SECTION 09 51 00

EnvirocousticTM Wood Wool Designs – Acoustic Ceiling Panels

PART 1 GENERAL

1. SECTION INCLUDES
	1. EnvirocousticTM Wood Wool Designs acoustic ceiling panels.
2. REFERENCES
	1. American Society for Testing and Materials (ASTM)
		1. ASTM C423: Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method
		2. ASTM D3273: Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber
		3. ASTM E84: Standard Test Method for Surface Burning Characteristics of Building Materials
		4. ASTM E795: Standard Practices for Mounting Test Specimens During Sound Absorption Tests
		5. ASTM E1477: Standard Test Method for Luminous Reflectance Factor of Acoustical Materials by Use of Integrating-Sphere Reflectometers
	2. California Department of Public Health (CDPH)
		1. CDPH Standard Method V1.2: Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers
	3. Cradle to Cradle Products Innovation Institute Inc.
		1. The Cradle to Cradle Certified® Products Program
	4. Forest Stewardship Council® (FSC)
	5. HPD Collaborative
		1. Health Product Declaration (HPD)
	6. International Code Council (ICC)
		1. ICC IBC: International Building Code
	7. International Living Future Institute (ILFI)
		1. Declare Label
	8. National Fire Protection Association (NFPA)
		1. NFPA 286: Standard Method of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth
3. SUBMITTALS
	1. Product Data: Manufacturer’s data sheet and installation instructions.
	2. Samples: Submit, at minimum, a 4” x 4” sample for each type of specified wood fiber ceiling panel.
	3. Test Reports: Upon request, submit certified test reports to verify specified product performance.
4. MAINTENANCE MATERIAL
	1. Extra Stock Materials:
		1. Deliver no less than two percent (2%) / (Other) of each type, color, and pattern of material.
		2. Extra materials shall remain in the manufacturer’s original packaging and given to the building owner upon substantial completion of the work. Store extra materials per instructions as described in storage and handling requirements.
5. SUSTAINABLE MATERIALS
	1. General:
		1. Manufacturer preference will be given to products meeting the following sustainability criteria.
	2. Cradle2Cradle Certified®:
		1. Product to be full-scope certified to Cradle2Cradle Certified Version 4.0.
	3. Responsible Sourcing:
		1. Forest Stewardship Council (FSC) Certification: For all products containing wood, provide proof of FSC certification. Preference will be given to products with FSC Controlled Wood or FSC Mix labels.
	4. Material Transparency:
		1. Health Product Declaration (HPD): Provide a complete HPD in compliance with the HPD Open Standard with disclosure to 100ppm.
		2. Declare Label: Provide a published Declare Label from the International Future Institute (ILFI) with a “Red List Free” or “LBC Compliant” designation.
	5. Low-Emitting Materials:
		1. Provide third-party verified emissions data demonstrating compliance with CDPH Standard Method v1.2.
	6. LEED V4/V4.1 Compliance:
		1. Products must meet requirements for relevant LEED credits, including but not limited to Material & Resources (MR) and Indoor Environmental Quality (EQ).
6. QUALITY ASSURANCE
	1. Qualifications:
		1. Manufacturers: Provide cementitious wood fiber acoustical panels from a single manufacturer.
		2. Installers: Utilize an installer having demonstrated experience on projects of comparable size and complexity.
	2. Performance Requirements:
		1. Surface Burning Characteristics: Acoustical panels to perform as specified when tested in accordance with ASTM E84. Acoustical panel surface burning performance should comply with the International Building Code and other local building code requirements.
		2. Acoustical Characteristics: Acoustical panels to perform as specified when tested in accordance with ASTM C423.
7. DELIVERY, STORAGE, AND HANDLING
	1. Storage and Handling Requirements:
		1. Handle products carefully to avoid damage or chipping edges.
		2. Store products in a clean, cool, dry place, and out of direct sunlight.
		3. Store products in a space where the ambient temperature and humidity conditions are being maintained at the levels indicated for the project when occupied for its intended use.
8. SITE CONDITIONS
	1. Ambient Conditions: Maintain ambient temperature and humidity conditions at levels indicated for the project when occupied for its intended use.
	2. Existing Conditions: Do not install cementitious wood fiber panels until space is enclosed and weather proofed, wet work is completely dry, and work above ceilings is complete.
9. WARRANTY
	1. Provide manufacturer’s written product warranty per Section 01 77 00 – Closeout Procedures.

