

## UNDERSTANDING COMPLIANCE

The NCC outlines deem-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 claddings and structural elements must be able to meet expected Structural, Wind and installation loads as per the Australian Standards.
- b) that installed metal claddings must be sufficiently durable to meet the amenity and sustainability requirements of the Australian Standards.

To determine a metal cladding's capacities and ability to comply with Australian design standards, metal cladding products must be tested in accordance with AS 4040.1. Additionally steel structural elements such as Fielders ARAMAX® must be tested to the requirements outlined in AS 4100 and AS/NZS 4600.

The determination of design capacities for light gauge structural cladding systems incorporating the complex interactions with structural connections, as used in ARAMAX®, cannot be determined without a comprehensive testing regime. Fielders have worked closely with The University of Sydney Engineering faculty to undertake such testing and build predictive design software, based on the outcomes of the testing regime.

Metal Cladding products that cannot demonstrate testing to AS 4040.1 and compliance with relevant AS 4100 and AS/NZS provisions do not meet the deemed-to-comply provisions of the NCC.

## CHAIN OF RESPONSIBILITY

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

- a) Suitable for the intended use
- 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. Using non-confirming products can leave installers, builders and suppliers liable for cost of replacement, rectification and consequential damages.

## INSIDE OUR BRANDS

Fielders range of steel building products are manufactured using Australia's leading coated steel materials. COLORBOND® steel and ZINCALUME® steel and are supplied to Fielders in large coils. Fielders then shapes and forms these materials (through the process known as rollforming) into their range of roofing profiles, cladding, gutters, fascias and downpipes, plus products for fencing systems and home additions such as verandahs, patios and carports.

### DISCLAIMER, WARRANTIES AND LIMITATION OF LIABILITY

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

Terms and conditions of sale available at local Fielders sales offices or via the Fielders websites.

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.

Warranties subject to application and eligibility criteria. For full terms and conditions and to determine the eligibility of your building for the warranty visit bluescopesteel.com.au/warranties or call BlueScope Steel on 1800 064 384.

COLORBOND® steel, ZINCALUME® steel, Thermatech®, BlueScope, the BlueScope brand mark, ® product and product brand names are registered trademarks and ™ product and product brand names are trademarks of BlueScope Steel Limited.

The Fielders® range of products is exclusively made by or for BlueScope Steel Limited trading as Fielders.

Thermatech® solar reflectance technology is not available in Night Sky®, or non-standard colours, and is not available in COLORBOND® Stainless steel, COLORBOND® Metallic steel, or COLORBOND® Coolmax® steel. To determine the most suitable material for your project, please contact your supplier or see steel.com.au/colorbond.

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## NATIONAL CONSTRUCTION CODE OF AUSTRALIA COMPLIANCE STATEMENT FOR FIELDERS ARAMAX®

DECEMBER 2021

THIS VERSION SUPERSEDES ALL PREVIOUS VERSIONS



THIS BULLETIN DETAILS RELEVANT NCC OF AUSTRALIA COMPLIANCE INFORMATION RELEVANT TO FIELDERS ARAMAX®.

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. Fielders range of Australian-made steel and aluminium 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 Fielders ARAMAX® with both the National Construction Code of Australia and the relevant Australian Standards for both Residential and Non-residential buildings.

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# NATIONAL CONSTRUCTION CODE OF AUSTRALIA (NCC) COMPLIANCE STATEMENT

