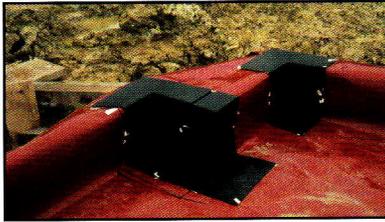


The thickness of the barrier is not as important as completely sealing all the joints in the barrier



Preformed corner pieces used to simplify corner detailing

Prefabricated welded barriers are becoming more widely available and more affordable. They comprise a bespoke one-piece sheet manufactured to fit the full footprint of the building. With all jointing carried out under factory conditions, there is less chance of the barrier leaking.

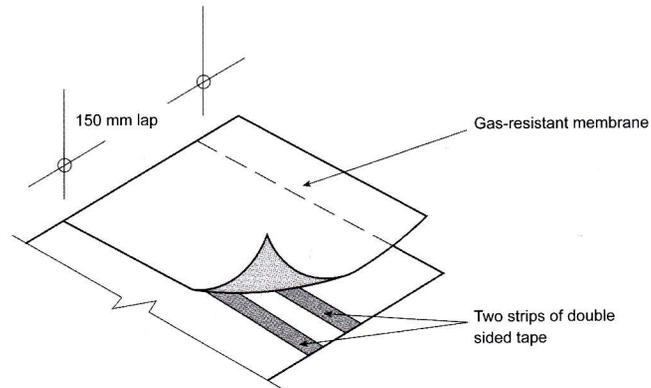


Figure 11: Sealing joints in the radon barrier

### Radon barrier damage prevention

Even with the more robust materials it is important that the radon-proof membrane is not damaged during construction. This might be achieved by installing the membrane at a later stage of construction, for example over the floor immediately before laying of the screed (see Figure 12). Another option might be to protect the membrane by sandwiching it between two layers of insulation. If laid beneath the slab, the barrier may need to be protected against damage when placing, compacting and finishing of concrete takes place. If it is intended to power float a concrete slab, ensure that the edge of the barrier is appropriately detailed or adequately protected so that it cannot be damaged by the action of the power float.

Before it is covered with concrete or other construction work, it is important to check that the barrier is not damaged (ie no holes or tears etc) in any way. Damaged areas should be repaired before proceeding with later works. Any damaged part of the barrier can be repaired by overlaying it with a piece of membrane material, held in place by tape or sealant, to provide a minimum overlap of 150 mm.

Concern has been expressed about damage caused to the barrier when fixing sole plates for timber frame construction. While most fixings, particularly nail fixings tend to self-seal, it is advisable to apply flexible sealant between the barrier and soleplate at the point where a fixing is made (Figure 13).

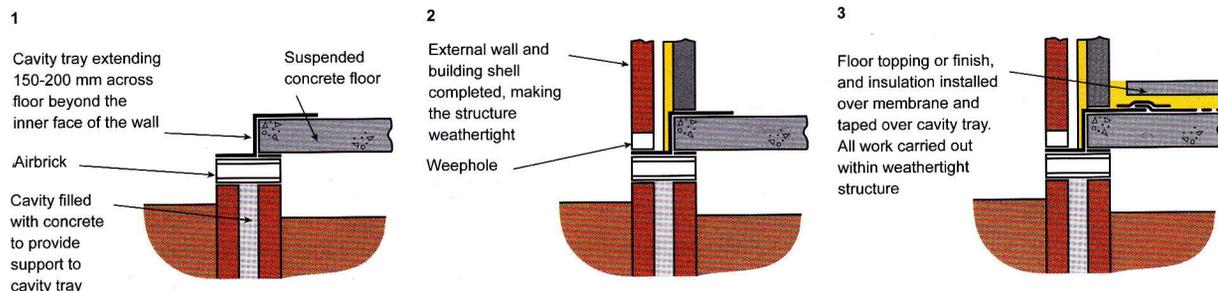


Figure 12: Construction steps to minimise damage to the barrier and enable sealing of barrier joints to be carried out in dry conditions