 SECTION 09800

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Acoustical Fulfillment Barrel Diffusers

ACOUSTICAL TREATMENT.

1. GENERAL
	1. SECTION INCLUDES
		1. Acoustic barrel diffusers
	2. RELATED SECTIONS
		1. Section 05310 - Steel Decking: Acoustical steel deck.
		2. Section 09111 - Non-Loadbearing Metal Framing: Ceiling suspension systems.
		3. Section 09260 - Gypsum Board Assemblies.
		4. Section 09511 - Suspended Acoustical Ceilings: Conventional grid-supported acoustic ceilings.
		5. Section 09512 - Adhesive Applied Acoustical Ceilings.
		6. Section 09900 - Paints and Coatings.
	3. REFERENCES
		1. ASTM C 423 - Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method; 2000.
		2. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2000a.
	4. PERFORMANCE REQUIREMENTS
		1. Acoustical Absorption: Perform testing in accordance with ASTM C 423, Type A mounting method unless otherwise specified.
		2. Flame Spread Rating: Provide all components with Class A flame spread rating when tested in accordance with ASTM E 84, unless otherwise specified.
	5. SUBMITTALS
		1. Submit under provisions of Section 01300.
		2. Product Data: Manufacturer's data sheets on each product to be used
		3. Optional Selection Samples: For each product specified, provide an optional sample representing actual product
	6. QUALITY ASSURANCE
		1. Manufacturer Qualifications: Minimum 5 years of experience in producing acoustical products of the types specified herein.
		2. Installer Qualifications: Acceptable to the manufacturer of the acoustical products being installed.
		3. Dimensional Tolerances of Finished Units: Plus or minus 1/16 inch for the following:
			1. Thickness.
			2. Edge straightness.
			3. Overall length and width.
			4. Squareness from corner to corner.
			5. Chords, radii and diameters.
	7. DELIVERY, STORAGE, AND HANDLING
		1. Protect acoustical products from moisture during shipment, storage, and handling.
		2. Store products in manufacturer's unopened packaging until ready for installation.
			1. Store materials flat, in dry, well-ventilated space.
			2. Do not stand panels on end.
			3. Protect edges from damage.
			4. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.
	8. PROJECT CONDITIONS
		1. Do not begin installation of acoustical products until building has been enclosed and environmental conditions approximate those that will prevail when building is occupied.
		2. Environmental Requirements: Do not install panels until wet work, such as concrete and plastering, is complete; the building is enclosed; and the temperature and relative humidity are stabilized at 60 – 80 degrees F (16 – 27 degrees C) and 40% to 50%, respectively.
2. PRODUCTS
	1. MANUFACTURERS
		1. Acceptable Manufacturer: Acoustical Fulfillment, LLC; 706 Challenger Way Suite 3, Forked River, NJ 08731. Tel: (866) 749-0025. Email: AskUs@acousticalfulfillment.com. www.acousticalfulfillment.com
		2. Substitutions: Not permitted.
		3. Requests for substitutions will be considered in accordance with provisions of Section 01600.
		4. Provide all acoustical products specified herein by a single manufacturer.
	2. ACOUSTIC BARREL DIFFUSERS
		1. Barrel Diffusers: Acoustical Fulfillment Barrel Diffusers; 0.125” thermoformed co-polymer core (standard). Add fiberglass backing of 1-1/2 pcf (24 kg/cu m) for a low frequency diffuser and an additional stiffener for a reflective diffuser. All diffusers come in a textured white finish, custom color, or fabric wrapped.
			1. Standard Diffuser: NRC 0.20.
			2. Low Frequency Diffuser: NRC 0.35.
			3. Reflective Diffuser: NRC 0.05.
			4. Size, small diffusers: Custom size up to 4’ x 4’
			5. Size, large diffusers: Custom size up to 4’ x 8’.
			6. Finish Material: Textured white.
			7. Finish Material: Custom Color.
			8. Finish Material: Fabric wrapped.
			9. Mounting: Two-part mounting system.
			10. Mounting: Direct Mount.
			11. Mounting: Lay-in grid.
3. EXECUTION
	1. EXAMINATION
		1. Do not begin installation until substrates have been properly prepared.
		2. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
	2. PREPARATION
		1. Clean surfaces thoroughly prior to installation.
		2. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
	3. INSTALLATION
		1. Install acoustical units in accordance with manufacturer's instructions.
	4. PROTECTION
		1. Protect installed products until completion of project.
		2. Touch-up, repair or replace damaged products before Substantial Completion.

**END OF SECTION**