



# Guidance for returning to building sites after a lockdown or closure



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# Contents

<b>1. HEALTH AND SAFETY</b>	<b>3</b>
Action: Prepare your COVID-19 Control Plan	3
Where to get help	3
<b>2. THE CONDITION OF YOUR SITE AND MATERIALS AFTER A LOCKDOWN/ CLOSURE</b>	<b>3</b>
Action: Before returning to site, check exposure limits and plan remediation	4
Action: When returning to site, check for damage and minimise exposure	4
Action: Plan for a return to Alert Level 4	4
Where to get help	4
<b>3. GUIDANCE ON EXPOSURE LIMITS</b>	<b>5</b>
Moisture content	5
Salt deposition	5
<b>Material hotspots</b>	5
Wall and roof building underlays	5
Rigid wall underlays	6
Timber framing	6
Particleboard and other reconstituted wood board (RWB) sheets	6
Engineered wood products (EWPs)	6
Plywood	7
Steel reinforcing bars	7
Steel framing	7
Fibre-cement claddings	7
Metal sheet claddings	7
Fixings	7
Joints and connections	8
Flashing tape	8
<b>FURTHER INFORMATION</b>	<b>8</b>
Need to talk?	8



# 1. Health and safety

## **Action:** Prepare your COVID-19 Control Plan

Two sets of health and safety protocols have been developed for working on construction sites at Alert Levels 2 and 3. The protocols include guidance for businesses on creating a COVID-19 Control Plan including protocols for physical distancing, hygiene, site entry and exit, deliveries and visitors.

It's very important for contractors, subbies and everyone who is permitted on and around sites to understand and work to these new protocols.

- [Residential Construction Protocols](#)
- [Vertical and Horizontal Protocols](#)

## Where to get help

### Site Safe

Get in contact with a [Site Safe Advisor](#) or call 0800 SITE SAFE [748 372]

### Registered Master Builders Association

Email: [rmb@masterbuilder.org.nz](mailto:rmb@masterbuilder.org.nz)  
Free phone: 0800 762 328

### New Zealand Certified Builders Association

Email: [info@nzcb.nz](mailto:info@nzcb.nz)  
Free phone: 0800 237 843

### Civil Contractors New Zealand

Email: [stacy@civilcontractors.co.nz](mailto:stacy@civilcontractors.co.nz)  
Mobile: 021 786 479

### CHASNZ

Email: [info@chasnz.org](mailto:info@chasnz.org)  
Free Phone: 0800 CHASNZ [242 769]

# 2. The condition of your site and materials after a lockdown or closure

Where building sites have not been adequately protected during a lockdown or site closure, or there have been significant delays due to COVID-19 restrictions, materials may have been exposed to the weather and been damaged or compromised. Some materials may have exceeded their exposure limits.

Building consents and warranties may be affected if materials have been damaged or substituted or have exceeded their exposure limits. It is essential that you assess the condition of your site and materials to identify what remedial action is needed.

Remember that any replacement materials must be as specified in the consent documentation. Materials cannot be substituted without the approval of the designer and the BCA, and a variation to the consent may be required.



**Action:** Before returning to site, check exposure limits and plan remediation

**1. Before returning to the site, check the following documentation for the exposure limits of each product/material:**

- Building consent documents.
- Manufacturers' technical literature.
- The conditions of product warranties.
- The conditions of product Appraisals (if it has an Appraisal).

**2. Identify which materials may have exceeded their exposure limits and draw up a remedial plan.** This may include contacting the manufacturer and/or your building consent authority (BCA) and/or the designer to find out whether:

- the material or product needs to be tested
- the material or product needs to be replaced
- the material or product can be repaired or remedied
- the exposure limits can be extended given weather conditions during the lockdown.

It is important that the decisions and actions taken are documented so your BCA can verify them for Code compliance. If the manufacturer provides advice on extending exposure limits, ensure this is in writing.

**Action:** When returning to site, check for damage and minimise exposure

**3. When returning to site:**

- Identify whether any materials have been damaged and draw up a remedial plan.
- If you can't verify the exposure limits of any materials or the exposure limits are due to expire, protect the materials to minimise exposure until the materials can be checked or tested or the building can be closed in. Document your actions, including taking photographs as evidence for the BCA.
- Check moisture levels.
- Check excavations for soft spots due to water ponding in clay-type soils.
- Ensure ready-to-pour foundations are clear of debris and there is no standing water on top of the damp-proof membrane (DPM).

**Action:** Plan for a return to Alert Level 4

**4. Prepare a plan for the possibility of moving back to Alert Level 4 and further site closures.** This will include protecting the site and materials to minimise exposure.

**Where to get help**

- Read the consent documentation and technical literature.
- Contact the designer of your project – the Design LBP of the BCA-stamped and approved building consent documentation as kept on site.
- Contact the product manufacturer.
- Contact your local BCA.
- Contact the BRANZ helpline 0800 80 80 85. While BRANZ staff may now be working at home, you can still contact us, including through the helpline.



