SECTION 09 51 13

Echo EliminatorTM Ceiling Panels

**PART 1 GENERAL**

1. **SECTION INCLUDES**
	1. Echo EliminatorTM bonded acoustical cotton ceiling panels and accessories for ceiling installation.
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 C518: Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus
		3. ASTM C1338: Standard Test Method for Determining Fungi Resistance of Insulation Materials and Facings
		4. ASTM E84: Standard Test Method for Surface Burning Characteristics of Building Materials.
		5. ASTM E795: Standard Practices for Mounting Test Specimens During Sound Absorption Tests
		6. 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 V1.2-2017: Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers
	3. International Code Council (ICC)
		1. ICC IBC: International Building Code
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 acoustical panel.
	3. Test Reports: Upon request, submit certified test reports to verify specified product performance.
4. **MAINTENANCE MATERIAL**
5. Extra Materials:
	* 1. Extra materials shall be from the same production run as the original materials.
		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.
6. **QUALITY ASSURANCE**
	1. Qualifications:
		1. Manufacturers: Provide acoustical ceiling 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 panels carefully to avoid any damage.
		2. Store panels indoors in a clean, cool, dry place, and out of direct sunlight.
		3. Store panels 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:
		1. Maintain ambient temperature and humidity conditions at levels indicated for the project when occupied for its intended use.
		2. Do not install products under environmental conditions outside manufacturer’s recommended limits.
	2. Existing Conditions: Do not install ceiling 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 Echo Eliminator Ceiling Panel information can be found on our website <https://www.acousticalsurfaces.com/>)

1. **MANUFACTURERS**
	1. Acoustical Surfaces, Inc., 123 Columbia Court N, Chaska, MN 55318.
	Phone: 952-448-5300. Fax: 952-448-2613. Website: www.acousticalsurfaces.com
2. **DESCRIPTION**
	1. Product: Echo EliminatorTM Ceiling Panels by Acoustical Surfaces, Inc.
	2. Product Options:
		1. Panel Composition: Bonded acoustical cotton
		2. Panel Density: (3 lb. pcf) / (6 lb. pcf)
		3. Panel Thickness: (1”) / (2” – 3 lb. pcf only)
		4. Panel Size: (24” x 48” – Standard) / (Custom sizes up to 48” x 96” – minimum
		 quantities may apply)
		5. Edge Detail: Square
		6. Color: (Black) / (Graphite) / (Light Gray) / (White) / (Beige) / (Marble
		 Blue)
		7. Mounting Method: (Adhesive) / (Stick Pins)
	3. Product Performance:
		1. Acoustical Performance
			1. Noise Reduction Coefficient (NRC) per ASTM C423

|  |  |  |  |
| --- | --- | --- | --- |
| Thickness/Density | 1” – 3 lb. pcf | 1” – 6 lb. pcf | 2” – 3 lb. pcf |
| A Mount | 0.80 | 0.85 | 1.15 |

* + 1. Surface Burning Performance
			1. Fire Rating per ASTM E84: Class A
		2. Material Property Performance
			1. Light Reflectance per ASTM E1477: White – 89; Light Gray – 37
			2. VOC Emissions per CDPH Standard Method V1.2-2017: Pass
			3. Fungal Growth per ASTM C1338: Pass (no fungal growth)
			4. Thermal Resistance (R-Value) per ASTM C518: 1” – 3.8; 2” – 7.5
1. **ACCESSORIES**
2. Attachment hardware for ceiling panels as specified by manufacturer for installation.

**PART 3 EXECUTION**

1. **EXAMINATION**
	1. Verification of Conditions:
		1. Examine surfaces scheduled to received furred out or directly attached acoustical units for unevenness, irregularities or dampness that would affect quality and execution of work.
		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.
2. **INSTALLATION**
3. Comply with manufacturer’s instructions and recommendations for installation of ceiling panels and with industry standards.
4. **CLEANING**
5. Clean surfaces of ceiling panels per manufacturer’s instructions or recommendations.
6. Remove and replace damaged or discolored material and material that cannot be properly cleaned.
7. **PROTECTION**
8. 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