

# Fascinate Sound & Heat

**INSERA**<sup>TM</sup>  
ENCAPSULATED INSULATION PADS



DESIGN COMFORT INSULATION

## INSERA™ - ENCAPSULATED INSULATION PADS

- **INSERA™** Encapsulated insulation pads are ceramic wool wrapped in readymade bags.
- It has excellent acoustic properties, low thermal conductivity & available in two thicknesses.
- It is used for thermo-acoustic purpose, where good sound absorption is required to prevent echo inside the room & minimum heat transfer is required to reduce energy costs by reducing energy consumption & ultimately providing human comfort.
- It is highly durable, completely inorganic with no added organic constituents & binders.

<b>Brief Description</b>	INSERA™ Encapsulated insulation pads is a ceramic wool wrapped in readymade bag which is three side machine stitched and one side open end with hook and loop fasteners. This specific grade is used for thermo-acoustic applications.
<b>Material Type</b>	INSERA™ Encapsulated insulation pads has excellent sound absorption property & good thermal resistance
<b>Color</b>	Black
<b>Applications</b>	Building Wall, False Ceiling, AHU room etc.

### STANDARD DIMENSIONS:

Density	Thickness	Width	Length
64 kg/m <sup>3</sup>	25 & 50 mm	610 mm	1000 mm

### THERMAL CONDUCTIVITY (K VALUE) TABLE (AS PER IS 15402/IS 3346):

Mean Temperature (°C)	25	35	50
Thermal Conductivity (W/m.K)	0.035	0.037	0.041

### THERMAL RESISTANCE (R VALUE) TABLE:

Mean Temperature (°C)	25	35	50
Thermal Resistance (ft <sup>2</sup> .hr.°k/BTU) [For 25 mm thickness]	4.055	3.836	3.462
Thermal Resistance (ft <sup>2</sup> .hr.°k/BTU) [For 50 mm thickness]	8.11	7.67	6.924

## ACOUSTIC PERFORMANCE:

- The absorption coefficients at different frequencies (1/3 octave band) in accordance with IS 8225/ ISO 354/ ASTM 423C.

Frequency (Hz)	Sound Absorption Coefficient (SAC)	NRC	Sound Absorption Class
100	0.55	1.0	Class A
150	0.83		
160	0.73		
200	0.69		
250	0.85		
315	1.00		
400	1.07		
500	1.09		
630	1.12		
800	1.04		
1000	1.06		
1250	0.98		
1600	0.97		
2000	0.93		
2500	0.94		
3150	0.95		
4000	0.94		
5000	0.90		

## FEATURES :

- Excellent thermal & chemical stability
- Light weight
- Good sound absorption
- Low thermal conductivity
- Resistant to thermal shock
- Good acoustic & thermal property
- Excellent corrosion resistance
- Asbestos free

