

Ask Jon Eakes

WHY PUT A MOISTURE BARRIER UNDER A HOUSE?

Last Updated: Monday, June 10th, 2013, Created: Thursday, October 14th, 1999

An earthen crawl space or basement is a terrible source of humidity. The ground under the house, given most soil conditions, will continually feed water up to the surface -- where it will evaporate up into the house. Here vapour diffusion is important because there is nothing stopping this flow of water into the underside of the floorboards. Spread a sheet of 6 mil polyethylene plastic out over the ground and work it as best you can around the obstacles. Hold the edges and joints down with bricks or rocks. You do not need to seal the joints, just overlap them and hold them down. It is not like a water bucket that will let all the water out if there is one small hole in the bucket. For moisture to evaporate from the soil it must be in contact with the air, so the % of soil that is covered with plastic is the % of reduction of moisture you will achieve. For once you can do an imperfect job and get good results. If you are going to walk or crawl down there, protect this sheet with a couple of inches of concrete or at least a couple inches of sand. Otherwise just put some boards where you need to walk or crawl. The concrete, sand or boards do nothing but protect the plastic -- it is the plastic itself, even under a concrete slab, that controls the moisture. Blocking the moisture will also save you energy, because it takes energy to evaporate water from the ground. One Swedish experiment raised the temperature in the basement by six degrees Celsius and reduced the relative humidity from 80 per cent to 50 percent simply by adding a plastic sheet on the ground. Recent research on coastal crawl spaces is leading to recommendations in such humid climates to put plastic on the ground and close off the ventilation, blocking the two sources of moisture coming into the bottom of the house. Ventilation is good, but only if it is able to dry things out. Follow this link for crawl space ventilation requirements.

Keywords:

Moisture, Plastic, Crawl Space, Moisture Barrier, Basement

Article 781

www.joneakes.com