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SHADOWCLAD - GENERAL REPAIR & REPLACEMENT GUIDELINES

I. INTRODUCTION

Over the period of a building's life all cladding materials, including Shadowclad®, may require general repair and/or replacement to ensure long term durability and to maintain visual aesthetics.

This information bulletin has been created to provide guidance to building owners about the general repair and replacement of Shadowclad products. It is not intended as a complete installation guide, or a substitute for professional advice. You should ensure that you obtain the most recent version of the Shadowclad literature and take advice from an appropriately qualified building practitioner before undertaking any repair or replacement of Shadowclad installed on your building.

2. REQUIREMENTS UNDER THE NEW ZEALAND BUILDING CODE?

Does the Building Code apply to repair and maintenance?

All building work, whether or not it requires a building consent, must comply with the Building Code. This includes repair or replacement of exterior cladding. This means that, after the building work is completed, if the building complied with the current Building Code immediately before the work commenced, the building must continue to comply. If the building did not comply with the current Building Code immediately before the work began, the building must continue to comply at least to the same extent as it did previously (i.e. the work you have carried out cannot cause the building to be of a lower standard than it was prior to commencing the work).

Will I require consent?

As a general rule, a building consent is not required for a range of building repairs, maintenance, and replacement of parts, provided that comparable materials are used.

There are, however, key exceptions to this rule which apply when you are contemplating a repair or replacement of an exterior cladding product, such as Shadowclad. The exemption will not apply when you are undertaking a:

- a. Complete or substantial replacement of a specified system; or
- b. Complete or substantial replacement of any component or assembly contributing to the building's structural behaviour or fire-safety properties; or
- c. Repair or replacement (other than maintenance) of any component or assembly that has failed to satisfy the provisions of the Building Code for Durability, for example, through a failure to comply with the External Moisture requirements of the Building Code¹.

For further information refer to "Building work that does not require a building consent – Exemptions Guidance for Schedule 1 of the Building Act 2004" using the link below:

<https://www.building.govt.nz/assets/Uploads/projects-and-consents/building-work-consent-not-required-guidance.pdf>

¹Building Act 2004, Schedule 1. This means that replacing exterior wall cladding to some or all of a building that has failed within 15 years of the cladding being installed, resulting in damage to the wall framing is not exempt building work, and will require building consent.

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Carter Holt Harvey Plywood recommends that you seek advice from a professional with building knowledge or expertise about whether your repair or maintenance project requires a building consent.

Can I do the work myself if a building consent is not required?

While some exempt work can be carried out by anyone, cladding is essential to building performance and CHH Ply recommends engaging a suitability qualified building design professional to confirm that a building consent is not required and to ensure that any repairs, maintenance or replacement meet the requirements of the New Zealand Building Code.

3. GENERAL REPAIR OR REPLACEMENT OF DAMAGED SHADOWCLAD SHEETS

When general repair or replacement of Shadowclad cladding is being undertaken the installer must consider the following specific points prior to undertaking the work. Please note that this is not an exhaustive guideline and does not remove the requirement for the installer to read and understand the current Shadowclad Specification and Installation Guide, the Building Code and other relevant industry publications.

- Prior to Installation
 - Read the relevant and current Shadowclad Specification and Installation Guide in its entirety
- Sheet Cuts
 - Coat all sheet cuts with a preservative timber treatment such as Soudal® Metalex® clear
 - Ensure you apply your chosen surface coating (e.g. paint or stain) to the cut edges, after applying Soudal® Metalex® clear.
 - When installing the new sheet onto the building, position it so that the factory cut edge is at the bottom.
- Fastener Material Type
 - Galvanised fasteners or better to be used (stainless steel annular groove nails required in sea spray zones and microclimatic locations and with H3.2 CCA treated Shadowclad Ultra)
- Sheet Fastener Pattern
 - Around sheet edge - maximum 150mm centre spacing
 - Within the sheet body - maximum 300mm centre spacing
 - Fasten sheets independently of each other
- Horizontal sheet joints
 - Ensure a minimum 9mm separation gap between the upper sheet and all horizontal 'Z' flashings
 - Prime the bottom of the sheet edge and 150mm up the back and (rear) of the sheets
 - Place 50mm strip of neutral cure silicone sealant to ends at all 'Z' flashing terminations excluding terminations at Shadowclad Metal corner flashings
 - A 150mm back flashing or 150mm overlap is required to all Z flashing butt joints
- Expansion gaps between sheets (vertical sheet joints)
 - Texture profile sheets – 2mm gap between vertical edges of sheets

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- Grooved profile sheets – 9mm gap (i.e. full groove space) between vertical edges of sheets
- *Note: Expansion gaps are required between the vertical edges of sheets to accommodate natural expansion and contraction of the sheets (fasten sheets independently of each other and do not fix the under sheet through the weather groove)*
- Ground Clearances
 - Paved / Sealed Ground – minimum 100mm distance from the ground to the sheet bottom
 - Broken ground – minimum 175mm distance from the ground to the sheet bottom
 - Prime the bottom of the sheet 150mm up the back (rear) of the sheet
- Deck Clearances to cladding
 - Decks – Minimum 12mm clearance between the deck framing and the cladding to allow free drainage of external moisture and prevent debris build up

4. PENETRATIONS

Penetrations through external cladding components, like the installation of pipes, cables, ducts etc. can affect the building's structural performance, weatherproofing and fire-rating.

Penetrations not exceeding 300mm can, in certain circumstances, be undertaken without a building consent. Further information regarding this exemption can be found in the guidance document referred to above.

However, before penetrations are made through external cladding components CHH Ply recommends that you seek professional advice. Ensure the person carrying out the work is qualified and competent to do so and understands the Building Code requirements in relation to the building's structural performance, weatherproofing and fire rating.

Non-compliant building works may affect any insurance cover on the building, as well as any future sale of the property.

5. COATING AND APPLICATION – EXTERIOR CLADDING

Painted Shadowclad sheets need to be cleaned and recoated regularly to maintain a weather-resistant exterior. Please refer to the Information Bulletin "Shadowclad Maintenance" for further information.

6. EXTERIOR WALL CLADDING PROVIDING WALL BRACING

NZS 3602 prescribes specific criteria where exterior cladding has been designed to provide wall bracing. Where this is the case, special consideration is required for the general repair and replacement of sheets, taking into account treatment, painting, specific hold downs and other associated details.

CHH Ply recommends that you seek advice from a qualified building professional about whether your building features Shadowclad as a bracing element. If it does, please contact our technical team on 0800 326 759 for further information.

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7. REFERENCES AND SOURCES OF INFORMATION

- Shadowclad Specification and Installation Guide for cavity wall construction
- NZBC Clause E2 External Moisture
- NZBC Acceptable solution, E2/AS1
- NZS3602:2003 'Timber and Wood-based Product for use in Buildings'
- The Building Act 2004 Section 112 Alterations to existing buildings
 - www.legislation.govt.nz/act/public/2004/0072/latest/DLM306875.html
- Building work that does not require a building consent – Exemptions Guidance for Schedule 1 of the Building Act 2004. Fifth edition – August 2020, First Published March 2014