



Undertaking Letter for Insulation

We the (consultant/contractor) responsible for the design and supervision of the project undertake to use approved thermal insulation materials and glass specifications as indicated in the sections and schedules including approved systems and installation methods.

And we commit that the attached thermal insulation sections are matching the architectural and structural details.

SECTION

The minimum EER of the HVAC equipments must be in accordance with Dubai Building Code

AC Thermal Load

$$= \text{Total Area (m}^2\text{)} \times 0.160$$

kW

$$= \text{ } \text{m}^2 \times 0.160$$

$$= \text{ } \text{kW}$$

AC Electric Power Demand

$$= \text{Total Area (m}^2\text{)} \times 0.077$$

kW

$$= \text{ } \text{m}^2 \times 0.077$$

$$= \text{ } \text{kW}$$

Where the total area is the total built up area excluding non AC car park or external swimming pool

Notes and Conditions:

The above two equations are applicable for DX air conditioning system only. If another system is being used (like chilled water, or variable refrigerant flow VRF), then all VAC drawings, glazing element schedule, AC load schedule, AC load calculation program should be attached as per DBC.

Consultant must confirm prior to approving or installing AC units in the site that the electric demand load for AC units doesn't exceed the allowed and approved load. If extra load is required, then all VAC drawings, glazing element schedule, AC load schedule, AC load calculation program should be attached as per DBC.

An approved insulated aluminium sandwich panel (applied for roof) is used and illustrated on the architectural sections and details (if being used).

The U-value, SC, and LT must comply with DBC.

Mechanical ventilation, air quality and noise level must comply with DBC.

All indoor AC units to be located in wet areas to ease the maintenance and avoid damages due to AC drain leakage otherwise client written approval is required.

1.5cm ROOF TILES
1.5cm CEMENT SAND MORTAR
5-15cm SCREED LAID TO SLOPE
7.5cm THERMAL INSULATION LAYER
15cm R.C. ROOF SLAB
1.5cm PLASTER

DETAIL (1A) OF ROOF

1.5cm TILES
2.5cm CEMENT SAND MORTAR
10cm THICK PLAIN CONCRETE
5cm THERMAL INSULATION
(WITH VAPOR BARRIER FROM BOTH SIDES)

Min. (1.00m)
WATERPROOF LAYER

DETAIL (5A) OF GROUND FLOOR

1.5cm PLASTER
20cm R.C.C. COLUMN
5cm THERMAL INSULATION
(WITH VAPOR BARRIER FROM BOTH SIDES)
10cm CONCRETE BLOCK WALL
1.5cm PLASTER

DETAIL (2A) OF DROP BEAMS

1.5cm PLASTER
20cm BLOCK WALL
1.5cm PLASTER

DETAIL (6A) OF PARTITION

1.5cm PLASTER
10cm CONCRETE BLOCK WALL
5cm THERMAL INSULATION
(WITH VAPOR BARRIER FROM BOTH SIDES)
20cm R.C.C. COLUMN
1.5cm PLASTER

DETAIL (3A) OF EXTERNAL COLUMN

1.5cm TILES
5cm CEMENT SAND MORTAR
15cm R.C.C. TYPICAL SLAB
1.5cm PLASTER

DETAIL (7A) OF TYPICAL FLOOR

1.5cm PLASTER
25cm THERMAL BLOCK WALL (1,2,3,4)
10cm CONCRETE BLOCK WALL
1.5cm PLASTER
(1) SANDWICH CONCRETE BLOCK WALL
(2) CLAY BLOCK WITH POLYSTYRENE INSERT
(3) LIGHT WEIGHT SANDWICH CONCRETE BLOCK WALL
(4) AAC BLOCK WALL

DETAIL (4A) OF EXTERNAL WALL

1.5cm TILES
2.5cm CEMENT SAND MORTAR
15cm THICK PLAIN CONCRETE

DETAIL (8A) OF NON INSULATED GROUND FLOOR

No.	Date:	Name:	Description:
2	13/10/2020	CAVITY WALL SYSTEM 35cm	Type 2