## FIELDERS ARAMAX®



ISSUING IDENTITY: BLUESCOPE STEEL LIMITED		REFERENCE ID: FIEL-NCC-ARAMAX			ISSUE DATE: DECEMBER 2021	
APPLICATION		ROOFING and WALLING for class 2 to 9 Buildings (Non-Residential) and for class 1 and 10 Buildings (Residential)				
SCOPE OF USE		The product noted below may be used as roof and or wall cladding when designed using the individual technical data available for each product at <a href="https://specifying.fielders.com.au">https://specifying.fielders.com.au</a>				
APPLICABLE PRODUCT		FIELDERS ARAMAX®				
PRODUCT ATTRIBUTES	Base Metal Thickness Range	0.75mm - 1.2mm			1.2mm	
	Min Yield Strength	500 - 550 MPa			220-225 MPa	
BASE MATERIAL BRAND NAME	<b>Zincalume®</b> ZINCALUME® steel	<b>Colorbond®</b> COLORBOND® steel	<b>Colorbond®</b> COLORBOND® Ultra steel	<b>Colorbond®</b> COLORBOND® Metallic steel	<b>Pre-painted Aluminium</b>	
TYPICAL ENVIRONMENTS	For Benign environments; > 200m from breaking surf > 100m from calm marine	For Benign environments; > 200m from breaking surf > 100m from calm marine	For coastal and industrial environments; > 100m from breaking surf > 0m from calm marine	For Benign environments; > 400m from breaking surf > 200m from calm marine	For severe coastal and industrial environments; < 0m from breaking surf	
COATING	AM125	AM100	AM150	AM100	5251 / 5052 marine grade Aluminium alloy	
	125 g/m <sup>2</sup> minimum metallic coating mass, (aluminium/zinc/magnesium alloy) with Activate® technology to AS 1397:2011	100 g/m <sup>2</sup> minimum metallic coating mass, (aluminium/zinc/magnesium alloy) with Activate® technology to AS 1397:2011	150 g/m <sup>2</sup> minimum metallic coating mass, (aluminium/zinc/magnesium alloy) with Activate® technology to AS 1397:2011	100 g/m <sup>2</sup> minimum metallic coating mass, (aluminium/zinc/magnesium alloy) with Activate® technology to AS 1397:2011	N/A	
PAINT	N/A	Paint Coating to AS2728:2013 includes Thermatech® solar reflectance technology <sup>A</sup>	Paint Coating to AS2728:2013 Type 4 includes Thermatech® solar reflectance technology <sup>A</sup>	Paint Coating to AS2728:2013 Type 3 includes Thermatech® solar reflectance technology <sup>A</sup>	Paint Coating to AS2728:2013 includes Thermatech® solar reflectance technology <sup>A</sup>	
SOLAR ABSORPTANCE VALUE		range from 0.32 to 0.96		range from 0.32 to 0.96		
ROOFING APPLICATION WARRANTY	Up to 36Years*	Up to 36Years*	Up to 36Years*	Up to 30Years*	up to 40 years*	
WALLING APPLICATION WARRANTY	Up to 18Years* (Non - residential)	Up to 20Years* (Non - residential) Up to 15Years* (Residential)	Up to 20Years* (Non - residential) Up to 15Years* (Residential)	Up to 20Years* (Non - residential) Up to 10Years* (Residential)	Up to 30 years*	
COMBUSTIBILITY	Fielders products manufactured from COLORBOND®, ZINCALUME® or galvanised steel materials all have an Ignitability Index, Spread of Flame index and Heat Evolved Index of 0 (zero) and as such are considered non-combustible materials in accordance with the National Construction Code clauses C1.9.(e).(v) and 3.7.1.1.(e). Aluminium products manufactured from pre-painted aluminium materials 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 C1.9.(e).(v) and 3.7.1.1.(e).					
COMPLIANCE WITH THE DEEMED-TO-SATISFY PROVISION OF THE NCC	NCC Volume 1 - For class 2 to 9 Buildings (Non-Residential)					
	B1.0 Deem-to-Satisfy provisions B1.4 Determination of structural resistance of materials and form of construction (j) (iv) Metal roofing: AS1562.1:2018 (except in cyclone areas) (c) (i) Steel Structures: AS4600:2018 (ii) Cold Formed steel structures AS4100:1998 (R2016)					
	Section F1.0 Deemed - to - Satisfy Provisions - F1.5 Roof coverings Metal Sheet roofing complying with AS1562.1 : 2018					
	NCC Volume 2 - For class 1 and 10 Buildings (Housing Provisions) 3.5.1 Roof cladding Published Capacity tables in reference manuals noted below are suitable to determine structural adequacy and serviceability of nominated products for individual projects referencing the following Australian Standards 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					
ACCEPTABLE CONSTRUCTION AND DESIGN MANUALS:	AS1562.1:2018 - Design and Installation of sheet and wall cladding - Metal					
	Fielders ARAMAX® Profile data at <a href="https://specifying.Fielders.com.au/aramax/aramax-freespan/">https://specifying.Fielders.com.au/aramax/aramax-freespan/</a> Fielders project specific Custom design assessment to AS/NZS 4600:2018 Cold-Formed Steel Structures Code and AS 1664.1-1997 Aluminium Structures Code					
AUSTRALIAN STANDARDS COMPLIANCE	Fielders published Limit State Capacities for Strength and Serviceability have been determined from testing at NATA <sup>1</sup> accredited facilities in compliance with the following standards;					
	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 AS/NZS 4600:2018 Cold Formed Steel Structures Section 8 8.1 Testing for determining material properties 8.2 Testing for assessment or verification 8.3 Coefficient of variation of structural characteristics 8.4 Design Values AS 4100:1998 (R2016) Steel Structures : Section 17 Testing of Structures or Elements					
	Limit state capacities provided within the Fielders project specific design assessment 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 (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/NZS 1170.3:2011 (Reconfirmed 2016) Structural design actions, Part 3: Snow and ice actions					
	AS/NZS 4600:2018 Cold-Formed Steel Structures Code when used in accordance with Fielders project specific Custom design assessment				AS 1664.1 -1979 Aluminium Structures Code : Limit State Design when used in accordance with Fielders project specific Custom design assessment	
	AS 1562.1:2018 Design and Installation of sheet and wall cladding Part 1 : Metal Section 2.1.3 Steel: Requires metallic coated products to comply with; - AS 1397-2011 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 building applications - Performance requirements - AS 1397-2011 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.  Fielders product coating compliance is nominated at “Coating” above.  AS/NZS2728 specifies requirements for the physical properties and long-term durability of pre-finished/pre-painted sheet metal products. Fielders pre-painted compliance is nominated at “Paint” above for Performance requirement 1.3.1 Metal products Hot dipped metallic coated steel (types Z, ZM, AZ, AM) complying with AS1397, stainless steel, aluminium or aluminium ally in the form of sheet, coil or strip.					

<sup>A</sup> Thermatech® solar reflectance technology is incorporated in the standard COLORBOND® steel colour range, however excludes Night Sky®.

<sup>1</sup> National Association of Testing Authorities

\*Warranties subject to application and eligibility criteria. For full terms and conditions and to determine the eligibility of your product for a warranty visit [bluescopesteel.com.au/warranties](https://bluescopesteel.com.au/warranties) or call BlueScope on 1800 800 789.