

# ZENITH™ ROOFING & WALLING

**LYSAGHT**

**STATEMENT OF COMPLIANCE**  
DESIGN & FLAMMABILITY



# LYSAGHT ZENITH™ ROOFING & WALLING

# STATEMENT OF COMPLIANCE

## DESIGN

THIS STATEMENT OF COMPLIANCE COVERS THE LYSAGHT ZENITH™ RANGE INCLUDING LYSAGHT IMPERIAL™, LONGLINE 305®, DOMINION™, BAROQUET™, AND ENSEAM™ AS CONTAINED IN THE “**LYSAGHT ZENITH™ ROOFING AND WALLING, DESIGN AND INSTALLATION MANUALS**”. THERE ARE TWO MANUALS - ONE FOR NON-CYCLONIC AREAS AND ONE FOR CYCLONIC AREAS.

The LYSAGHT ZENITH™ profiles have limit state capacities for strength and serviceability (published in tables contained within “**LYSAGHT ZENITH™ Roofing and Walling, Design and Installation Manual**”) and have been determined from testing in compliance with the following Australian Standards (and recent amendments):

- AS 1562.1: 2018 Design and installation of sheet roof and wall cladding. Part 1: Metal
- AS 4040.0 – 1992 (Reconfirmed 2016) Methods of testing sheet roof and wall cladding. Method 0 : Introduction, list of methods and general requirements
- AS 4040.1 – 1992 (Reconfirmed 2016) Methods of testing sheet roof and wall cladding. Method 1 : Resistance to concentrated loads
- AS 4040.2 – 1992 (Reconfirmed 2016) Methods of testing sheet roof and wall cladding. Method 2 : Resistance to wind pressures for non-cyclone regions
- AS 4040.3:2018 Methods of testing sheet roof and wall cladding. Method 3 : Resistance to wind pressures for cyclone regions

Additionally, LYSAGHT ZENITH™ profiles are manufactured from material that comply with the following Australian Standards (and recent amendments) and NCC requirements:

- Material of 0.55-0.75mm BMT G300 complying with AS 1397-2011 Continuous hot-dip metallic coated steel sheet and strip-Coatings of zinc and zinc alloyed with aluminium and magnesium
- Material metallic coating of AM100 and AM125 and AM150 complying with AS 1397-2011 Continuous hot-dip metallic coated steel sheet and strip-Coatings of zinc and zinc alloyed with aluminium and magnesium
- Paint finish complying with AS/NZS 2728:2013 Prefinished/prepainted sheet metal products for interior/exterior building applications-Performance requirements
- Fire tested complying with AS/NZS 1530.3:1999 (Reconfirmed 2016) Methods for fire tests on building materials, components and structures. Part 3: Simultaneous determination of ignitability, flame propagation, heat release and smoke release.
- Is defined as a “non-combustible material” complying with NCC 2016, Volume One, Section C – Fire Resistance, Part C1 – Fire Resistance and Stability, Clause C1.9 Non-combustible elements, Sub-clause 9e)

LIMIT STATE CAPACITY TABLES CONTAINED WITHIN “**LYSAGHT ZENITH™ ROOFING AND WALLING, DESIGN AND INSTALLATION MANUAL**” ARE SUITABLE TO DETERMINE STRUCTURAL AND SERVICEABILITY OF ZENITH™ PRODUCTS FOR INDIVIDUAL PROJECTS REFERENCING THE FOLLOWING AUSTRALIAN STANDARDS (AND RECENT AMENDMENTS) AND NCC REQUIREMENTS:

- NCC 2016, Volume One, Section B – Structure, Part B1 – Structural provisions (Deemed-to-Satisfy Provisions), Clause B1.1 Resistance to actions, and Clause B1.2 Determination of individual actions
- NCC 2016, Volume One, Section B - Structure, Specification B1.2 - Design of Buildings in Cyclonic Areas
- AS/NZS 1170.0:2002 Structural design actions, Part 0: General principles
- AS/NZS 1170.1:2002 (Reconfirmed 2016) Structural design actions, Part 1: Permanent, imposed and other actions
- AS/NZS 1170.2:2011 (Reconfirmed 2016) Structural design actions, Part 2: Wind actions
- AS/NZS1170.3:2011 (Reconfirmed 2016) Structural design actions, Part 3: Snow and ice actions

