## **PURLINS** 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® STEEL BUILDING PRODUCTS.

- LYSAGHT® ZEDS
- LYSAGHT<sup>®</sup> CEES
- HOOKLOK<sup>®</sup> BRIDGING CHANNELS
- SERIES 300 AND 350 BRIDGING
- LYSAGHT SUPAPURLIN®
- LYSAGHT SUPAZED®
- LYSAGHT SUPACEE®

- ESY-LOK<sup>™</sup> BRIDGING
- LYSAGHT<sup>®</sup> PURLIN ACCESSORIES
- ANGLE CONNECTORS
- RAKING GIRT BRACKETS
- GENERAL PURPOSE BRACKETS
- CLAMP PLATES

### 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 purlin 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 2022) COMPLIANCE STATEMENT LYSAGHT® PURLIN PRODUCT RANGE

Issuing entity:		BlueScope Steel Limited trading as Lysaght		
Issue Date		January 2024		
Application		Purlins, Girts, Bridging and accessories 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 purlin and or girt systems when designed using the individual technical data available for each product, accessible at lysaght.com		
Product Brand			LYSAGHT®	
PRODUCTS <sup>1</sup>		<ul> <li>Zed Purlin</li> <li>Cee Purlin</li> <li>SupaZed®</li> <li>SupaZed®</li> <li>SupaZed®</li> <li>HOOK-LOK® Bridging</li> <li>Series 300 and 350 Bridging</li> <li>Series 300 and 350 Bridging</li> <li>ESY-LOK® Bridging</li> <li>Purlin Accessories</li> <li>Angle Connectors</li> <li>Raking Girt Brackets</li> <li>General Purpose Brackets</li> <li>Clamp Plates</li> </ul>		<ul> <li>HOOK-LOK<sup>®</sup> Bridging</li> </ul>
Base Metal Brand		GALVASPAN® steel or ZINC HI-TEN® steel	GALVASPAN <sup>®</sup> steel	
Typical Environments		For low corrosive environments >1000m from breaking surf >300m from calm marine	For low to high corrosive environments >500m from breaking surf >150m from calm marine	For
Base Metal Thickness Range		1mm – 3mm	1mm – 3mm	
Minimum Yield Strength		450 MPa – 550 MPa (450 MPa for 1.5mm – 3.0mm BMT material)	450 MPa – 550 MPa (450 MPa for 1.5mm – 3.0mm BMT material)	
Coating		Z350	Z450	
		350 g/m <sup>2</sup> minimum metallic coating mass, (Type Z) to AS 1397	450 g/m <sup>2</sup> minimum metallic coating mass, (Type Z) to AS 1397	
Warranty <sup>2</sup>		Up to 10 years	Up to 10 years	
Combustibility		LYSAGHT® products manufactured from GALVASPAN® steel, ZINC HI-TEN® steel or GALVABOND® steel materials have an Ignitability Index, Spread of Flame index and Heat Evolved Index of 0 (zero) and as such may be used wherever a non-combustible material is required in accordance with		
Acceptable Construction Manuals		LYSAGHT SUPAPURLIN®, SupaZed® & SupaCee® Design and Installation Guide for Building Professionals LYSAGHT® ZEDS & CEES User guide of Design and Installation Professionals Lysaght Product Advisory Bulletins BlueScope Technical Bulletin TB-17 - Selection guide for zinc-coated steel purlin products		
Australian Standards Compliance	Lysaght published Limit State Capacities for Strength and Serviceability have been determined from testing at NATA <sup>3</sup> accredited facilities in compliance with the following standards:	AS/NZS 4600:2018 - Cold-formed steel 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)		
	Limit state capacities contained within the Acceptable Construction & Design Manuals are suitable to determine structural 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 4100:2020 - Steel structures AS/NZS 4600:2018 - Cold-formed 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 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 specifies requirements for the physical properties and long-term durability of pre-finished/pre-painted sheet metal products requirement 1.3.1 Metal products Hot dipped metallic coated steel (types Z, ZM, AZ, AM)		
		Data contained in listed Acceptable Construction and Design Manuals provides information to calculate compliance with: • NCC 2022 Volume 1 - For class 2 to 9 Buildings (Non-Residential) Section B - Structure, Part B1 - Structural Provisions: B1P2 - Structural Resistance; B1D3 Determination of individual actions (Deemed-to-Satisfy Provisions); B1D4 Determination of structural resistance of materials and forms of		

#### 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.

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.
 NATA – National Association of Testing Authorities.



ging Brackets

GALVABOND<sup>®</sup> steel For low corrosive environments >1000m from breaking surf >300m from calm marine 1.6mm – 2mm 300 MPa Z275 275 g/m² minimum metallic coating mass, (Type Z) to AS 1397 Up to 10 years

with National Construction Code.

as of construction (Deemed-to-Satisfy Provisions) (c) (ii) Cold-formed steel structures: AS/NZS 4600:2018.

**INSPIRATION TO BUILD BETTER** 

#### **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 steel purlin's capacities and ability to comply with Australian design standards, steel purlin products must be tested in accordance with AS/NZS 4600. Purlin products that cannot demonstrate testing to AS/NZS 4600 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<sup>®</sup> purlin 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 purlin 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<sup>®</sup> 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.

GALVASPAN® zinc coated steel, GALVABOND® zinc coated steel and ZINC HI-TEN® zinc coated steel from BlueScope are supplied to Lysaght in large coils. Lysaght then shapes and forms these materials (through the process known as rollforming) into our range of purlin 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

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