

PUSH HEAT AWAY

INEXPO SYSTEMS®

EXTERNAL / EXPOSED WALL INSULATION

BRICK & RCC ARE GOOD CONDUCTORS OF HEAT

Usually the building materials are RCC and brick which allow a considerable amount of heat to pass through them. Thermal resistance of the brick wall is slightly higher than RCC but in extreme conditions it is as bad as RCC. When atmospheric temperature makes the building occupants uncomfortable, it becomes necessary to limit its influence.



HEAT TRANSFER PROCESS

The brick wall absorbs and retains heat during the day when the outside temperature is high. As the atmosphere starts cooling down, the wall releases the collected heat into the building. This requires more energy to maintain comfortable temperature inside the building. Additionally, there is a possibility of water seepage during rains, which creates a moisture layer on the walls. This creates a thermal bridge, as it reduces the structural integrity of the walls.

- **RCC and brick are good conductors of heat**
- **They transfer heat inside the building and make the occupants uncomfortable**
- **They cause water seepage during monsoon**

INEXPO REDUCES THERMAL CONDUCTIVITY

Walls can be insulated with lower thermal conductivity material to reduce the energy required to maintain a comfortable temperature in the building. That prevents the heat from easily passing through the walls. Wall can be insulated from inside or outside. Insulation from inside reduces the volume of the room. But that can be avoided if planned sufficiently early. Alternatively, walls can be insulated from outside. If stone cladding is already planned for external wall, grid work for mounting the stone can be used for insulation material as well. This reduces the overall cost of installation and reduces the penetration of heat.

Outside Wall Insulation

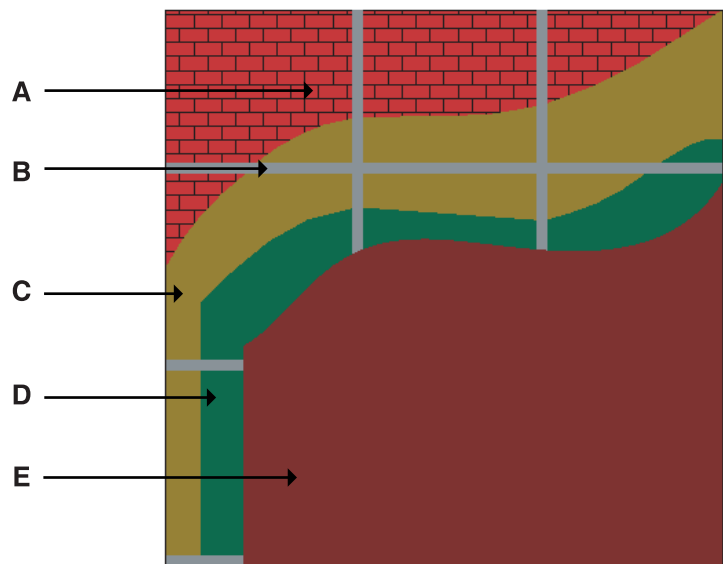
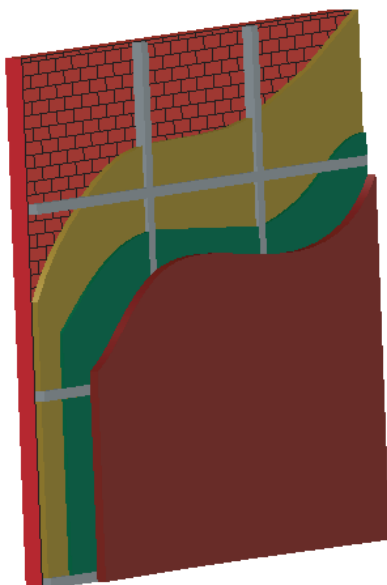
For outside wall insulation, a moisture protection layer should be applied on the insulation material. The reason being, if insulation material is directly exposed to moisture then it changes the property of insulation material, which results in poor thermal performance. Once the insulation material is properly installed, finishing material can be applied for aesthetic purpose. If there is a minor air gap between insulation material and finishing material then it is good for thermal performance as air has good thermal resistance.

Thickness

Selection of the material and its thickness depends on the U-value requirement of the overall system. The suggested thickness for this system is between 50 mm to 75 mm. This system can be designed for protecting the building from external conditions and limiting the ingress at source.

Ideal For

Personal Residences, Universities, Corporate Buildings, Call Centers, IT Office Buildings, etc.



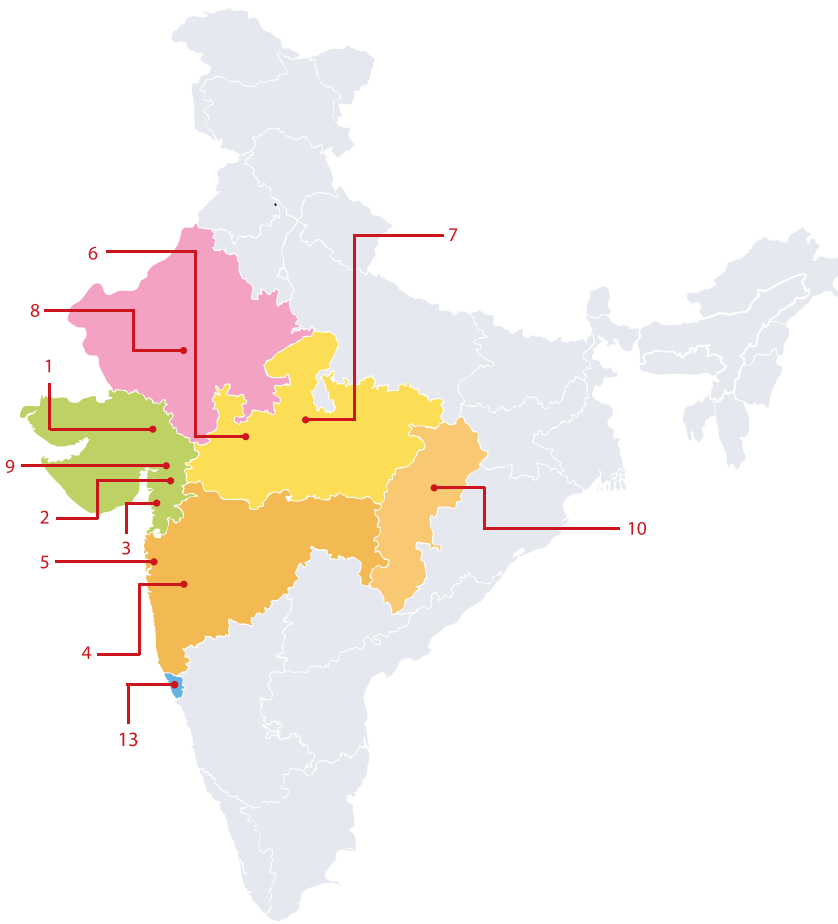
Front view



Side view

- A) Brick wall
- B) Aluminum grid
- C) Insulation material
- D) Protective layer
- E) Stone cladding

- InExpo Systems reduce heat transfer inside buildings
- Moisture Protection layer is required for outside wall insulation



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