

Part 1 General

1.1 Summary

- .1 Section Includes:
 - .1 Materials and application of acoustical units for direct application or for application and installation within a suspended ceiling.

1.2 References

- .1 American Society for Testing and Materials International (ASTM)
 - .1 ASTM C423-02a, Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method
 - .2 ASTM E1264-98, Standard Classification for Acoustical Ceiling Products.
 - .3 ASTM E1477-98a(2003), Standard Test Method for Luminous Reflectance Factor of Acoustical Materials by Use of Integrating-Sphere Reflectometers.
- .2 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-51.34-M86, Vapour Barrier, Polyethylene Sheet, for Use in Building Construction and Amendment No. 1 1988.
 - .2 CAN/CGSB-92.1-M89, Sound Absorptive Prefabricated Acoustical Units.
- .3 Canadian Standards Association (CSA International)
 - .1 CSA B111-1974(R2003), Wire Nails, Spikes and Staples.
- .4 Department of Justice Canada (Jus)
 - .1 Canadian Environmental Protection Act (CEPA), 1999, c. 33.
 - .2 Transportation of Dangerous Goods Act (TDGA), 1992, c. 34.
- .5 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
 - .1 Material Safety Data Sheets (MSDS).
- .6 Underwriter's Laboratories of Canada (ULC)
 - .1 CAN/ULC-S102-2003, Surface Burning Characteristics of Building Materials and Assemblies.

1.3 Submittals

- .1 Submit samples in accordance with Section 01 33 00 - Submittal Procedures .
- .2 Submit duplicate full size samples of each type of acoustical units.

1.4 Quality Assurance

- .1 Regulatory Requirements:
 - .1 Fire-resistance rated floor/ceiling and roof/ceiling assembly: certified by Canadian Certification Organization accredited by Standards Council of Canada.
- .2 Mock-up:

- .1 Construct mock-ups in accordance with Section 01 45 00 - Quality Control .
- .3 Health and Safety:
 - .1 Do construction occupational health and safety in accordance with Section 01 35 30 - Health and Safety Requirements.

1.5 Delivery, Storage And Handling

- .1 Protect on site stored or installed absorptive material from moisture damage.
- .2 Store extra materials required for maintenance, where directed by Contract Administrator.

1.6 Environmental Requirements

- .1 Permit wet work to dry before beginning to install.
- .2 Maintain uniform minimum temperature of 15 degrees C and humidity of 20 - 40 % before and during installation.
- .3 Store materials in work area 48 hours prior to installation.

1.7 Extra Materials

- .1 Provide extra materials of acoustic units in accordance with Section 01 78 00 - Closeout Submittals.
- .2 Provide acoustical units amounting to 2 % of gross ceiling area for each pattern and type required for project.
- .3 Ensure extra materials are from same production run as installed materials.
- .4 Clearly identify each type of acoustic unit, including colour and texture.

Part 2 Products

2.1 Materials

- .1 Acceptable material: Fine Fissured Fire Guard, Item No.1824 by Armstrong.
- .2 Acoustic units for suspended ceiling system: to CAN/CGSB-92.1.
 - .1 Acoustical Tile System: Fine Fissured, medium textured, angled tegular system, item number 1717, 610x610x19mm acoustical tile white, NRC-0.70, Fire Rating Class A, Light Reflection 0.85, ASTM E 1264 Classification, type III, antimicrobial treatment, flame spread rating 25 or less, EcoLogo certified paint low emitting VOC paint surface coverings.
- .3 Adhesive: low VOC type recommended by acoustic unit manufacturer.
- .4 Staples, nails and screws: to CSA B111 non-corrosive finish as recommended by acoustic unit manufacturer.
- .5 Polyethylene: to CAN/CGSB-51.34, 0.15 mm thick.

Part 3 Execution

3.1 Examination

- .1 Do not install acoustical panels and tiles until work above ceiling has been inspected by Contract Administrator.

3.2 Installation

- .1 Install acoustical panels and tiles in ceiling suspension system according to reflected ceiling plan.
- .2 Install fibrous acoustical media and spacers over entire area above suspended metal panels.

3.3 Application

- .1 Install acoustic units to clean, dry and firm substrate.
- .2 Install acoustical units parallel to building lines with edge unit not less than 50% of unit width with directional pattern running in same direction. Refer to reflected ceiling plan.
- .3 Scribe acoustic units to fit adjacent work. Butt joints tight, terminate edges with moulding.

3.4 Interface with Other Work

- .1 Co-ordinate with Section 09 22 27 - Acoustical Suspension.
- .2 Co-ordinate ceiling work to accommodate existing and new components of other sections, such as light fixtures, diffusers, speakers, sprinkler heads, to be built into acoustical ceiling components.

3.5 Schedule

- .1 610 x 610 Acoustical Tile:
 - .1 Room M28 MPR #2.

END OF SECTION