

SECTION 09512

GYPSUM **SUSPENDED CEILINGS**

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Extent of Work: The extent of gypsum ceilings and suspension systems is indicated on drawings and in schedules with the required associated and corresponding suspension systems.

1.02 QUALITY ASSURANCE

- A. Installation: Install gypsum ceilings and suspension systems in strict compliance with the manufacturer's installation instructions and the approved shop drawings.
- B. Coordination: Coordinate layout of gypsum ceilings with other work which penetrates or is supported by ceiling suspension system.
- C. Fire Resistance: Ceilings shall comply with the requirements of BS 476, Part 4, unless otherwise directed.
- D. Codes and Standards: Comply with the applicable requirements of the following codes and standards.

ASTM American Society for Testing and Materials

C 1395 Specification for Gypsum Ceiling Board

BS British Standards.

476 Fire Tests on Building Materials and Structures.

Part 4: Non-Combustility Test for Materials.

Part 7: Surface Spread of Flame Tests for Materials.

1052 Specification for Mild Steel Wire for General Engineering Purposes.

1494 Specification for Fixing Accessories for Building Purposes.

1554 Specification for Stainless and Heat Resisting Steel Round Wire.

1769 Specification for Unified Black Hexagon Bolts, Screws and Nuts Heavy Series.

8290 Code of Practice for Design of Suspended Ceilings.

ASTM American Society For Testing And Materials

A446 Steel Sheet, Zinc-Coated by the Hot-Dip Process, Structural.

B209 Aluminum and Aluminum-Alloy Sheet and Plate.

B221 Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes and Tubes.

C636 Installation of GYPSUM Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels.

1.03 SUBMITTALS

- A. Product Data: Submit manufacturer's product specifications and installation instructions for gypsum ceiling materials required and for each suspension system, including certified laboratory test reports and other data as required to show compliance with these specifications. Include manufacturer's recommendations for cleaning and refinishing gypsum units, including precautions against materials and methods which may be detrimental to finishes and gypsum performances.
- B. Samples: Submit set of 300 mm square samples for each gypsum unit required, showing full range of exposed color and texture to be expected in completed work. In addition submit set of 300 mm long samples of runners, molding and trim and each fixing accessory.
- C. Replacement Materials:
 - 1. When work is completed, deliver stock of replacement material to Client for each type of met unit used in the work. Furnish full size units, matching installed materials, packaged and marked for identification.
 - 2. Furnish not less than 1% of the total amount of each type of gypsum and other units installed.

1.04 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Deliver gypsum and other ceiling materials to the job site in original, unopened packages, bearing manufacturer's name and label identifying each type of met unit.
- B. Storage Areas: Comply with the material manufacturer's recommendations for storage of units to be used in the work.

1.05 SPARE MATERIAL

- A. The Contractor shall provide at his own cost spare material of 1% (one per cent) of each tile used in clean, marked spare for the Client's use.

PART 2 - PRODUCTS

2.01 MATERIALS:

- A. Gypsum Ceilings:

Gypsum Board: Provide gypsum board and frame of 50mm overall thickness and of dimensions shown on drawings. Unless otherwise recommended by the manufacturer and approved by the Engineer, the minimum thickness of the gypsum board shall not be less than 15mm.

Gypsum Boards shall comply with the requirements of ASTM C 1395.

- B. Accessories:

1. Moulding: Provide manufacturer standard moulding, unless otherwise shown on Drawings.
2. Access Panels: Where required, provide access panels of suitable size and construction for inspection and maintenance purposes. Panels shall be of similar construction and finish as that of the ceiling and shall be off manufacturer's standard product.

PART 3 - EXECUTION

3.01 INSPECTION

- A. The Contractor shall examine the substrates and the condition under which the gypsum ceiling work shall be performed, and correct any unsatisfactory conditions. Do not proceed with the gypsum ceiling work until unsatisfactory conditions have been corrected in a manner acceptable to the Engineer.

3.02 PREPARATION

- A. Coordination: Furnish layouts for inserts, clips, or other supports required to be installed by other trades for support of the gypsum ceilings.
- B. Measure each ceiling area and establish layout of the gypsum units to balance the border widths at opposite edges of each ceiling. Avoid use of less-than-half width units at borders, and comply with approved ceiling plans.

3.03 INSTALLATION

- A. Installation of suspended ceilings shall be in compliance with the manufacturer's instructions and approved ceiling drawings.
- B. Ceiling suspension systems shall be installed true to line and level in compliance with approved shop drawings. Suspension depth shall comply with the requirements shown, unless otherwise directed. All anchors shall be in stainless steel (type 316). Hangers and supports shall be appropriate to the suspension system and shall be spaced in accordance with approved shop drawings.
- C. Install edge mouldings of type required at perimeter of ceiling area and at locations where necessary to conceal edges of ceiling units. Miter corners accurately and connect securely.
- D. For electro-mechanical work, the Contractor shall comply with the applicable requirements as specified.

3.04 ADJUST AND CLEAN

- A. Clean exposed surfaces of gypsum ceilings, and suspension members; comply with manufacturer's instructions for cleaning and touch-up of minor finish damage. Remove and replace work which cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.

** END OF SECTION **