



EcoStud® Recycled Plastic Furring Specifications

SECTION _____ - NON-STRUCTURAL PLASTIC FURRING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Non-load-bearing recycled plastic furring systems for interior gypsum board assemblies.
- B. Related Requirements:

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. LEED Submittals and statements:
 - 1. Product Data for Credit MR 4.1 and credit MR 4.2: For products having recycled content, documentation indicating percentages by weight of postconsumer and pre-consumer recycled content. Include statement indicating cost for each product having recycled content.
 - 2. Product Data for Credit EA1: for products providing superior thermal performance and sealing the building envelope when specified with closed cell spray foam insulation.
 - 3. Product data for Materials & Resources credits 5.1 and 5.2 – Regional Materials: 10% & 20% Extracted, Processed & Manufactured Regionally may be used if the product is constructed within 500 miles of Monteville Ohio.

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4. Recycled plastic provides greater thermal efficiency than steel when used to fur exterior walls.
5. EcoStud® products are inherently mold and mildew resistant and provide a healthier living environment.
6. When used in a flood prone environment the system will be able to be salvaged after flood damage with just the drywall needing to be replaced. If waterproof drywall is used simply wash the building and let dry. This will significantly reduce resources and energy used when rebuilding/recovering from flood damage.

1.4 INFORMATIONAL SUBMITTALS

- A. Evaluation Reports: Screw pullout test from EcoStud LLC.
- B. Construction detail: Detail drawings, 10-3670 through 10-3782.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Physical properties of the recycled plastic resin used to produce the non-structure recycled plastic furring elements: Tensile strength > 6,000 PSI ASTM D 638-08, Izod Impact 6 – 12 ASTM D 256, Flame Spread Log 1 ASTM E162, Limited Oxygen Index LOI 48 ASTM D2843, Maximum Smoke Density Dm 280 ASTM E662, Screw pull-out value >100 Lbs SPP Internal Standard, Thermal Conductivity .19 W/mK, Acoustical Velocity 1920 m.min, Impedance 3.27 MRayls, Attenuation 11.2 dB/cm, 5 MHz, Density 1.38 gm/cm³
- B. Bond characteristics of adhesive: Adhesive shall exhibit t-pull bond strength of >50 psi. Preferred failure mode is cohesive.

2.2 FURRING SYSTEMS

- A. Recycled Content of Plastic Products: 100% post industrial recycled content with varying amounts of Post-consumer recycled content. Where needed for specific LEED accreditation 100% post consumer content may be specified, if specified it shall be called out and the contractor and manufacturer shall be made aware through signed documentation.
- B. Flanged Furring Channel: With pre-punched web, typical profile thickness of .090 inch, wall attachment flange of .850 inch, screw face of 1.500 inch and 3.500 inch depth.
- C. Z-Shaped Furring: With non-slotted web, typical profile thickness of .090 inch, wall attachment flange of >1.375 inch and depth required to fit insulation thickness indicated.

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2.3 AUXILIARY MATERIALS

- A. General: Provide auxiliary materials that comply with referenced installation standards.
 - 1. Fasteners for Recycled Plastic Furring: Of type, material, size, corrosion resistance, holding power, and other properties required to fasten recycled plastic members to substrates.
 - 2. Adhesives: OSI QB-300, Chemlink M-1, Chemlink Build Secure, Chemlink Wall Secure or architect approved equal
 - 3. Sealants: 30 year Siliconized Arcylic Sealant, Chemlink M-1, 100% pure silicone or architect approved equal.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and substrates, with Installer present for compliance with requirements and other conditions affecting performance of the Work.
- B. Clean by scraping any mortar or other protrusion from the substrate. Any surface dirt, dust or effervescence shall be removed through brushing or other acceptable means.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

- A. Installation Standard: _____
- B. Install supplementary framing, and blocking to support fixtures, equipment services, heavy trim, grab bars, toilet accessories, furnishings, or similar construction.
- C. Do not bridge building control and expansion joints with recycled plastic furring members. Fur both sides of joints independently.
- D. Direct Furring with flanged furring channel:
 - 1. Attach to concrete or masonry with a minimum of 10 square inch coverage of adhesive using either a continuous bead or evenly spaced deposit technique per 8 foot segment and stub nails, screws designed for masonry attachment, or powder-driven fasteners spaced 16 or 24 o.c. per design specification.
 - 2. Interior corners shall be constructed using EPS foam in conjunction with EcoStud® as depicted in construction detail 10-3699 available though EcoStud LLC.
 - 3. Exterior corners shall be constructed using EPS foam in conjunction with EcoStud® as detailed in construction detail 10-3677 available though EcoStud LLC.

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4. Install insulation as specified in Division 07 Section "Thermal Insulation". If 2 pound density spray foam is specified installer shall be trained in the application by EcoStud LLC and shall provide written proof of such training..

E. Direct Furring with Z-Furring Members:

1. Erect insulation, specified in Division 07 Section "Thermal Insulation," vertically and hold in place with Z-furring members spaced 16 or 24 o.c. per design specification.
2. Except at exterior corners, securely attach narrow flanges of furring members to wall with a minimum of 10 square inch coverage of adhesive per 8 foot section using either a continuous bead or evenly spaced deposit technique and concrete stub nails, screws designed for masonry attachment, or powder-driven fasteners spaced 16 inches o.c.
3. At exterior corners, attach wide flange of furring members to wall with short flange extending beyond corner; on adjacent wall surface, screw-attach short flange of furring channel to web of attached channel per detail 10-3671. At interior corners, space second member no more than 12 inches from corner and cut insulation to fit.

F. Installation Tolerance: Install each framing member so fastening surfaces vary not more than 1/8" 3.2 mm from the plane formed by faces of adjacent framing.

G. Gypsum finish: 5/8 inch thick gypsum shall be used when 24 inch centers are specified. 1/2 inch thick gypsum shall be used only if 16 inch centers are specified.

1. Gypsum shall be attached using coarse thread black oxide coated common drywall screws 1/4 inch longer than the total thickness of the gypsum and furring member thickness combined.

END OF SECTION _____