

SECTION 09510
CEILING TILE

PART 1 - GENERAL

1.1 SUMMARY

- .1 Provide acoustic fiberglass board ceiling panels in exposed tee bar suspension system.
- .2 Provide seismic restraint for system as required by Code.

1.2 RELATED SECTIONS

- .1 09210 Gypsum Wallboard Assemblies.
- .2 Division 15 Mechanical.
- .3 Division 16 Electrical.

1.3 REFERENCES

- .1 ASTM E84-03, Standard Test Method for Surface Burning Characteristics of Building Materials.
- .2 ASTM C423-02a, Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method.
- .3 ASTM E580-02, Standard Practice for Application of Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels in Areas Requiring Moderate Seismic Restraint.
- .4 ASTM E795-00, Standard Practices for Mounting Test Specimens During Sound Absorption Tests.
- .5 BC Building Code 2006.

1.4 SUBMITTALS

- .1 Shop Drawings:
 - .1 Submit ceiling plans for the Consultant's review, before installation.
 - .2 Plans are to show grid system, light fixtures, diffusers, grilles, access panels, insert locations and edge conditions if required.
 - .3 Show framing and support system for applied acoustic ceiling treatment.
- .2 Samples: Submit three samples of each exposed item for Consultant's review. Do not order materials until review is complete.
- .3 Maintenance Materials: Submit 2% but not less than 10 ceiling panels for Owner's use in maintenance.

1.5 QUALITY ASSURANCE

- .1 Installer Qualifications: Work shall be done by qualified mechanics employed by an approved acoustical contractor and performed under the direct supervision of certified contractors representing members of the Acoustical Materials Association.

1.6 DELIVERY, STORAGE AND HANDLING

- .1 Store materials in original containers with the manufacturer's labels and seals intact.
- .2 Protect from damage during handling and storage. Keep materials under dry cover, free from dampness, and raised above floor.
- .3 Only handle and install panels when wearing clean, white, lightweight gloves..

PART 2 - PRODUCTS

2.1 SUSPENSION SYSTEM FOR EXPOSED TEE GRID

- .1 Armstrong Prelude 15/16 exposed T grid, Plain Class 1 or approved equivalent. Form from commercial quality, cold rolled steel, zinc coated. Exposed finish satin white as scheduled.
- .2 Suspension system to support full assembly with 1/360 maximum deflection.

- .3 Main 'T': double web design rectangular bulb, cross tee holes 150 mm (6") on centre; wire hanger holes 50 mm (2") on centre.
- .4 Cross 'T': double web design, rectangular bulb, web extended to form positive interlock between cross tee webs, lower flange extended and offset, to form flush finish on underside of wall angles.
- .5 Wall moulding angle 25 mm (1") face, preformed comers. Hangers shall be 12 ga. minimum annealed wire.

2.2 LAY-IN COMPONENTS

- .1 Acoustical panels:
 - Tile Model: Armstrong, Fine Fissured, Square Lay-in 15/16"
 - Type: Square Lay-in exposed grid suspension.
 - Size: 24" x 24" x 3/4" thick model #1810
 - Composition: Non-combustible, woven mineral fiber.
 - Texture: Fine Fissured
 - Colour: White.
 - Edges: Square edge.
 - NRC rating: Minimum 0.70.
 - Fire hazard rating: fire resistive.
 - Light reflectance: 0.85.

PART 3 - EXECUTION

3.1 EXAMINATION

- .1 Examine conditions under which acoustical ceiling work is to be performed with Installer present. Correct unsatisfactory conditions.
- .2 Ensure that work of other sections is secure and adequate. Do not start work until electrical and mechanical work behind ceiling is inspected and approved.
- .3 Start of work indicates acceptance of conditions and surfaces. Correct unsatisfactory conditions.

3.2 PREPARATION

- .1 Coordinate with other trades in setting out and setting of metal items, insets, anchors, or other as work proceeds.
- .2 Measure each ceiling area and establish layout of acoustical units to balance border widths at opposite edges of each ceiling. Avoid using less-than-half width units at borders, and comply with reflected ceiling plans wherever possible.

3.3 INSTALLATION

- .1 Install suspension system according to ASTM E580-00 and reviewed shop drawings.

3.4 INSTALLATION OF SUSPENSION FOR EXPOSED TEE GRID

- .1 Install wall angle at perimeter wall and where grid abuts vertical surfaces, using uniformly spaced screws with allowance for variations in wall surfaces.
- .2 Use pre-formed comers for angles. Include trim at lights and diffusers.
- .3 Adequately brace and tie system to prevent movement, and level to a maximum tolerance 3mm in 4 m.
- .4 Suspend main 'T' runners at 610 mm (24") on centre maximum with suspension hangers 100 mm (4") on centre maximum. Provide additional hangers at lights and diffusers.
- .5 Interlock cross 'T' into main runners at 610 mm (24") on centre to conform to grid layout.

3.5 INSTALLATION LAY-IN PANELS

- .1 Install materials in accordance with the manufacturer's printed instructions, and comply with governing regulations, fire resistance rating requirements as indicated, and industry standards applicable to the work.
- .2 Arrange acoustical units and orient units in the manner shown by reflected ceiling plans or as directed by the Consultant.

3.6 CLEANING

- .1 Promptly as work proceeds, and on completion, clean up and remove from premises all debris and surplus material resulting from this section.

END OF SECTION