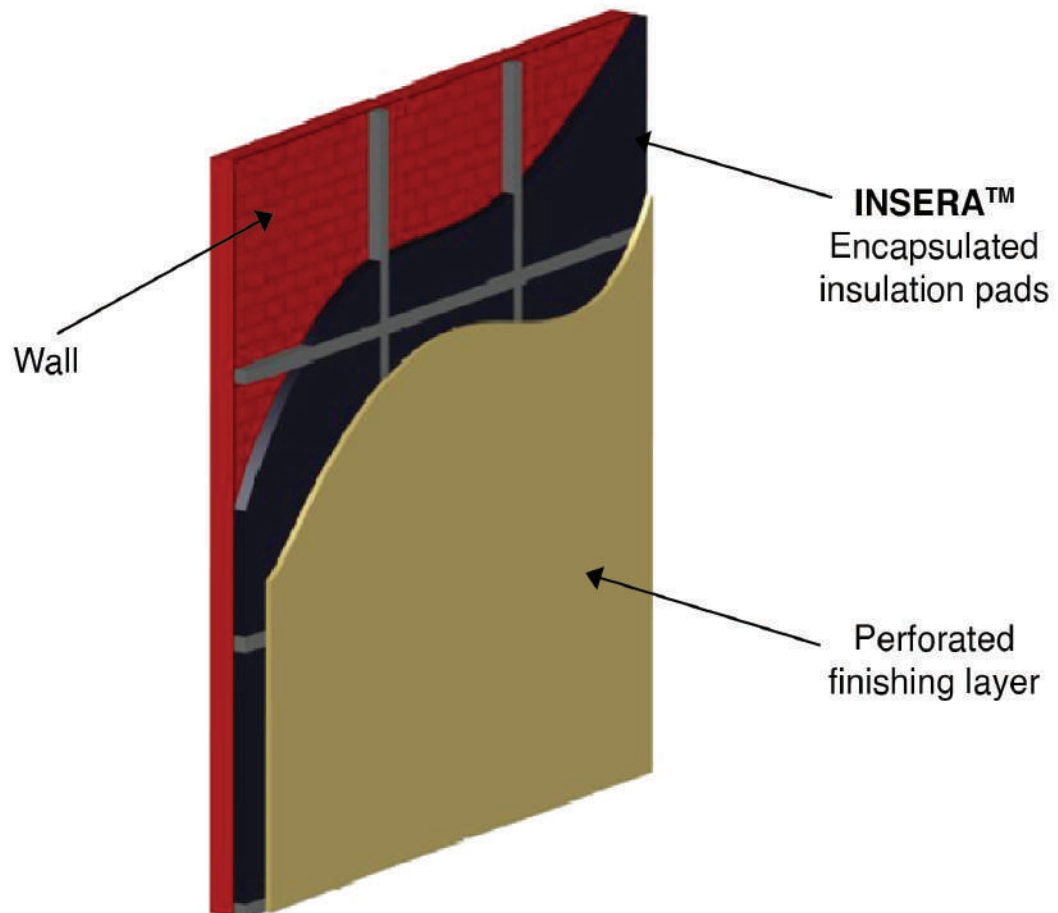
## INSERA™ ENCAPSULATED INSULATION PADS APPLICATION AREA:

### BUILDING WALL :

- Every room poses its own acoustic requirements. For example, wall of a conference room should be built in such a way that it should have sound absorption properties. If there won't be any sound absorption then there are chances of developing echo in the room which will ultimately lead to inappropriate acoustic ambience inside the room.
- **INSERA™** Encapsulated insulation pads having very good sound absorption properties can be applied with the help of framing on these walls to prevent echo inside the room which will create appropriate acoustic ambience inside the room. The finishing layer should be perforated for sound absorption purpose.
- **INSERA™** Encapsulated insulation pads also have low thermal conductivity which will reduce the heat transfer across the walls, maintaining the inside temperature and reducing energy consumption of the room.

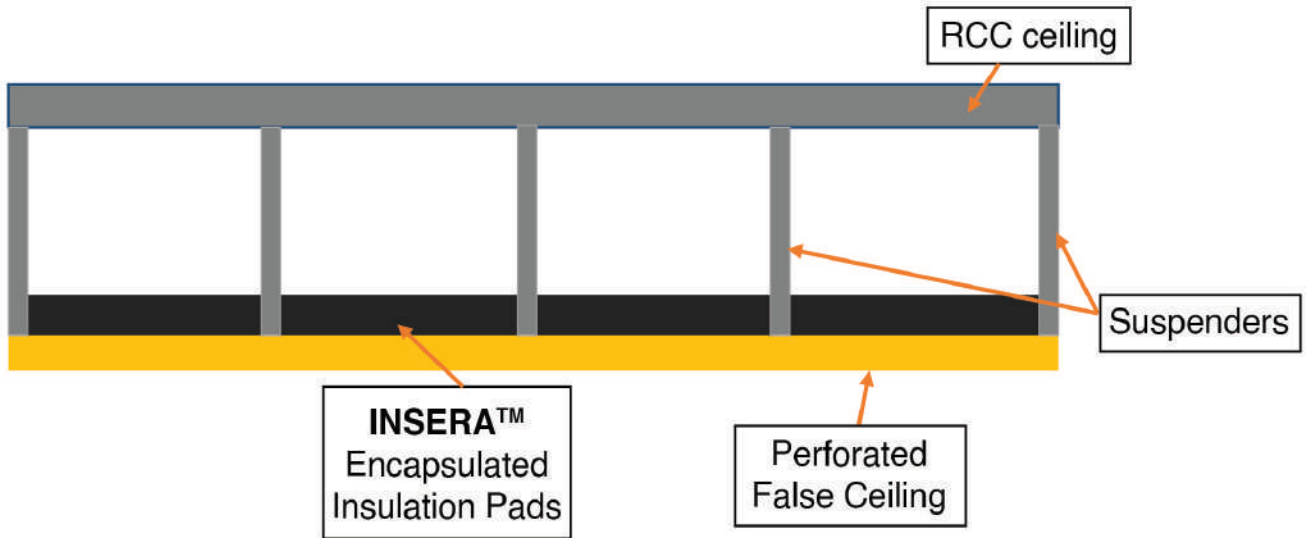
## AHU ROOM:

