

8 ON-GROUND VAPOUR BARRIERS

8.1 Special considerations

8.1.1 General

Section 8 provides guidance for installing on-ground vapour barriers under suspended floors and shall be read in conjunction with sections 1 and 2.

On-ground vapour barriers are installed on the ground under suspended timber floors where there is an enclosed perimeter foundation to prevent ground moisture from evaporating into the subfloor space.

On-ground vapour barriers shall:

- (a) Be a polythene film;
- (b) Have a vapour flow resistance of no less than 50 MN s/g and a thickness of no less than 0.25 mm, for example 250 micron polythene.

C8.1.1

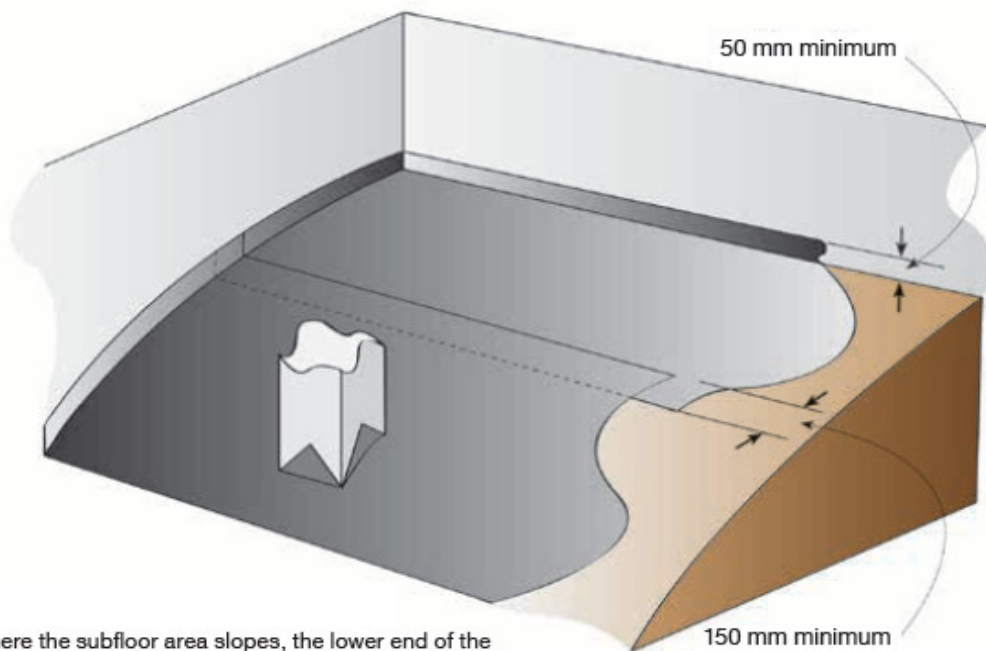
The need for vapour barriers can arise from a variety of situations, for example:

- (a) *Subfloor ventilation is inadequate;*
- (b) *Condensation is appearing in the roof space; or*
- (c) *The ground under the building is damp.*

Roof space condensation (particularly during winter) can be a significant problem in older buildings and is most often caused by the migration of moist air from the subfloor space to the roof space by the framing and drainage cavities. Buildings most commonly affected are those with masonry veneer cavities and suspended timber floors. The most effective remedy for this problem is to install a vapour barrier to the subfloor area to limit moisture emission from the subfloor space.

8.1.2 Tongue and groove flooring

Installing an on-ground vapour barrier to properties with tongue-and-groove type timber flooring creates a risk of gaps opening up between boards. This is most commonly found when timber flooring is damp and swollen. After the on-ground vapour barrier is installed the timber can dry out and shrink. This can cause flooring to creak under foot, or develop visible gaps between boards. Building owners should be made aware of this risk before installing an on-ground vapour barrier.



NOTE – Where the subfloor area slopes, the lower end of the damp proof membrane is not returned up the foundation to allow any water that hasn't been dispersed before reaching the lowest point to drain.

Figure 33 – On-ground vapour barrier folded up along foundation walls and overlapped along joins



Figure 34 – On-ground vapour barrier folded up and taped around a pile