

FORMWORK

NATIONAL CONSTRUCTION CODE (NCC) COMPLIANCE BULLETIN



JANUARY 2024 | This version supersedes all previous issues.



THIS BULLETIN DETAILS RELEVANT NCC OF AUSTRALIA COMPLIANCE INFORMATION RELEVANT TO THE FOLLOWING LYSAGHT® FORMWORK PRODUCTS.

- BONDEK®
- BONDEK PLUS®

LYSAGHT® – YOUR GUARANTEE OF COMPLIANCE

The National Construction Code of Australia (NCC) details the minimum necessary requirements for safety, health, amenity and sustainability that need to be met in the design and construction of new buildings (and new building work in existing buildings) throughout Australia. Using products that do not conform to the NCC requirements can

leave installers, builders and suppliers liable for cost of replacement, rectification and consequential damages.

Lysaght's range of Australian-made steel building products has been developed, tested and manufactured to not only meet our country's demanding climatic and geographic requirements but also to provide building designers, builders and owners with the confidence that comes from using guaranteed compliant products.

The compliance statements overleaf outline compliance of Lysaght's formwork products with both the National Construction Code of Australia and the relevant Australian Standards for both Residential and Non-residential buildings.

NATIONAL CONSTRUCTION CODE OF AUSTRALIA (NCC) COMPLIANCE STATEMENT

LYSAGHT® FORMWORK PRODUCT RANGE



| | | | | | |
|---|--|---|--|--|--|
| Issuing entity: | BlueScope Steel Limited trading as Lysaght | | | | |
| Issue Date | January 2024 | | | | |
| Application | Composite structural decking formwork for class 2 to 9 Buildings (Non-Residential) and for class 1 and 10 Buildings (Residential) | | | | |
| Scope of Use | All products noted below may be used as composite structural decking formwork when designed using the individual technical data available for each product, accessible at lysaght.com | | | | |
| Product Brand | LYSAGHT® | | | | |
| PRODUCTS¹ | <ul style="list-style-type: none"> • BONDEK® • BONDEK PLUS® | | | | |
| Base Metal Brand | DECKFORM® steel | Low Glare DECKFORM® steel | DECKFORM® steel | Low Glare DECKFORM® steel | DECKFORM® steel |
| Typical Environments | For low to high corrosive environments >1000m from breaking surf >1000m from calm marine | For low to high corrosive environments >1000m from breaking surf >1000m from calm marine | For low to high corrosive environments >1000m from breaking surf >1000m from calm marine | For low to high corrosive environments >1000m from breaking surf >1000m from calm marine | For low to high corrosive environments >1000m from breaking surf >1000m from calm marine |
| Base Metal Thickness Range | 0.6mm – 1.2mm | 0.6mm – 1.2mm | 0.6mm – 1.2mm | 0.6mm – 1.2mm | 0.6mm – 1.2mm |
| Minimum Yield Strength | 550 MPa | 550 MPa | 550 MPa | 550 MPa | 550 MPa |
| Coating | Z350 | Z350 | Z450 | Z450 | Z600 |
| | 350 g/m ² minimum metallic coating mass, (Type Z) to AS 1397 | 350 g/m ² minimum metallic coating mass, (Type Z) to AS 1397 | 450 g/m ² minimum metallic coating mass, (Type Z) to AS 1397 | 450 g/m ² minimum metallic coating mass, (Type Z) to AS 1397 | 600 g/m ² minimum metallic coating mass, (Type Z) to AS 1397 |
| Warranty² | Passivated | Passivated and Resin coated to 1-2µm | Passivated | Passivated and Resin coated to 1-2µm | Passivated |
| | Up to 10 years | Up to 10 years | Up to 15 years | Up to 15 years | Up to 15 years |
| Combustibility | LYSAGHT® products manufactured from DECKFORM®, steel materials all have an Ignitability Index, Spread of Flame index and Heat Evolved Index of 0 (zero) and as such may be used whenever a non-combustible material is required in accordance with National Construction Code. | | | | |
| Acceptable Construction Manuals | BONDEK® Design and Construction Guide BONDEK® User Guide BONDEK PLUS® User Guide BONDEK PLUS® 2P User and Installation Guide LYSAGHT® Product Advisory Bulletins BlueScope Technical Bulletin TB-29 - DECKFORM® zinc-coated structural steel | | | | |
| Australian Standards Compliance | Lysaght published Limit State Capacities for Strength and Serviceability have been determined from testing at NATA ³ accredited facilities in compliance with the following standards. Additionally, full scale testing for Formwork, Composite and Fire have been completed in accordance with | AS/NZS 2327:2017 Composite Structures - Composite steel-concrete construction in buildings AS 3600:2018 - Concrete structures AS 4100:2020 - Steel structures AS/NZS 1530.3:1999 - Methods for fire tests on building materials, components and structures Part 3: Simultaneous determination of ignitability, flame propagation, heat release and smoke release (Reconfirmed 2016) AS 1530.4:2014 - Methods for fire tests on building materials, components and structures Part 4: Fire-resistance tests for elements of construction | | | |
| | Limit state capacities contained within the Acceptable Construction & Design Manuals are suitable to determine structural adequacy and serviceability in accordance with: | AS/NZS 1170.0:2002 - Structural design actions, Part 0: General principles AS/NZS 1170.1:2002 - Structural design actions, Part 1: Permanent, Imposed and other actions AS/NZS 1170.2:2021 - Structural design actions, Part 2: Wind actions AS/NZS 1170.3:2011 - Structural design actions, Part 3: Snow and ice actions AS/NZS 2327:2017 - Composite Structures - Composite steel-concrete construction in buildings AS 3600:2018 - Concrete structures AS 4100:2020 - Steel structures | | | |
| | BlueScope coated steel products have been determined to be compliant with the following standards: | AS 1397:2021 - Continuous hot-dip metallic coated steel sheet and strip - Coatings of zinc and zinc alloyed with aluminium and magnesium AS/NZS 2728:2013 - Prefinished/prepainted sheet metal products for interior/ exterior applications AS 1397:2021 - Defines the coating types and classes and steel grades for hot dip metallic coated steel. Product made to other standards may not meet the ductility or strength requirements assumed by design standards or the minimum coating class requirements critical to building durability. LYSAGHT® product coating compliance is nominated at "Coating" above. AS/NZS 2728:2013 - Prefinished/prepainted sheet metal products for interior/exterior building applications - Performance requirements 1.3.1 Metal products Hot dipped metallic coated steel (types Z, ZM, AZ, AM) AS 4586:2013 - Slip resistance classification of new pedestrian surface materials | | | |
| Compliance with the deemed-to-satisfy provision of the NCC | NCC Volume 1 - For class 2 to 9 Buildings (Non-Residential) <ul style="list-style-type: none"> • Section B - Structure, Part B1 - Structural Provisions: B1D1 - Structural Resistance; B1D2 - Determination of individual actions (Deemed-to-Satisfy Provisions); B1D3 - Structural provisions (Deemed-to-Satisfy Provisions); B1D4 - Determination of structural resistance of materials and forms of construction (Deemed-to-Satisfy Provisions), (b) (i) Concrete construction: AS 360, (d) Composite steel and concrete: AS/NZS 2327 • Section C2D1 Deemed-to-Satisfy Provisions, C2D2 Type of construction required, C2D10 Non-combustible building elements • Section F - Health and amenity, F7 Sound Transmission and Insulation, F7P1 Sound transmission through floors • Section J - Energy efficiency: J4D3 Thermal construction – General; J4D7 Floors | | | | |

