

Paragraph Spec: delete paragraph spec when using 3-Part Scope.

Cementitious Sheathing Insulation: Provide ProGuard by T. Clear Corporation in accordance with manufacturer installation requirements and the following:

1. Nominal ¼ inch cement backer board face
2. [XPS] or [EPS] insulation with a minimum thickness of [1.75", 2.25", 2.75", 3.25" and 4.25"]
3. Meeting or exceeding manufacturers published performance standards.

[] select one option

SECTION 06 16 63

Cementitious Sheathing Insulation

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Non-structural concrete faced sheathing + insulation board for masonry, wood and steel walls.
- B. Accessories.

1.02 RELATED SECTIONS

- A. Division 06: Pertinent sections specifying exterior sheathing.
- B. Division 07: Pertinent sections specifying thermal insulation.

1.03 REFERNECES

- A. ASTM C518 - Standard Test Method for Steady State Heat Flux Measurements and Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus
- B. ASTM D1621 – Standard Test Method for Compressive Properties of Rigid Cellular Plastics
- C. ASTM C272 – Standard Test method for Water Absorption of Core Materials for Structural Sandwich Constructions
- D. ASTM E96 – Standard Test Methods for Water Vapor Transmission of Materials
- E. ASTM D696 – Standard Test Method for Coefficient of Thermal Expansion of Plastics
- F. ASTM C578 – Standard Specification for Rigid Cellular Polystyrene Insulation
- G. ASTM D2842 – Standard Test Method for Water Absorption of Rigid Cellular Plastics
- H. ASTM D3273 – Standard Test Method for mold and Mildew Resistance
- I. ASTM D2394 – Standard Test Method for Compressive Strength (Indentation)

- J. ASTM C947 - Standard Test Method for Flexural Strength
- K. ASTM D1037 – Standard Test Method for Linear Variations with Change in Moisture to Air Dry
- L. ASTM E84 - Standard Test Method for Surface Burning Characteristics
- M. ASTM D1037 – Standard for Fastener Pull Through
- N. NFPA – 285 – Standard Method of Test for the Evaluation of Flammability Characteristics of Exterior No-load Bearing Wall Assemblies Containing Combustible Components Using the Intermediate Scale Multi-Story Test Apparatus, 2006 Edition.

1.04 QUALITY ASSURANCE SUBMITTALS

- A. Installer Qualifications: Company approved by manufacturer for the installation of specified product within a minimum of five (5) years of exterior sheathing application experience.
- B. All products shall be free of formaldehyde, hazardous air pollutants and cancer causing chemicals in accordance with California Proposition 65.

1.05 SUBMITTALS

- A. Product Data: All products being used in the assembly of the sheathing system.
- B. Installer Approval: Manufacturer's acceptance of applicator.
- C. Installation Data: Indicate procedures and process.
- D. Warranty: Submit manufacturer's standard warranty certificate sample.

1.06 ENVIRONMENTAL REQUIREMENTS

- A. Install in accordance with manufacturer's technical requirements.
- B. Re-schedule installation when rain, snow or abnormal site conditions are expected.

1.07 WARRANTY

- A. Correct defective Work within a two-year period after the date of installation.
- B. Installer shall inspect materials delivered to the site and notify manufacturer in writing of materials subjected to replacement, irregulars and panels requiring factory inspection.
- C. For warranty repair work, remove and replace sheathing prior to exterior finish application.

PART 2 – PRODUCTS

2.01 MANUFACTURERS

- A. Provide one of the following manufacturers, meeting specified performance requirements:
 - 1. T. Clear Corporation, 3255 Symmes Road, Hamilton, OH 45015
Phone: 800-544-7398 www.tclear.com

2. Substitutions: In accordance with Division 1 – Substitutions.

2.03 MATERIALS

- A. Exterior Cementitious: Nominal ¼ inch thickness face
- B. Sheathing Sizing: 36 inch x 96 inch
- C. Insulation Thickness: **Select one of the following [1.75", 2.25", 2.75", 3.25" and 4.25"]**
- D. Fastening Screws: Climacoated weather resistant, 5/8 inch pancake head with hex or star drive Head. Nominal ¼ inch, with length of 3 inch to 6 inch
- E. Waterproofing Compound: Manufacturer approved fiberglass mesh tape and waterproofing compound.
- D. Physical Properties:

Util-A-Crete Concrete Skin		
Performance Property	Test Method	Value
Compressive Strength-psi	ASTM D2394	≥ 2600
Flexural Strength-psi	ASTM-C947	≥ 1500
Linear Variations with change in Moisture to air dry (50% R.H., 73 ° F	ASTM D-1037	
Width		0.02%
Length		0.02%
Surface Burning Characteristics		
Flame Spread	ASTM-E84	5
Smoke Developed	ASTM-E85	0
Weigh per Sq.Ft. (lbs)		1.98
Fastener Pull Through		≥ 195 lbs.
K-Factor		1.6
R-Factor		0.16

[Option 1: XPS Type Insulation] [Specifier: Delete if EPS insulation option is selected]

Dow Extruded Styrofoam Insulation (XPS)

Compressive Strength - psi		25
R Value per inch- (75 deg. Mean temp)		5
Water Absorption (% by volume Max)		0.30%
Water Vapor Permeance (Perm)1-1/2" & 2"		<0.6
Flame Spread Styrofoam		5
Smoke Developed Styrofoam		165
ASTM C 578		Type X

[Option 2: EPS Type Insulation] [Specifier: Delete if XPS insulation option is selected]

Expanded Polystyrene Insulation (EPS)

Density - lbs/c.f.		1.8 Min
Compressive Strength - psi		25
R Value per inch- (75 deg. Mean temp)		4.35
Water Absorption (% by volume Max)		<2%

Water Vapor Permeance (Perm) – 1-1/2” and 2”		<0.6
Flame Spread EPS @4” Thick		<25
Smoke Developed EPS @4” Thick		<450
ASTM C 578		Type IX

PART 3 – EXECUTION

3.01 EXAMINATION

- A. Inspect wood, steel and masonry surfaces are plumb, level and meets manufacturer installation requirements.
- B. Verify work has sufficiently progressed to allow proper installation of sheathing. Do not proceed with installation until conditions are acceptable. Installation deems acceptance of on site conditions.

3.02 INSTALLATION

- A. Open and inspect sheathing for irregularities prior to installation. Notify manufacturer in writing of defective materials.
- B. Install in accordance with manufacturers written guidelines for wood, steel and masonry application.
- C. Fasten sheathing to using manufacturers recommended screws, adhesive and other accessories.
- D. Seal all joints and seams with fiberglass mesh tape embedded in manufacturer approved waterproofing compound.
- E. Waterproof all screws with waterproofing compound.

3.05 FIELD QUALITY CONTROL

- A. Protect final surfaces from damage, water, rain and contamination.

END OF SECTION