

## **PART 1 . GENERAL**

### **1.01 Scope**

- A. Include all labour, materials, and plant as required for the fabrication and delivery of acoustical ceiling panels for the system described and specified herein.

### **1.02 Related Work by Other**

- A. Gypsum board partition, and wall and ceiling structure.
- B. Paint finish of ceiling surface behind and between panelling.
- C. Lighting fixtures and electrical services and connections.
- D. Air handling, heating and air conditioning, plumbing and other mechanical services as required.
- E. Public address system, speakers, wiring, support and installation.
- F. Life safety equipment.
- G. Ceilings by others not included in this scope.

### **1.03 Quality Assurance**

- A. Manufacturer & Installer: Firm manufacturing the specified product shall have adequate capacity required for projects listed and have successfully completed similar projects for a period of not less than five years. The installer should be approved by the manufacturer as qualified to perform work required.
- B. Reference Standards: Conform to all governing laws, building codes, and the following performance criteria:
  - 1. Fire Performance Characteristics: Provide ceiling panels with surface-burning characteristics as determined by testing panel components in accordance with CAN/ULC S102 test procedures (building code requirements may necessitate composite panel testing using identical materials and construction representative of a typical installation, using the specified finish. CAN/ULC S102 testing must be performed by a testing organization acceptable to authorities having jurisdiction.

Classification	Class "A" or "1"
Flame Spread:	25 or less
Smoke Developed:	450 or less

- 2. Acoustical Performance Characteristics: Provide ceiling panels with acoustical absorption characteristics as indicated in Part 2, which have been determined by

testing fully assembled production material in accordance with ASTM C-423 (Type "E400" mounting as defined by ASTM E-795) by a testing organization acceptable to authorities having jurisdiction. Approved testing organization must be independent of the manufacturer.

3. Ceiling panels shall have toxicity characteristics which have been determined by testing full assemblies (component tests are not acceptable) of identical materials and construction in accordance with section 27-348 of the New York State uniform fire prevention and building code MEA division.

MEA Acceptance Number MEA 327-00-M

#### **1.04 Submittals**

- A. Submit to the Architect of record, three (3) complete sets of CAD generated shop drawings prepared by the manufacturer showing all necessary details and dimension requirements which will subsequently be field verified and revised as required by the Architect.
- B. Samples: Submit (3 sets) manufacturers standard 8" (200mm) x 11" (280mm) sample panels of each type of product as specified in Part 2 to the Owner for approval. Product shall be original production material in fabric finish specified for final use.
- C. Certification: Submit to the owner a certificate of compliance to specified acoustical and fire performance criteria as stated section 1.03 and Part 2 of this specification, signed by an officer of the panel manufacturer and attach independent laboratory test results for each product used, showing that the products supplied as components and complete assemblies, meet or exceed the specified requirements.
- D. Prior Approval: Manufacturers not listed in section 2.01 of this specification and wishing to be submitted as an equal on the project must submit information in accordance with section 1.04 of this specification fifteen days prior to the bid date as outlined in the contract documents. The information submitted must give evidence to show that the alternative product equals or exceeds the attributes and performance of the specified product.
- E. Manufacturers Approval: The manufacturer shall have the right to approve the selection of the installing contractor and to verify that said contractor has sufficient experience and expertise to complete the project in a satisfactory manner.
- F. Single Source: All custom acoustical wall and ceiling panels shall be purchased from a single supplier.

#### **1.05 Product Delivery, Storage and Handling**

- A. Deliver fabricated units and related components to the site for installation in accordance with a reasonable schedule furnished by the contractor. On-site storage shall be such as to assure that all panels and associated materials are protected from damage, and storage area is climatically controlled to normal operational levels.
- B. Prior to panel installation the site must be free of all wet and dusty trades and the

climatic conditions stabilized to normal operational levels. Panels shall be allowed to stabilize on site 24 hours prior to installation.

