

SUGGESTED SPECIFICATION

MODULAR ABSORPTION PANELS



Commercial Acoustics
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A DIVISION OF METAL FORM MANUFACTURING

GENERAL

Furnish and install modular Factory Fabricated Absorption Panels as shown on plans and as specified. Absorption panels and components shall be the product of Commercial Acoustics Division of Metal Form Manufacturing. Any change in this specification must be submitted to and approved by the architect/engineer, both in writing, at least 10 days prior to the bid due-date.

MATERIALS AND CONSTRUCTION

PANEL FACINGS shall be fabricated of 22 gauge zinc coated steel, perforated with 3/32" holes on 3/16" staggered centers and suitably stiffened with transverse framing members. There shall be a minimum of two framing members on Panels up to 8' in length. Panels over 8' in length shall have 3 framing members.

FRAMING MEMBERS shall be manufactured from 18 gauge zinc coated steel. Each framing member shall be supplied with two 1/4"-20 blind threaded inserts for attachment of Panel to mounting bracket. (Inserts must meet the following specifications: MIL Spec S.901C (Navy), ASTM-B117, and MIL-B-202C. Tensile strength shall be at least 220 pounds per insert in 20 gauge steel.) 3/4" long 1/4"-20 cadmium bolts shall be supplied with lock washers for attachment of the 10 gauge wall or ceiling brackets.

ACOUSTICAL INSULATION shall be 2" thick fine fibered, fibrous glass having a density of not less than 1.5 lbs./cu. ft. and meeting Federal Specification H.H. 558, Form B, Type 1, Class 7.

FINISHES

Standard finish is a white thermal setting powder coating. Colors may be specified from manufacturer's standard color chart. Optional finishes include mill finish galvanized steel, mill finish aluminum, anodized aluminum and #304 stainless steel in either a 2B or #4 finish.

ACCESSORIES

Four support brackets per panel shall be provided for either ceiling or wall mounting, as required.

In special applications, such as swimming pools, institutional kitchens, clean rooms, etc., acoustical insulation shall be sealed in flame guard polyethylene. Fiberglass cloth wrap shall be used for outdoor and subway station treatments. In areas of high corrosion, .032" aluminum shall be substituted for the galvanized steel attachments; inserts, etc., shall be stainless steel; all other requirements shall remain the same. Brackets for wall panels shall be 316 stainless steel.

ACOUSTICAL PERFORMANCE

Absorption panel ratings shall be determined in accordance with ASTM specifications C423-81a, or latest versions thereof. The test set-up and procedure shall be such that all effects due to flanking transmission, standing waves and test chamber sound absorption are eliminated. Data shall be presented for tests conducted using current production samples.

The absorption panel assembly, when tested in accordance with ANSI/ASTM C423-81a and E795, or the latest version thereof, shall have minimum absorption coefficients as follows:

SOUND ABSORPTION CHARACTERISTICS

Octave Band	2	3	4	5	6	7	
Center Frequencies, Hz	125	250	500	1000	2000	4000	NRC
Absorption							
Coefficients							
Mounting Type "A"	.51	.69	.94	1.01	.94	.86	.90
Mounting Type "D"	.55	.77	1.00	.99	1.00	.90	.95

FIRE HAZARD RATING

A flammability test of the poly wrap for the acoustical fill shall be provided, if this option is required. This test shall be conducted per ASTM-D568 and shall demonstrate that the material is self-extinguishing in 3-5 seconds, primarily by melting and dripping. In areas where flammability is a serious consideration and for outdoor applications, a fiberglass cloth wrapping of #1526 cloth is recommended.

WARRANTY

Plenum manufacturer shall warrant that when panels are installed in a workmanlike manner in strict accordance with these specifications and manufacturer's instructions, panels shall meet the acoustical performance specified. Panel components shall be furnished clean, well made and free of any defects which may adversely affect appearance, serviceability, and performance.

CERTIFICATION

The manufacturer shall supply certified test data on transmission loss and absorption coefficients to the architect/engineer, in writing, at least 10 days prior to bid due-date. Test data shall be for a standard product. All rating tests shall be conducted by a nationally recognized acoustic testing laboratory in their facility, utilizing the same panels. This facility shall be open to inspection at the request of the architect/engineer. The testing laboratory shall be totally independent from the manufacturer. Data obtained in the manufacturer's test lab will not be acceptable unless substantiated by test reports conducted by a nationally recognized acoustic testing laboratory.

The manufacturer shall furnish proof, found to be satisfactory to the architect/engineer, of having manufactured similar plenums for at least five (5) years prior to this installation.