Specifying flexible wall underlays
Designers need to specify the particular wall underlay that is to be used. Before making their final selection they should:

- read the manufacturer's technical literature and any independent product appraisal and be satisfied that the product selected is suitable for the situation it is being used in
- be aware of the maximum time the product can be exposed to the weather and determine if this is likely to be achieved on site – if exposure times are exceeded, product warranties may be voided
- ensure that accessories used with the wall underlay such as flexible flashing tapes are compatible with it – check with the supplier
- ensure that, where the flexible wall underlay is being used as an air barrier, it meets the air barrier requirements of Table 23 of E2/AS1
- ensure that the wall underlay is compatible with the timber treatment specified.

Measuring timber framing moisture content
When measuring timber framing moisture content, measurements are taken near the centre of the wide face of the stud or plate. The insulated probes of the moisture meter must be parallel to the grain. To obtain the specific moisture level, apply the appropriate correction factor for the species and treatment level (see BRANZ Bulletin 515).

Moisture in skillion roofs
It is common at this time of year for skillion roofs to appear to be leaking. Typically the cause of the moisture (damp patches on ceilings) is moist air getting into the confined ceiling space from the space below by air movement through openings such as downlights. The moisture in the air condenses on the cold underside of the roofing or roof sarking and drips down onto the ceiling. To avoid the problem, skillion roof ceilings should:

- incorporate an air barrier (a flush-stopped sheet-lined ceiling provides an air barrier provided there are no penetrations through it) – for an air leaky ceiling like timber boarding, a flexible air barrier complying with Table 23 of E2/AS1 should be installed first
- have no openings such as open or partially open downlights from the space below into the concealed space
- in wet areas, have penetrations through the ceiling such as electrical wiring sealed and sheet linings finished with an oil-based sealer or finish coat.

BRANZ seminars 2010 – Are we there yet?
The current building control system has been in place since 1992, with a major shake-up in 2004, particularly for weathertightness. This seminar series will be presented at 23 centres around the country and aims to see how far we have come and look at where improvements are still able still be made.

This will be done by:

- looking at current and recently completed research and its application to the design and construction of today's buildings
- considering the current approach to building design, with an emphasis on keeping out water and how this can be achieved through design
- analysing performance of details on site during the construction phase.

This seminar series will be of interest to a wide cross-section of industry, especially builders, designers and building officials.
Bookings are heavy for the last 2 weeks (Wellington and New Plymouth are fully booked), so be in quick to secure your place.

For architects, 30 CPD points are available. Dates and locations for this seminar are on our website – see www.branz.co.nz/seminar_venues.

Wet areas below skillion roofs such as bathrooms, showers, laundries and kitchens require positive ventilation (automatic extracts or passive permanently open ventilators) and low levels of permanent heating. Where extract ventilation is installed, it must be vented to the outside.

Waterproofing membranes for tiles
When specifying a waterproofing membrane for use in internal wet area tiling:

- identify the specific membrane to be used – it is not acceptable to state 'selected membrane' and leave it up to someone else to decide
- check that the membrane will be accepted by the BCA – does it have an independent appraisal to verify its performance and durability?
- ensure that the tile adhesive is compatible with the membrane – check with the membrane manufacturer
- identify the specific installation requirements such as reinforcing, number of coats, finished

thickness, required installation temperatures and curing times.

Choosing bottom plate fixings

When specifying bottom plate fixings, first decide what the fixing is for. Is it a bracing element or not?

If it is a bracing element:

1. Does it require hold downs?
2. If hold downs are necessary, what fixing capacity is required?
3. Look at the required fixing capacity and location of the specific bracing system.
4. Choose a verified fastener that meets the fixing capacity required.

If it is not a bracing element:

1. See NZS 3604 section 7 clause 7.5.12 for proprietary fastener capacity requirements and spacings.
2. Choose a verified fastener that satisfies the requirements set out in NZS 3604.

Other key considerations:

- Check the edge distances and depths required for the verified fasteners and whether they can be achieved.
- Determine the depth of concrete the fastener requires.
- Ensure that the fastener and its installation will meet the durability requirements. In the sea spray zone, concrete masonry foundations must have 60 mm cover to fixings (which may not be achievable with 90 mm framing) and concrete or concrete masonry foundations require a minimum of 25 MPa concrete or grout. Lesser cover may be allowable in other corrosion zones provided structural edge distance requirements for proprietary fasteners can be achieved.

H1 calculation method

When using the calculation method for H1 compliance, both NZS 4218:2004 and NZS 4218:2009 allow the use of lower values in the proposed building than those required by the reference building. However, these lower values must be compensated for in other areas of the thermal envelope by an increase in the level of thermal performance over that required in the reference building.

The limiting factors in the permissible reduction are that:

- the heat loss from the proposed building must be no greater than the reference building
- no building element construction R-value shall be less than that stated in clause E3 *Internal moisture*.

PrefabNZ workshop and behind the scenes tour

A workshop on Friday 24 September at Rollforming Services, East Tamaki, Auckland, will include a number of 5-minute industry overview presentations, a facilitated discussion around industry issues and opportunities in New Zealand's prefabrication industry and the role of PrefabNZ by PrefabNZ CE Pamela Bell, PrefabNZ Board members and other industry representatives. There will also be a behind the scenes tour at Rollforming Services.

This will be your chance to get up to speed with what is happening across New Zealand's prefabricated industry and to learn about marketing and development innovations that your business can benefit from.

Guideline *is a free monthly update on building issues prepared by BRANZ and funded by the Building Research Levy.*

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