

Approved: 2010-12-31

**Part 1 General**

**1.1 RELATED REQUIREMENTS**

- .1 Section 09 51 13 – Acoustic panels ceiling

**1.2 REFERENCE STANDARDS**

- .1 ASTM International
  - .1 ASTM C635/C635M-07, Standard Specifications for the Manufacture, Performance and Testing of Metal Suspension Systems for Acoustical Tile and Lay-In Panel Ceilings.
  - .2 ASTM C636/C636M-08, Standard Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-In Panels.
- .2 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
  - .1 Material Safety Data Sheets (MSDS).

**1.3 ACTION AND INFORMATIONAL SUBMITTALS**

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
  - .1 Submit manufacturer's instructions, printed product literature and data sheets for acoustical suspension and include product characteristics, performance criteria, physical size, finish and limitations.
- .3 Shop Drawings:
  - .1 Indicate insert and hanger spacing and fastening details, splicing method for main and cross runners, lay-out, change in level details, location of access splines, access door dimensions, and locations and acoustical unit support at ceiling fixture and lateral bracing and accessories.

**1.4 CLOSEOUT SUBMITTALS**

- .1 Submit in accordance with Section 01 78 00 - Closeout Submittals.
- .2 Operation and Maintenance Data: submit operation and maintenance data for acoustical suspension for incorporation into manual.

**1.5 DELIVERY, STORAGE AND HANDLING**

- .1 Deliver, store and handle materials in accordance with Section with manufacturer's written instructions and 01 61 00 - Common Product Requirements.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:

- .1 Store materials off ground in dry location, indoors and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
- .2 Store and protect acoustical ceiling tiles and tracks from nicks, scratches, and blemishes.
- .3 Replace defective or damaged materials with new.

## **Part 2 Products**

### **2.1 DESIGN CRITERIA**

- .1 Design Requirements: maximum deflection: 1/360th of span to ASTM C635/ASTM C635M deflection test.

### **2.2 MATERIALS**

- .1 Intermediate duty system to ASTM C635/ASTM C635M.
- .2 Exposed tee bar grid components: shop painted satin sheen. Components die cut. Main tee with double web, rectangular bulb and 25 mm rolled cap on exposed face. Cross tee with rectangular bulb; web extended to form positive interlock with main tee webs; lower flange extended and offset to provide flush intersection
  - .1 23.8 mm T profiles in white color
- .3 Hanger wire: according to the manufacturer's recommendations.
- .4 Accessories: splices, clips, wire ties, retainers and wall moulding wall-ceiling, to complement suspension system components, as recommended by system manufacturer.

## **Part 3 Execution**

### **3.1 INSTALLATION**

- .1 Manufacturer's Instructions: comply with manufacturer's written recommendations, including product technical bulletins, product catalogue installation instructions, product carton installation instructions, and data sheets.
- .2 Installation: to ASTM C636/C636M except where specified otherwise.
- .3 Install suspension system to manufacturer's instructions and Certification Organizations tested design requirements.
- .4 Install hangers spaced at maximum 1200 mm centres and within 150 mm from ends of main tees.
- .5 Lay out with border units not less than 50% of standard unit width system according to reflected ceiling plan. centre line of ceiling both ways, to provide balanced borders at room perimeter.
- .6 Ensure suspension system is co-ordinated with location of related components.
- .7 Install wall moulding to provide correct ceiling height.
- .8 Completed suspension system to support super-imposed loads, such as grilles, diffusers, lighting fixtures and speakers.

- .9 Support at light fixtures and diffusers with additional ceiling suspension hangers within 150 mm of each corner and at maximum 600 mm around perimeter of fixture.
- .10 Attach cross member to main runner to provide rigid assembly.
- .11 Frame at openings for light fixtures, air diffusers, speakers and at changes in ceiling heights.
- .12 Finished ceiling system to be square with adjoining walls and level within 1:1000.

### **3.2 CLEANING**

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
  - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.
  - .1 Touch up scratches, abrasions, voids and other defects in painted surfaces.

### **3.3 PROTECTION**

- .1 Protect installed products and components from damage during construction.
- .2 Repair damage to adjacent materials caused by acoustical suspension installation.

**END OF SECTION**