- There is an AHU room where Air Handling Unit (AHU) is placed and it generates a lot of noise. This Sound is transmitted to other rooms and creates discomfort among occupants in other rooms.
- **INSERA™** Encapsulated insulation pads shall be fixed on the wall of an AHU room to reduce the sound transmission & makes the surrounding comparatively noise free.
- AHU placed inside of a room can generate heat. The use of INSERA™ Encapsulated insulation pads is adding advantage in reduction of heat transfer from that room to other room by applying it on the wall and acting as a thermal barrier between two rooms which helps in maintaining comfort level inside of other rooms.

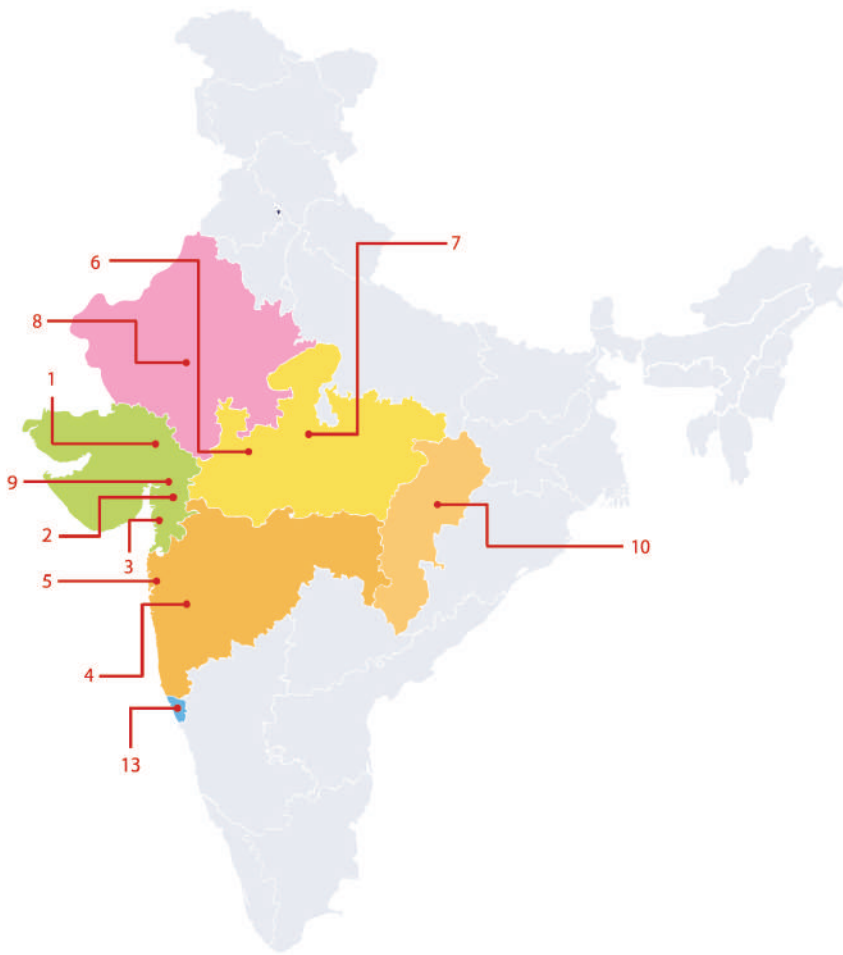


## FALSE CEILING APPLICATION:-

- False ceiling contributes to aesthetics of a ceiling of a room. In various rooms for example, conference room, library, private cabins etc. where a good hearing ambience is required. So false ceiling should be properly insulated to prevent echo inside the room.
  - **INSERA™** Encapsulated insulation pads shall be kept directly over perforated false ceilings to create a proper hearing ambience inside the room for the occupants by preventing echo.
  - If these rooms are exposed to terrace then there are chances that the heat transfer can take place from ceiling to the room which will increase the energy consumption of the air conditioning room.
  - **INSERA™** Encapsulated insulation pads will help to reduce the heat transfer inside the room from the ceilings & energy consumption can be reduced & it helps in providing human comfort.
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