

Air tight electrical boxes

Last Updated: Saturday, November 10th, 2012, Created: Saturday, October 27th, 2001

Vapour Barriers should go on the "Warm in Winter" side of the insulation so that they can stop all the moisture in the air from going through the wall, but stop it where it is still warm and there will be no condensation. The problem is that a lot of air, and a lot of moisture can go through electrical boxes. When a house has a properly applied house wrap, the air movement through the wall is stopped and you don't have to worry about the electrical boxes. When you are working in an older house, or any house that exhibits air drafts through the electrical boxes, you must work on making that electrical box part of the vapour barrier -- an air/vapour barrier. One of the easiest and most economical ways is to use a thing called a polypan. This slightly ridged plastic box with a big flange on it is installed on the studs together with the electrical box. Then the vapour barrier is attached to it with acoustical sealant - the only stuff that will stick to polyethylene. Another even more efficient solution is to use air tight electrical boxes. These are not just any electrical boxes, but ones with few holes in them, and the holes they do have, have gaskets on them. They even have a gasket to squeeze the polyethylene between the box flange and the drywall, making an airtight seal. According to the National Research Council of Canada, up to 30 litres of water can go through each electrical box over the course of a winter. That is why we should make sure our electrical boxes are sealed air tight.

Keywords:

Condensation, Vapour Barrier, Air Flow, Air Barriers, Drafts, Electrical