weights are approximate): Thickness: 0.10" (2.5 mm); Panel Width: 4’ (1.22m) Panel Height: Either 8’2” or 9’ 10.25” (2.5m or 3m); Weight 4’x 8’2” Panel: 24 lbs (10.7 kg); Weight 4’x 9’10.25” Panel: 28 lbs (12.8 kg).

 **SELECT:**

1. **PANEL SIZE:**  4’ wide x 9’10” (3.0 m) high

 4’ wide x 8’2” (2.5 m) high

2. **PATTERN VISUAL:** SUBWAY TILE - 3” x 12”

 SUBWAY TILE - 4” x 10”

 SUBWAY TILE - 3” x 6”

 STACKED TILE - 3” x 12”

 MOSAIC TILE - 1” x 1”

 MOSAIC TILE - 2” x 2”

 SQUARE TILE - 4” x 4”

 HERRINGBONE

 CHEVRON

 CUSTOM PATTERN and TILE SIZE

1. **PANEL COLOR:** Select your color from the following rages: Altro Whiterock, Altro Whiterock Chameleon, Altro Whiterock Wall Designs - found at [www.altro.com](http://www.altro.com)

Altro Whiterock

3. **INSTALLATION METHOD:** (visuals found at [www.altro.com](http://www.altro.com))

 HALF-LAP (wet and dry areas)

 INTERLOCK (dry areas)

 JOINT-STRIP (wet and dry areas)

2.03 ACCESSORIES

 Including but not limited to:

A. **Joint Strips:** 2-Part Joint Strip (8’ or 10’) – to match panel color

B. **Cut-Tile Transition Strip**: 1**-Part Transition Strip – [G832/25 White only\*]** Length 98.5”

C. **Start and Edge Trims: G833** 1-Part [8’/10’ **White Only**], **A833** 2-Part [8’/10]’- to match panel color

D. **A839/30 Inside Corner Trim:** 1-part trim - 10’ lengths – to match panel color where applicable

E. **Adhesives**: Altro AP600, Altro W39, or Altro W157 as recommended by Altro. **Parabond AP 600 is not recommended for use on existing tile substrates. Adhesive selection and trowel notch is determined by substrate and environmental conditions of the application. Refer to Tegulis Installation Guide for appropriate recommendation.**

 F. **Sanitary Sealant Compounds and Tape Adhesion Promoter:**

.1 Altro Sanitary Sealant – [A806/\*\* color) 10.5 oz Tube

.2 Altro W1650.5 Tape Adhesion Promoter – ½ US Gallon

2.04 SOURCE QUALITY

A. Source Quality: Obtain wall products from a single manufacturer.

**PART 3 EXECUTION**

3.01 MANUFACTURER’S INSTRUCTIONS

A. Compliance: Comply with manufacturer’s product data, including product technical bulletins, product catalog, installation instructions and product label instructions for installation.

3.02 EXAMINATION

A. Site Verification of Conditions: Verify substrate conditions, which have been previously installed under other sections, are acceptable for product installation in accordance with manufacturer’s instructions.

* 1. SUBSTRATE PREPARATION

 A. Walls should be smooth and level. High points must be removed and low points filled with filler intended for the substrate and environmental conditions.

 B. Wall tiles must be fixed firmly to the wall. As long as the tile edges do not protrude, you do not have to skim grout joints.

 C. Surfaces must be permanently dry and free from all substances that may contribute to adhesive bond failure.

 D. Remove loose paint and conduct an adhesive bond test with paint.

 E. Exterior walls must be adequately damp-proofed and insulated.

 F. Dry wall substrates should be paint ready.

3.04 PREPARATION

A. All surfaces must be free from dust and cleaned prior to Altro Tegulis installation. The working environment must also be dust free. Failure to comply with these conditions will reduce the bond strength between the adhesive and substrate, and may cause the Altro Tegulis panels to debond.

B. Very absorbent / porous substrates (particularly plaster finishes and unprimed sheetrock) must have a proprietary sealer e.g. PVA primer or similar, applied to the surface a minimum of 12 hours prior to the installation.

C. All electrical switches, power points etc., should be in a first fix / installation state. All electrical equipment should only be moved or altered by a qualified electrician.

D. All plumbing should have pipe-work removed to a first fix or installation state and “tails” left protruding from the substrate. Altro Tegulis panels can then be drilled and slid over the pipe tails. All holes should be drilled 1/8” (3mm) oversize to allow for expansion, then sealed with Altro Sanitary Sealant. Plumbing should always be done by a qualified plumber.

E. Hot pipes and steam pipes should be insulated and a 1/8” to 1/4” (3-6mm) expansion gap should be created when installing panels around these pipes, then sealed with Altro Sanitary Sealant.

F. All pipes, fixing bolts, etc. extending through the Altro Tegulis panels should have a minimum 1/8” (3mm) expansion gap and be sealed using Altro Sanitary Sealant.

G. If fitting to doorframes, these must be in place prior to installation of Altro Tegulis.

H. Prior to installation, it is advisable to complete any painting which comes in contact with Altro Tegulis, as sealant used at junctions is non-paintable.

I. Panels should be stored flat and be pre-conditioned a minimum of 24 hours in ambient temperatures similar to prevailing operational conditions.

J. The panels must be stored on a level flat surface off the ground (risk of condensation on the panels if stored on damp surfaces). Storage on uneven surfaces could cause the panels to distort prior to installation.

K. First, check the room using a 6’ (2 m) level to ensure all walls are flat, paying particular attention to the corners, window reveals, and door entrances. These need to be inspected to ensure they are free of any debris or irregularities, which could prevent the panels laying flat to the substrate after the adhesive has been applied and the panel installed.

* 1. INSTALLATION
1. Hygienic Wall Installation: Install Altro Tegulis in accordance with the current published Installation Guide. All joints should be joined by approved methods as detailed in the installation guide. Failure to install Altro Tegulis in accordance with recommended procedures will void the Altro Limited Product Warranty.

3.06 CLEANING

**Note: Once all panels and joints are installed, remove protective film and clean all surfaces down with antistatic solution or antistatic wipes. This is required as the panel may have static build up and any dust in the atmosphere will adhere to the surface of the panel.**

A. Altro Tegulis can be cleaned with a diluted soap/detergent solution, such as Altro 44 Cleaner.

B. When cleaning the Altro Tegulis surface, we recommend the temperature of water does not exceed 140° F (60° C).

C. Use cleaning materials compliant with USP regulations, including synthetic, non-shedding mops and specified chemical solutions. Manual unidirectional strokes are recommended to avoid spreading contaminants during cleaning process. Sanitized water is also necessary to thoroughly rinse surfaces.

D. To reduce the buildup of static, cleaning the panels with an anti-static solution is recommended.

E. Stubborn stains use AltroClean 44 cleaner or equivalent alkaline cleaner.

**Specifier Note:** If a construction waste separation and disposal workplan is incorporated as part of the project, ensure that this section makes reference to how the excess material can be recycled or otherwise disposed of. Avoid sending construction waste to landfill sites if alternative means of disposal are available.

 F. Remove construction debris from project site and legally dispose of debris.

END OF SECTION