



**Warning! Failure to insulate will prevent unit from reaching set temperature and increase power consumption!**

Standard construction materials like stone, concrete or brick are very poor insulators, and only those parts that are underground represent any real insulation, if any.

It is therefore essential, to insulate the room you want to be conditioned.

## WHAT INSULATION?

We recommend that you use extruded polystyrene, which is currently the most efficient on the market.

It is the least flammable and the most durable over a long period of time.

Polystyrene panels work on a tongue and groove principal that avoids any thermal bridges.

To extend the life of your conditioner, and reduce your electricity bill, use a minimum thickness of 80mm extruded polystyrene panels.

Lastly, remember that during heat waves, poor insulation will mean that your air conditioner works non-stop in order to maintain the set temperature and may develop a fault.



8cm of extruded polystyrene ensures the same insulation as a 1.8 metre thick stone wall.

U Value less than 0.35  
R Value more than 2.66

The insulation must be perfectly continuous (no interstices).

If you use any other material please ensure it is non porous and achieves the minimum appropriate U or R value (eg. celotex, super trioso, kingspan)

### NOTE:

- 1 - Windows or glazed panels in the cellar space should be avoided.
- 2 - No hot water pipes should pass through the room to be conditioned (e.g. under floor heating).
- 3 - The outer part of the conditioner should not be located in an area that is open to the weather.

- 4 - Unit is designed for internal walls.
- 5 - No heat producing appliance (e.g. fridge, radiator, boiler) should be located in the room to be conditioned.
- 6 - Do not install the conditioner opposite the door to the room.
- 7 - Do not locate the outer part of the conditioner above a heat source.
- 8 - Place centrally as possible away from ceiling or side wall.

## INSULATING PANELS: DIFFERENT INSTALLATION METHODS

There are 3 types of insulating panels:

Insulation only, complex (with plaster cover) or sandwich (plaster both sides). Depending on the insulation selected, there are several ways of installing it:

- **Against the walls**

- **Standard panels of extruded polystyrene:**

Pre-cut to the size of the room, can be attached using an adhesive plaster. For a more aesthetic finish, you can install rails on to which you screw plasterboard panels, over the polystyrene.

- **Complex or sandwich panels:**

The polystyrene is already bonded onto the plasterboard.

No matter what method you use, you can use any decorative material you want in order to obtain an aesthetic finish.

If you only want to condition part of the room, install a plasterboard partition wall and insulate the side in the space to be air conditioned.

- Before being insulated, the walls must be dry. If they are too damp, clean them with a metal brush and then with a highpressure water spray. Coat with fat lime.

- **On the ceiling**

Ceiling insulation is identical to that for the walls. We recommend the use of extruded polystyrene.

- **On the floor**

- **Originally beaten earth floor:**

Do not insulate, favours the passage of humidity, which is good for the wine.

- **concrete floor (for example):**

Concrete is a very poor insulator. Materials like sand or gravel may, in some cases, improve insulation.

Warning! Ground insulation must have sufficient resistance against compression, and be able to support racks of bottles.

- **Tools required:**

Handsaw, tape measure, masonry ruler, trestles, screwdriver, drill, hammer, spirit level, plumbline, wooden mallet, spatula, cutter, etc.