PART 2 PRODUCTS

(Specifier Note: Red colored text below requires you to select an option before this specification can be completed. Options in red text are bound by parenthesis. Additional EnvirocousticTM Wood Wool information can be found on our website [<https://www.acousticalsurfaces.com/envirocoustic-wood-wool/>](http://www.asiarchitectural.com/products/strandtec))

1. MANUFACTURERS
2. Acoustical Surfaces, Inc., 123 Columbia Court N, Chaska, MN 55318.
Phone: 952-448-5300. Fax: 952-448-2613. Website: www.acousticalsurfaces.com
3. DESCRIPTION
4. Product: EnvirocousticTM Wood Wool Designs acoustic ceiling panels as manufactured by Acoustical Surfaces, Inc.
5. Product Options:
	1. Panel Composition: Wood fiber bonded with inorganic binder, Portland cement.
	2. Panel Thickness: (1”) / (1” FSC) / (1” Microstrand) / (1-3/8”) / (2”)
	3. Panel Size: (24” x 24”) / (24” x 48”) / (Custom sizes up to 24” x 96”)
	4. Designs Pattern: (Latitude) / (Longitude) / (Grid) / (Arrow) / (Downhill) / (Uphill) /
	 (Crossed) / (Askew) / (Panes) / (Twigs) / (Metro) / (Strata) /
	 (Current) / (Drizzle) / (Crackle) / (Skew)
	5. Edge Detail: (Bevel)
	6. Finish: (Primed Clear) / (Primed White) / (Painted Custom)
	7. Mounting Method: Direct attachment
6. Product Performance:
	1. Acoustical Performance
		1. Noise Reduction Coefficient (NRC) per ASTM C423

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| --- | --- | --- | --- | --- |
| Thickness | 1” & 1” FSC | 1” Microstrand | 1-3/8” | 2” |
| A-Mount  | 0.45 | 0.60 | 0.55 | 0.75 |
| D-20 Mount (1” Airspace) | 0.50 | 0.50 | 0.60 | 0.75 |
| C-25 Mount (1” Acoustical Backer) | 0.90 | 0.85 | 0.80 | 0.90 |
| C-50 Mount(2” Acoustical Backer) | 0.85 | 0.95 | 0.90 | 0.95 |

* 1. Surface Burning Performance
		1. Fire Rating per ASTM E84: Class A.
		2. Contribution to Room Fire Growth per NFPA 286: Passed.
	2. Material Property Performance
		1. Luminous Reflectance per ASTM E1477: Primed Clear – 50. Primed White – 76.
		2. Fungal Growth per ASTM D3273: 10/10 Front/Back – No Defacement (100% clear of fungal growth).
		3. Microbial Growth per Greenguard Microbial Growth Test: 4 – Highly Resistant to Mold Growth.
	3. Sustainability
		1. VOC Emission levels per CDPH Standard Method V1.2: Passed.
		2. Declare Label meeting LBC Red List Free with 100% disclosure at 100ppm.
		3. HPD v2.3 with 100% disclosure at 100ppm.
		4. Product is Cradle to Cradle Certified at the Bronze level. As part of achieving certification, it received a Silver rating for Material Health.
		5. Product is certified as FSC Mix or FSC Controlled Wood for 1” thickness.
1. ACCESSORIES
2. Accessories with Options:
	1. Custom paint (factory applied) / (field applied) if “Painted Custom” finish option selected.
	2. CFAB Acoustical Backer: (None) / (1”) / (2”)

PART 3 EXECUTION

1. EXAMINATION
2. Verification of Conditions**:**
	1. Inspect installation area and conditions under which work is to be performed for compliance with all manufacturers’ environmental requirements.
	2. All wet work in the installation area must be complete, cured, and dry prior to installation.
	3. Work above ceilings shall be complete, inspected, and accepted before ceiling work begins.
3. INSTALLATION
4. Comply with manufacturer’s instructions and recommendations for installation of acoustical wall and ceiling panels and with industry standards.
5. CLEANING
6. Clean surfaces of ceiling panels per manufacturer’s instructions.
7. Remove and replace damaged or discolored material and material that cannot be properly cleaned.
8. PROTECTION
9. Protect installed work from damage due to subsequent construction activity, including temperature and humidity limitations and dust control, so that the work will be without damage and deterioration at the time of acceptance by the owner.

END OF SECTION