

How do you insulate a double brick wall?

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Ed and Sharon in Manitoba just bought an old house in Manitoba and it is very cold, there doesn't seem to be any insulation in the walls at all. They have been told that it was double brick construction with plaster on the inside. Well friends, it was probably built by someone from Toronto who didn't know about prairie winters.

We made a model to show two possible ways that this wall could be made. One has two rows of brick with the gap between filled with mortar, the other has an air space. The problem is that if you have the air space, you can not fill it up with insulation, it is part of a design to air out and dry out the outer bricks.

The only real choices are to insulate over the wall. If you do it on the outside, you have to add more siding and you lose the nice look of the expensive brick. So inside is a good way to do it. Either leave the plaster in place, or remove it to bare brick. If you remove it, put a building paper on first, not a vapour barrier. Then either build a stud wall in front of the wall, or easier yet, with less space lost, put two inches of foam insulation on the wall for an R-10, and then cover it with drywall.

You do need a vapour retarder on the "warm in winter" side of the insulation. If you are using "extruded polystyrene", like Styrofoam or other dense foam boards (not beadboards that can be crumbled into little polystyrene balls) then you could in fact just caulk the joints (with a non-solvent based caulk or adhesive) and the sealed foam itself will serve as the vapour barrier. Otherwise just put a plastic sheet in front of the foam or any other form of insulation. Follow this link more details on positioning vapour barriers in unusual walls. Or simply look up vapour barrier in the search tab for an evening of reading.

That is not as good as a modern energy efficient house, but if you take the trouble to seal it up air tight so there are no cold air drafts, it will make all the difference in the world.

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