



Understanding Bond Breakers

The principle of a bond-breaker system is to cater for building joint movement without breaching the waterproofing membrane.

The Objective: is to maintain the waterproofing membrane system so that it remains an impervious barrier to liquid or water.

The Strategy: is to detail the substrate joint with a combination of fillet, tape and membrane so that the membrane is not bonded directly to the substrate at the movement joint. *(The membrane may bond to the fillet or the bond-breaker tape)*

Unfortunately the NCC and Australian Standard's are not very definitive about Bond Breakers. The only definition is found in AS3740:

"A system that prevents the membrane bonding to the substrate, bedding or lining."

The elements are:

Fillets: are the flexible sealant which transitions the joint between the substrates. Typically the fillet will be a polyurethane or a neutral cure silicone, for use with Class II and Class III membranes

Bond-breaker Tapes: allow for movement of the substrate without bonding over the specific area of the movement or expansion joint. Tapes can be provided in many formats; stick on, rubber gusset, fabric etc.. Tapes are usually designed for the type of waterproofing membrane material application.

Waterproofing Membranes: The Standard defines three Classes of membrane which are typically either Sheet Membranes or Liquid Applied Membranes

**TABLE 3.2
APPROPRIATE BOND BREAKER**

Membrane class	Elongation at break	Minimum bond breaker/tape width to bridge joints opening up by 5 mm
I	<60%	75 mm with backing rod
II	60% to 300%	35 mm
III	>300%	12 mm

NOTES:

- 1 Bond breakers for Class I membranes (low extensibility) allow the membrane to flex rather than stretch.
- 2 Bond breakers for Class II membranes (medium extensibility) allow the membrane to stretch. If a tape is used as a bond breaker, either the membrane will not bond to the tape or the tape will have elastic properties similar to the membrane; for example, for a Class II membrane, a 35 mm wide bond breaker/tape should be applied over a joint to accommodate the joint opening up by up to 5 mm.
- 3 Bond breakers for Class III membranes (high extensibility) allow the membrane to have even thickness.



COMMENT:

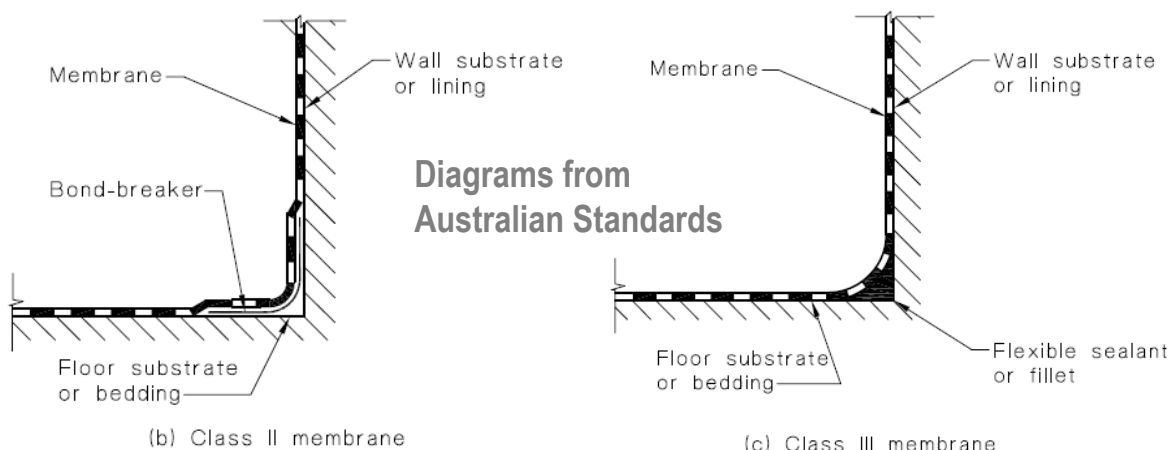
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The **minimum** requirement for a bond-breaker application is outlined in AS3740, Table 3.2. relating to the applicable Class of membrane.

Bond-breakers can be applied in many situations to solve the problem of building movement in both internal and external applications. A valid strategy of **exceeding** the Standard requirements is to combine the use of Fillets plus Bond-breaker Tapes with liquid applied Membranes (Class II & Class III)

When in doubt;

Follow the membrane manufacturer's recommended bond-breaker system.



Bond-breaker Tape Options