## 3. Guidance on exposure limits

The following is general guidance only. With any building material, read the manufacturer's installation/application instructions (and BRANZ Appraisal, where available) and follow the recommendations and requirements. If there is no technical literature, check with your designer or BCA.

In some harsh environments – for example, where extensive salt spray is carried in the air and deposited on surfaces – exposure times may be reduced.

### Moisture content

Moisture content measurements should be extensively taken and recorded to ensure the following:

- Water isn't being sealed up inside cavities where it can't escape.
- Joints and connections have not been compromised. If water has collected in joints and connections, it can be wicked up through the end grain and potentially create areas of increased moisture content. Metal fastenings in these areas should also be evaluated where practical.
- Timber framing is below the maximum moisture content levels permitted for installation of products such as plasterboard and plywood.

[NZS 3602:2003 Timber and wood-based products for use in building](#) includes recommendations on moisture content levels for timber products. It includes a series of tables for various building areas and systems and moisture content ranges that need to be considered for different Building Code-required life spans. A free version of this standard can be found here: [www.standards.govt.nz/assets/Publication-files/BSP/NZS3602-2003.pdf](http://www.standards.govt.nz/assets/Publication-files/BSP/NZS3602-2003.pdf)

Plasterboard and plywood manufacturers have requirements for the moisture content level of timber framing that should be achieved before the product can be installed.

Check their technical literature.

### Salt deposition

In general, if salt deposition is found on the surface of a material, particularly metallic material, after this lockdown, clean and remove these deposits. This may happen in severe marine environments, although it should be rare given the weather of the past month.

## Material hotspots

### Wall and roof building underlays

Wall underlays have a typical UV exposure limit of 30–60 days maximum. Roof underlays tend to have a 7-day limit as they are typically covered straight away. There are extremes: some manufacturers say their products can last up to 180 days. [NZS 2295:2006 Pliable, permeable building underlays](#) requires roof and wall underlays to retain at least 85% of their mechanical strength after UV exposure. It sets out requirements for UV exposure testing. A free version of this standard can be found here: [www.standards.govt.nz/assets/Publication-files/BSP/NZS2295-2006+A1.pdf](http://www.standards.govt.nz/assets/Publication-files/BSP/NZS2295-2006+A1.pdf)



In addition, BRANZ considers that the product should also maintain resistance to water penetration (head of water) after UV exposure – i.e. 20 mm for wall underlays and 100 mm for roof underlays.

### **Rigid wall underlays**

In general, rigid wall underlays will need to be dried to acceptable moisture content levels before being sealed or encapsulated in walls.

The exposure limits of proprietary rigid wall underlays should be specified in their technical literature. Check with your designer or the product manufacturer.

### **Timber framing**

While there are no specific weather exposure limits for timber framing, watch for the following issues:

- Timber framing needs to be dried to acceptable moisture content levels as stipulated in [NZS 3602:2003 Timber and wood-based products for use in building](#). Check joints and bottom plates as moisture can get trapped here. A free version of this standard can be found here: [www.standards.govt.nz/assets/Publication-files/BSP/NZS3602-2003.pdf](http://www.standards.govt.nz/assets/Publication-files/BSP/NZS3602-2003.pdf)
- Kiln-dried timber should be kept dry. If it does get wet, it must be allowed to dry thoroughly.
- H1.2 boron-treated timber framing: Where H1.2 boron-treated timber framing has been left in the weather for more than 3 months – timber stored uncovered on site or as erected frames – you may need to verify that the treatment level is still adequate to satisfy the requirements of [NZS 3640:2003 Chemical preservation of round and sawn timber](#). A free version of this standard can be found here: [www.standards.govt.nz/assets/Publication-files/BSP/NZS3640-2003+A1-5.pdf](http://www.standards.govt.nz/assets/Publication-files/BSP/NZS3640-2003+A1-5.pdf)

Note that the pink colouring in the timber is not an indication of the concentration of boron left in the timber. The colour fades out very quickly (i.e. weeks/months depending on conditions) as it is not UV stabilised.

It is also prudent to take these actions:

- Minimise exposure by enclosing the framing as soon as is practicable.
- Keep floors that the framing is installed over free of ponding water.

### **Particleboard and other reconstituted wood board (RWB) sheets**

The exposure limits on these products vary. Some have protective coatings but others may not. These sheet materials may swell irreversibly if they get wet and the surface may become rougher. Some manufacturers limit exposure at 2 months “but preferably keep to a minimum”. Others say their product “must not come into direct or prolonged contact with water”.