Notes:

1. Not all products are available in all materials and finishes. Not all products are available in all regions. Visit lysaght.com for more information.
2. Warranties are subject to application and eligibility criteria. For full terms and conditions and warranty eligibility for BlueScope steel products visit warranties.bluescopesteel.com.au.
3. NATA – National Association of Testing Authorities.

UNDERSTANDING COMPLIANCE

The National Construction Code (NCC) outlines deemed-to-satisfy requirements for metal claddings based on compliance to Australian Standards. Whilst the applicable Australian Standards differ between Residential and Non-Residential buildings, the underlying common tenants are;

- a) That installed metal products must be able to meet expected Structural, Wind and Installation loads as per the Australian Standards,
- b) That installed metal products must be sufficiently durable to meet the amenity and sustainability requirements of the Australian Standard.

To determine a metal formwork's capacities and ability to comply with Australian design standards, metal formwork products must be tested in accordance with AS/NZS 2327. Metal formwork products that cannot demonstrate testing to AS/NZS 2327 and compliance with other relevant Australian Standards do not meet the deemed-to-comply provisions of the NCC.

LYSAGHT® steel building products have been tested in Lysaght's own NATA-accredited testing facility to meet all relevant Australian Standards as outlined in this document.

STATEMENT OF PRODUCT CONFORMANCE

This document confirms that the structural design capacity tables for LYSAGHT® Structural Formwork products included in the Acceptable Construction Manuals referenced in this bulletin have been prepared in accordance with the relevant Australian Standards & Deemed to satisfy provisions of NCC 2022 as referenced below.

Designs utilising data from these reference documents can form part of a structurally adequate assembly, subject to the following conditions:

- Installation of structural formwork products is in accordance with the Acceptable Construction Manuals referenced in this bulletin and accepted good construction practice.

CHAIN OF RESPONSIBILITY

It is the primary responsibility of each person in the value chain, from designer to supplier to installer to builder to ensure that products used on a building are;

- a) Suitable for the intended use, and;
- b) Comply with relevant Australian Standards and NCC provisions. Increasingly regulatory authorities are requiring documentary evidence of a products compliance to the requirements of the NCC.

Recent Queensland legislation goes further placing an onus on all members in the chain of responsibility to report the use of any non-conforming product.

DISCLAIMER, WARRANTIES AND LIMITATIONS OF LIABILITY

This publication is intended to be an aid for all trades and professionals involved with specifying and installing LYSAGHT® products and not be a substitute for professional judgement.

Terms and conditions of sale are available at lysaght.com/terms

Except to the extent to which liability may not lawfully be excluded or limited, BlueScope Steel Limited will not be under or incur any liability to you for any direct or indirect loss or damage (including, without limitation, consequential loss or damage such as loss of profit or anticipated profit, loss of use, damage to goodwill and loss due to delay) however caused (including, without limitation, breach of contract, negligence and/or breach of statute), which you may suffer or incur in connection with this publication.

INSIDE OUR BRANDS

Lysaght's range of steel building products are manufactured using Australia's leading coated steel materials.

DECKFORM® zinc coated steel from BlueScope is supplied to Lysaght in large coils. Lysaght then shapes and forms these materials (through the process known as rollforming) into our range of structural formwork products.

YOUR COMPLIANCE CHECKLIST

- Fully specify LYSAGHT® Profile, Finish & Coating class
- Check all details when you receive order confirmation
- On-Site - check delivery docket and product branding

FOR DETAILED PRODUCT INFORMATION,
MANUALS AND PROJECT CASE STUDIES VISIT:

[WWW.LYSAGHT.COM](https://www.lysaght.com)

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