



Guideline

April 2020 – Special issue

Welcome to this special issue of *Guideline* with advice for the building and construction industry about returning to worksites after the COVID-19 lockdown.

With the move from COVID-19 Alert Level 4 to Alert Level 3, builders and others are able to return to worksites. New protocols for keeping people safe on construction sites have been released – the [Residential Construction Protocols](#) and [Vertical and Horizontal Protocols](#) (for commercial and civil construction). It is vital that contractors, subbies and everyone who is permitted on and around sites understands and works to these new protocols.

In this issue, BRANZ provides guidance on building materials that have been exposed to the weather. Some materials may have been damaged or exceeded their exposure limits, affecting building consents, Building Code compliance and product warranties. Document the decisions and actions taken so your BCA can verify them for Code compliance.

Also in this issue: • [New URL for BRANZ Maps](#) • [First release of key Build articles](#)

Before returning to site

Make a complete list of the materials left exposed, then find exposure limits for each of them. You can find these in:

- building consent documents
- manufacturers' literature
- product warranties
- product Appraisals (for those with an Appraisal).

Identify which materials may have exceeded their limits. Contact the manufacturer, BCA or designer to check if a material:

- needs to be checked or tested
- should be replaced
- can be repaired or remedied
- can have its exposure limit extended given the weather conditions – if a manufacturer advises this, get it in writing.

When returning to site

- Identify whether any materials are damaged.
- Where you can't verify exposure limits or they are due to expire, protect the materials until they can be checked or the building closed in. Keep note of what you have done and take (and save) photographs.

- Any replacement materials must be as specified in the consent documents. Materials cannot be substituted without approval of the designer and BCA, and a consent variation may be required.
- Check and record moisture levels. Timber framing must be within permitted moisture levels before installing linings and claddings. Check manufacturers' literature and the figures in [NZS 3602:2003 Timber and wood-based products for use in building](#).
- Check excavations for soft spots from water ponding.
- Ensure ready-to-pour foundations are clear of debris and there is no water on the damp-proof membrane.
- In exposed coastal areas, clean off salt build-up, especially from metals.
- Work out how you would protect materials if there was a return to Alert Level 4.

Guidance on exposure limits

This is a general guide only. Read manufacturers' technical documents (and BRANZ Appraisals) and follow the instructions. In some harsh environments – for example, where extensive salt spray is carried in the air and deposited on surfaces – exposure times may be reduced.

Wall and roof building underlays: Wall – 30–60 days. Roof – around 7 days. Wall and roof underlays must retain at least 85% of their mechanical strength after UV exposure ([NZS 2295:2006 Pliable, permeable building underlays](#)).

Rigid wall underlays: Check exposure limits in manufacturers' technical literature. Acceptable moisture levels are essential before being sealed or encapsulated in walls.

Timber framing: Timber framing must be dried to moisture content levels in [NZS 3602:2003 Timber and wood-based products for use in building](#).

Kiln-dried timber should be kept dry. If it gets wet, let it dry thoroughly.

With H1.2 boron-treated framing exposed for over 3 months, verify that the treatment level is still adequate to satisfy [NZS 3640:2003 Chemical preservation of round and sawn timber](#).

Enclose framing as soon as practicable and keep floors under framing free of ponding water.

Particleboard and other reconstituted wood board (RWB) sheets: Some manufacturers say 2 months "but preferably keep to a minimum". Others say "must not come into direct or prolonged contact with water". Some products have protective coatings but others may not. Sheets may swell irreversibly and the surface roughen with moisture.

Engineered wood products (EWPs): Engineered wood products such as laminated veneer lumber (LVL), parallel-laminated timber (PLT) and glue-laminated timber (glulam) should have manufacturer-recommended procedures. These materials should be kept dry. EWPs need to be dried to acceptable moisture content levels before being sealed or encapsulated in walls, roofs or floors.

Plywood: Bracing sheets/membrane substrates – 3 months (preferably less). Membrane substrates should be protected from rain. They must be dry when the membrane is applied. Wall claddings should be coated immediately after installation to avoid staining, fading or wetting.

Steel reinforcing bars: Light rust is not a cause for concern. Do not use steel with pitting and extensive scaling unless it has been checked for strength and cross-sectional area limitations. If it meets these requirements, remove corrosion products (particularly loose products) before use. It is better not to use reinforcing bars with extensive surface corrosion and to replace with new.

Steel framing: Hot-dip galvanised steel framing could have quite long exposure without showing obvious corrosion. Check for white zinc-rich rust or red iron-rich rust where moisture could sit

around the bottom plate, damp-proof course and concrete floor. If you find corrosion, get expert advice to determine whether this will affect the required Building Code 50-year durability. Check unprotected areas (such as cut edges) for corrosion, although this risk should be low. Ensure gaps are dry before work continues.

Fibre-cement claddings: Fibre-cement sheets – 90 days. Fibre-cement weatherboards – keep dry until coated.

Metal sheet claddings: Check claddings have not been wet for extensive periods. Permanent surface staining might not be visually acceptable.

Fixings: Under [NZS 3604:2011 Timber-framed buildings](#), mild steel structural fixings can be used in closed spaces in timber-framed buildings. Check their conditions (head areas) in spaces not closed or protected during lockdown. Replace corroded fixings with new.

Joints and connections: For assembled components like frames, consider the joints and connections that can gather moisture. Ensure the timber or EWPs are within acceptable moisture content limits according to [NZS 3602:2003](#) before sealing them in a wall system.

Flashing tape: 30–90 days (some products allow up to 180 days).

BRANZ Maps: new URL

The URL for BRANZ Maps has changed. It is now:

<https://branz.maps.arcgis.com/apps/webappviewer/index.html?id=e64f302e59f84835b19e99270a305004>

If you have bookmarked this page, you will need to update it to the new URL.

First release of key Build articles

For the first time, selected articles from the June *Build* magazine are being published online ahead of print. This gets topical advice to you now when it is needed, 4–6 weeks ahead of when it will appear in print.

[Force majeure in a COVID-19 world](#) by Dentons Kensington Swan

[The supply chain and recovery](#) by Julien Leys, Chief Executive, Building Industry Federation of New Zealand

[Building business resilience](#) by David Kelly, CEO Registered Master Builders

[Building resilience in 2020](#) by Resilient Organisations

[Health and safety can help](#) by Site Safe

[Was your business prepared?](#) by Baker Tilly Staples Rodway

Check Build Online for further articles: www.buildmagazine.org.nz