Cladding Design utilising data from “**LYSAGHT ZENITH™ Roofing and Walling, Design and Installation Manual**” will be structurally adequate subject to the following conditions:

1. Compliance with design data and connections contained within “**LYSAGHT ZENITH™ Roofing and Walling, Design and Installation Manual**”
2. Installation and Construction shall be in accordance with “**LYSAGHT ZENITH™ Roofing and Walling, Design and Installation Manual**” and accepted good practice
3. All input parameters for cladding design is the responsibility of the designer and are excluded from this Compliance Statement
4. This Compliance Statement becomes invalid if there are any pertinent changes to the relevant Australian Standards or the National Construction Code of Australia or relevant technical data which postdates this Compliance Statement

# FLAMMABILITY

## FLAMMABILITY

Refer to Lysaght Product Advisory Bulletin - PAB08 - Flammability of LYSAGHT® Steel Products for full testing details and technical specifications.

## SCOPE

Flammability of LYSAGHT® steel building products including roofing, walling, structural and rainwater goods manufactured from COLORBOND® steel, ZINCALUME® steel or galvanised steel from BlueScope.

## BLUESCOPE TESTING

BlueScope has commissioned CSIRO to undertake a comprehensive range of testing to determine the Flammability of various permutations of COLORBOND® steel, ZINCALUME® steel and galvanised steel material. These tests have been conducted in accordance with AS1530.3: SIMULTANEOUS DETERMINATION OF IGNITABILITY, FLAME PROPAGATION, HEAT RELEASE AND SMOKE RELEASE.

The results of this testing are summarised in the following table:

Product	Test Cert	Ignitability Index <sup>(1)</sup> (0-20)	Spread of Flame Index <sup>(2)</sup> (0-10)	Heat Evolved Index <sup>(3)</sup> (0-10)	Smoke Developed Index <sup>(4)</sup> (1-10)
0.70 BMT COLORBOND® Metallic steel	FNE11604	0	0	0	2
0.55 BMT COLORBOND® Metallic steel	FNE11606	0	0	0	1

## CONCLUSION

As a result of this testing we are able to determine that LYSAGHT® products manufactured from BlueScope's COLORBOND® steel, ZINCALUME® steel or galvanised steel materials all have a Spread-of-Flame index of 0 (zero) and as such are considered non-combustible materials in accordance with the National Construction Code clauses C1.12 (e) and C7.12 (e).

Additional information in relation to use of COLORBOND® steel products in bush fire prone areas may be sourced from the BlueScope Fact File Steel cladding details for bushfire-prone construction at: [www.bluescopesteel.com.au/tools-and-resources/bushfire-design](http://www.bluescopesteel.com.au/tools-and-resources/bushfire-design)



### IMPORTANT NOTE:

When considering the information presented in this bulletin it is important to understand the difference between "flammability" and "fire rating".

**Flammability** is a measure of how easily a specific material ignites or sustains a combustion reaction.

**Fire ratings** are applied to complete systems and not to individual materials or components of the system. Fire ratings, or Fire Resistance Level (FRL) refer to the fully constructed system's ability to withstand structural failure, prevent the spread/penetration of flames and ability to insulate interior elements from maximum specified temperatures. It is often expressed in minutes without failure for each of the three elements i.e. 60/60/60, -/120/120 anywhere from 30 minutes up to 240 minutes.

National Construction Code:

The National Construction Code (NCC) is an initiative of the Council of Australian Governments (COAG) developed to incorporate all on-site construction requirements into a single code. The NCC comprises the Building Code of Australia (BCA), Volumes One and Two; and the Plumbing Code of Australia (PCA), as Volume Three.





## PRODUCT DESCRIPTIONS

All descriptions, specifications, illustrations, drawings, data, dimensions and weights contained in this catalogue, all technical literature and websites containing information from Lysaght are approximations only. They are intended by Lysaght to be a general description for information and identification purposes and do not create a sale by description. Lysaght reserves the right at any time to:

(a) supply Goods with such minor modifications from its drawings and specifications as it sees fit; and  
(b) alter specifications shown in its promotional literature to reflect changes made after the date of such publication.

## DISCLAIMER, WARRANTIES AND LIMITATION OF LIABILITY

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

Terms and conditions of sale available at local Lysaght sales offices.

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