

How to insulate a cold room

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Mary from Kingston, Ontario writes: I would like to build a small cold room but the space that can be allotted to this is only approximately 42 in. wide by 48 in. deep. Is this feasible? One of the walls will be an outside, north-facing cement block wall, the others will abut on the interior. Would you please give me some advice re the construction of such a space -- whether the outside wall should be finished or not; the insulation required; the ventilation required to the outside and/or inside, etc.----- Response: You are not really making a cold room but rather a cold closet. The primary problem you will have in such a small space is air circulation. There are no fixed rules, nor perfect answers, for making cold rooms. Generally we want to insulate enough to keep it from freezing, yet isolate it from the house enough to let it get colder than the rest of the basement in the winter. I would suggest 1" of Styrofoam (blue or pink, but not white bead board) on the masonry walls, covered with drywall. Any stud walls should be filled with fiberglass, with the vapour barrier on the "Warm in Winter" side. I would put two vents to the outside, one side on the ceiling and the other side of (the very large) room ducted down to the floor. Make sure that both of these vents have control dampers as the secret to success is finding just the right amount of ventilation for each season. These holes will tend to cool the room, especially if you weather-strip the door to isolate the room from the basement. Next, put strapping on the wall (1x3) over the drywall so that all shelving will be kept away from all the walls. This is critical for air circulation. I prefer wooden latte shelves, or wire shelves, again for circulation. I usually put in a little 500 watt electric heater that can be set to 50 degrees, or just above freezing only as a safety measure to not allow freezing.

Keywords:

Strapping, Cold Room, Basement, Insulation