### **Engineered wood products (EWPs)**

EWPs include plywood and panel products, laminated veneer lumber (LVL), cross-laminated timber (CLT), parallel-laminated timber (PLT) and glue-laminated timber (glulam). All of these should have some manufacturer-recommended procedures for what to do on site. These materials should be kept dry. In general, EWPs will not deteriorate or get rough like particleboard, but they need to be thoroughly dried to acceptable moisture content levels before being sealed or encapsulated in walls, roofs or floor systems. Where CLT and PLT are used for floor systems, it is possible that water may pond and potentially increase the possibility of increased moisture content levels if they have been exposed



for some time to the weather. These need to be thoroughly dried to acceptable moisture content levels as stipulated in [NZS 3602:2003](#) or manufacturers' technical literature.

A free version of this standard can be found here: [www.standards.govt.nz/assets/Publication-files/BSP/NZS3602-2003.pdf](http://www.standards.govt.nz/assets/Publication-files/BSP/NZS3602-2003.pdf)

## **Plywood**

Treated and untreated plywood bracing sheets/membrane substrates – exposure limit is 3 months but preferably less. Plywood membrane substrates should be protected from rain. They must be dry when the membrane is applied.

Plywood wall claddings should be coated immediately after installation to avoid surface staining, fading or wetting.

## **Steel reinforcing bars**

Exposed steel reinforcing bars may exhibit a light rust caused by prolonged exposure to moisture and air, but this is normal and not a cause for concern. However, if the steel is showing signs of chloride-induced corrosion such as pitting and extensive scaling to reinforcing bars, it should not be used unless the material has been checked for strength and cross-sectional area limitations. If the strength and cross-sectional area can meet specific requirements, remove the extensive corrosion products (particularly loose products) on the reinforcing bar surface before use. However, it would be better not to use reinforcing bars already showing extensive surface corrosion and to replace with new reinforcing bars.

## **Steel framing**

There are no specific weather exposure limits for steel framing. Steel framing protected by hot-dip galvanised zinc coating could be exposed to the atmosphere for quite a long time without showing obvious corrosion signs. However, one concern is with the bottom plate where water/moisture could sit in the gap between the plate, damp-proof course (DPC) and concrete floor. Check if premature corrosion (such as white zinc-rich rust or red iron-rich rust) is developing in these areas, especially if the framing structure is located in an area exposed to (severe) marine influences. If corrosion is revealed, it would be better to have expert inspection to determine whether this will affect the Building Code requirement for 50-year durability. Also check unprotected areas (such as cut edges) to see if there is extensive corrosion, particularly in (severe) marine environments, although this risk should be low. Also make sure these gaps are dry before work continues.

## **Fibre-cement claddings**

Fibre-cement sheets – exposure limit is typically 90 days.

Fibre-cement weatherboards should be kept dry until they are coated.

## **Metal sheet claddings**

For metal sheet claddings, check they have not been wet for extensive periods. If permanent surface staining has occurred, they might not be used.

## **Fixings**

According to [NZS 3604:2011 Timber-framed buildings, mild steel structural fixings](#) can be used in closed spaces in timber-framed buildings. It would be wise to check their condition (head areas) if these spaces were not closed/protected properly before the lockdown. If extensive corrosion is found, replace with new fixings.



## Joists and connections

For already assembled components like frames, it is important to consider the joints and connections that can gather moisture. These should be checked to ensure the timber or EWPs are within acceptable moisture content limits according to [NZS 3602:2003](#) before sealing them up in a wall system. A free version of this standard can be found here: [www.standards.govt.nz/assets/Publication-files/BSP/NZS3602-2003.pdf](http://www.standards.govt.nz/assets/Publication-files/BSP/NZS3602-2003.pdf)

## Flashing tape

Exposure limits are typically 30–90 days, but some products allow up to 180 days.

### Need to talk?

MATES in Construction is a mental health charity specifically designed for people working in the building and construction industry. The service supports all workers and subcontractors at our building sites.

People can connect with MATES in Construction, including a 24-hour support line (0800 111 315), or by free texting 5353. Find out more at [mates.net.nz](http://mates.net.nz).

## Further Information

- **MBIE's guidance** about COVID-19: [www.building.govt.nz/covid-19](http://www.building.govt.nz/covid-19)
- **Construction Sector Accord:** [www.constructionaccord.nz/news/news-stories/covid-19-response-plan-for-the-construction-sector/](http://www.constructionaccord.nz/news/news-stories/covid-19-response-plan-for-the-construction-sector/)
- **Master Builders Association:** [www.masterbuilder.org.nz/RMBA/News/COVID-19/RMBA\\_COVID-19\\_Resources.aspx](http://www.masterbuilder.org.nz/RMBA/News/COVID-19/RMBA_COVID-19_Resources.aspx)
- **Civil Contractors New Zealand:** [civilcontractors.co.nz](http://civilcontractors.co.nz)
- **CHASNZ:** [www.chasnz.org/covid19](http://www.chasnz.org/covid19)
- **New Zealand Institute of Architects:** [www.nzia.co.nz/explore/covid-19-information](http://www.nzia.co.nz/explore/covid-19-information)
- **Property Council New Zealand:** [www.propertynz.co.nz/covid-19](http://www.propertynz.co.nz/covid-19)