- C. Panels must only be handled by persons wearing clean light-weight gloves. It is very important that personnel installing hardware (clips, screws, ceiling suspension systems, hanger wires, etc.) do not handle the panels before putting the clean lightweight gloves on.

#### **1.06 Guarantee**

- A. Furnish to the Architect in the Owner's name, the manufacturers written guarantee covering the products supplied against defects in materials and workmanship under normal operating conditions for a period of one year from the date of shipment. Submit certificates of compliance showing warranty period by dates for each project completed to the Owner.

## **PART 2 PRODUCTS**

### **2.01 Acoustical Absorptive Ceiling Panel**

Furnish and deliver prefabricated acoustical ceiling panels as described in this section for installation in areas as shown on drawings meeting or exceeding the following requirements:

- A. Description: The ceiling panel shall be Decoustics Type ME/VATT as manufactured by :-

#### ***Decoustics Limited***

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Canada, L4H 1X9

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- 1. **Claro** finished panels shall be type ME/VATT 1 1/16" (27mm) with coated extruded aluminum edges and a vapor barrier. The panel shall be constructed of 6 to 7 lb./cu.ft (96 to 112 kg/cu.m.) density acoustically absorptive core with a 1/16" (1.5mm) high density (16 - 20 lb/cu.ft. (256 - 320 kg/cu.m.) acoustically transparent layer laminated to the face. The core shall be free of surface defects and sanded as required to a uniform thickness which will not vary by more than +/- 0.03" (1.0mm). The panels shall be fabricated to sizes supplied by the installing Contractor, using a CAD/CAM (CIM) Robotics cutting system to ensure accurate panel core dimensions to a tolerance of +/- 0.06" (1.6mm). Edges shall be coated mill finish aluminum with adequate web thickness to withstand moderate impact during installation and ongoing maintenance. Edges shall be fused to the core, be straight and true, and must be in alignment with the panel face. Soft or non-framed

edge treatments are not acceptable. Panel deflection, when installed, shall not exceed 1/360th of the span. The back of all panels shall be clearly text marked with the project I.D. number, panel number, location code, quantity of units per size, and correspond to the shop drawings.

2. Finish shall be:

CLARO - acoustically transparent textured coating Standard White (CSW 100) **or**  
Custom Colour

**Claro** finish shall be applied over the panel face and edges.

3. Installation shall be by use of slide and engage clips (Z clips), either into a continuous ceiling track, attached to the suspended frame/grid, or onto adjacent panels (depends on panel type, size, and layout). Panels are mounted progressively. Panel clips (DPC-3) shall be a minimum 18 gauge satincoat steel and mechanically mounted to the back of the panels on maximum horizontal centres of 24" (610mm). Adhesively mounted clips are not acceptable. All fasteners are to be supplied by the installing contractor.
4. Installation shall be in accordance with local code requirements, manufacturers instructions, and as shown on Decoustics approved shop drawings. Installer shall provide for shimming and adjustments as required to maintain consistent alignment of joints and of finished panel faces, and to ensure unstressed clip locations.
5. Panels shall have the following noise reduction coefficient value when tested in accordance with section 1.03 of this specification.

Panel Type	Thickness	Finish	Frequency (Hz)						
			125	250	500	1000	2000	4000	NRC
SAA									
ME/VATT	1 1/16"	Claro	0.39		0.63	0.83	1.05	1.05	1.00
0.90	0.87								
	(27mm)								

## PART 3 INSPECTION AND APPROVAL

### 3.01 Adjustment and Replacement

- A. The Owner shall inspect the installation and product on completion. The manufacturer shall provide repair or replacement of components not conforming to requirements as stated herein, and said work will then become bound by the terms of this specification.
- B. Installation labour for removal and replacement of product improperly installed and not conforming to specified installation methods as detailed in section 2.01.3 and 2.01.4, and shown on approved shop drawings, shall be the responsibility of the installing Contractor.