



Engineering Evaluation Certificate:

Peak[®] Aluminium Handrail

National Construction Code 2022

Volume One, Volume Two and ABCB Housing Provisions

Building Code of Australia

WARNING No representation or warranty is given that your particular application of these products complies with relevant building codes or that the fasteners provided or used are appropriate for your application. Therefore consult with professionals and local building officials before beginning work: (i) to ensure compliance with relevant building codes for your application and for your proposed use of fasteners; (ii) to ensure the integrity of the structural components in connection with which these products are to be used; (iii) to identify appropriate safety gear that is to be used during installation such as a safety harness when working above ground; (iv) to ensure that the work area is free from utilities, services and hazards; and, (v) to clarify any instructions or warnings that may not be clear. Work in a safe manner wearing protective gear such as gloves, eyewear, headwear, footwear and clothing. When using tools always comply with operation manuals and instructions. Metal and glass may have sharp edges and could fragment or splinter during or as a result of handling or cutting. Do not use these products in connection with any substance that is or may be harmful or corrosive to the products. Inspect and maintain these products and the structural components that they are used in connection with on a regular basis using professionals when appropriate. This report has been prepared for certain standard residential applications. Obtain professional advice for any non-standard or non-residential application.



October 10, 2022

Peak Products Pty Ltd
20-22 Southern Court
Keysborough Victoria 3173
Australia

ENGINEERING EVALUATION CERTIFICATE: Peak® Aluminium Handrail, Modular Handrail

To whom it may concern:

Compliance:

I certify the **Peak® Aluminium Handrail, Modular Handrail** complies as a *Deemed-to-Satisfy Solution* complying with the following Parts of the National Construction Code (NCC) 2022 Volumes One and Two Building Code of Australia (BCA) & ABCB Housing Provisions:

- **Volume One,
D3D22 - Handrails,**
For domestic and residential applications in Class 2, 3 & Class 4 parts of buildings only.
- **Volume Two & ABCB Housing Provisions,
H5D3 & Part 11.3.1 – Barriers and Handrails**
For domestic and residential applications in Class 1 & 10 buildings only.

Conditions:

- Installation of the *Peak® Aluminium Handrail, Modular Handrail* shall be in accordance with the *Peak® Aluminium Handrail, Modular Handrail - Installation Guide (I112PB_V2)*.
- Peak® Aluminium Handrail, Modular Handrail* is suited for applications where D3D22(1)(e), D3D22(1)(f) & D3D22(4) are not applicable.
- Particular attention shall be paid to the structural adequacy of all connections to supporting structures designed by others. Supporting structures other than the *Peak® Aluminium Balustrade posts* installed in accordance with the *Peak® Aluminium Balustrade - Installation Guide*, shall be independently verified as capable of providing the necessary structural support to the *Peak® Aluminium Handrail, Modular Handrail*.
- It is a requirement that product selection, and incorporation into the building design, shall be made by a competent person who is conversant with the application and technical aspects of the product, and has ready access to the relevant technical information related to the product use.

Limitations:

- This appraisal does not deal with materials safety, site safety or safe work practices in any form. Specification and installation should only be considered in conjunction with reference to appropriate hazards.
- This certification does not deal with the quality assurance aspects of the manufacturing, transportation and installation processes.

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Design documents – Specifications / Test Reports / Engineering:

Specifications:	Prepared by:	Date:
Peak® Aluminium Handrail, Modular Handrail – Installation Guide (II12PB_V2) (see Attachment 1)	Peak Products Pty Limited	2021
Report - Modular Handrail AUS PAB 210511-R0E (see Attachment 2)	Peak Products Pty Limited	11 May 2021

Test Reports:	Prepared by:	Date:
Test Report MT-21-0082, Load Testing of a Peak Modular Handrail Kit	Melbourne Testing Services	12 April 2021

Engineering:	Prepared by:	Date:
Report No: ACA 210602 221010, October 10 th , 2022, Peak® Aluminium Handrail, Modular Handrail: NCC 2022 Volumes One & Two, Building Code of Australia – Appraisal – Handrail (domestic and residential activities)	Acronem Consulting Australia Pty Ltd	10 October 2022

Signature:

Date:

10TH OCTOBER 2022

CAMERON CHICK BE(HONS), PH.D, GC.COM.(MKTG), M.AIRAH, RPEQ
for and on behalf of ACRONEM CONSULTING AUSTRALIA PTY LTD
REGISTERED PROFESSIONAL ENGINEER, VIC. (CIVIL): PE0000967, QLD. (STRUCTURAL): 15370



Attachment 1: Excerpt – Page 4, Anchoring Fasteners for Australia (for wall applications only), *Peak® Aluminium Handrail, Modular Handrail – Installation Guide (II12PB_V2)*



Anchoring fasteners for Australia
(for wall application only)



Engineering design has determined appropriate fasteners for the attachment of the brackets to concrete or timber structures designed by others.

While the types of material are defined in the table below, the ability of the supporting structure to provide adequate support to Peak® Aluminium Handrail system and its fasteners must be independently verified for each installation.

To meet certain handrail load requirements within AS/NZS 1170.1:2002, purchase the following fasteners. Building codes may vary. Always understand and comply with your local building codes. For further information visit: peakbalustrade.com.au/compliance

Fasteners for attaching brackets to concrete:

Concrete	Fasteners Required	Minimum Embedment ¹	Minimum Edge Distance
Minimum concrete strength 25 MPa	1x Ramset™ WERCS Ankascrew™ anchor, M8 x 75 mm	51 mm	70 mm
	1x Ramset™ Ankascrew™ anchor, M8 x 75 mm		

Fasteners for attaching brackets to timber:

Timber	Fasteners Required	Minimum Embedment ¹	Minimum End and Edge Distance
JD3 - e.g. Seasoned, Mixed Australian Hardwood	1x M8 Coach Screw ²	60 mm	End: 64 mm Edge: 32 mm
	1x 18G Wood Screw ³	60 mm	End: 73 mm Edge: 54 mm
J3 - e.g. Unseasoned, Mixed Australian Hardwood	1x M8 Coach Screw ²	65 mm	End: 64 mm Edge: 32 mm
	1x 18G Wood Screw ³	90 mm	End: 73 mm Edge: 54 mm
JD4 - e.g. Seasoned, Mixed Softwood Species	1x M8 Coach Screw ²	65 mm	End: 64 mm Edge: 32 mm
	1x 18G Wood Screw ³	80 mm	End: 73 mm Edge: 54 mm
J4 - e.g. Unseasoned, Pine, Radiata, Australia	1x M8 Coach Screw ²	80 mm	End: 64 mm Edge: 32 mm
	1x 18G Wood Screw ³	115 mm	End: 73 mm Edge: 54 mm

¹ Depth of the threaded portion of the screw into the innermost member.
² Material of steel coach screws shall be given in AS/NZS 4291.1, for property classes 4.6 and 4.8.
³ Steel material strength of the 18G (7.72 mm) wood screw shall meet the requirements of AS 1720.1.

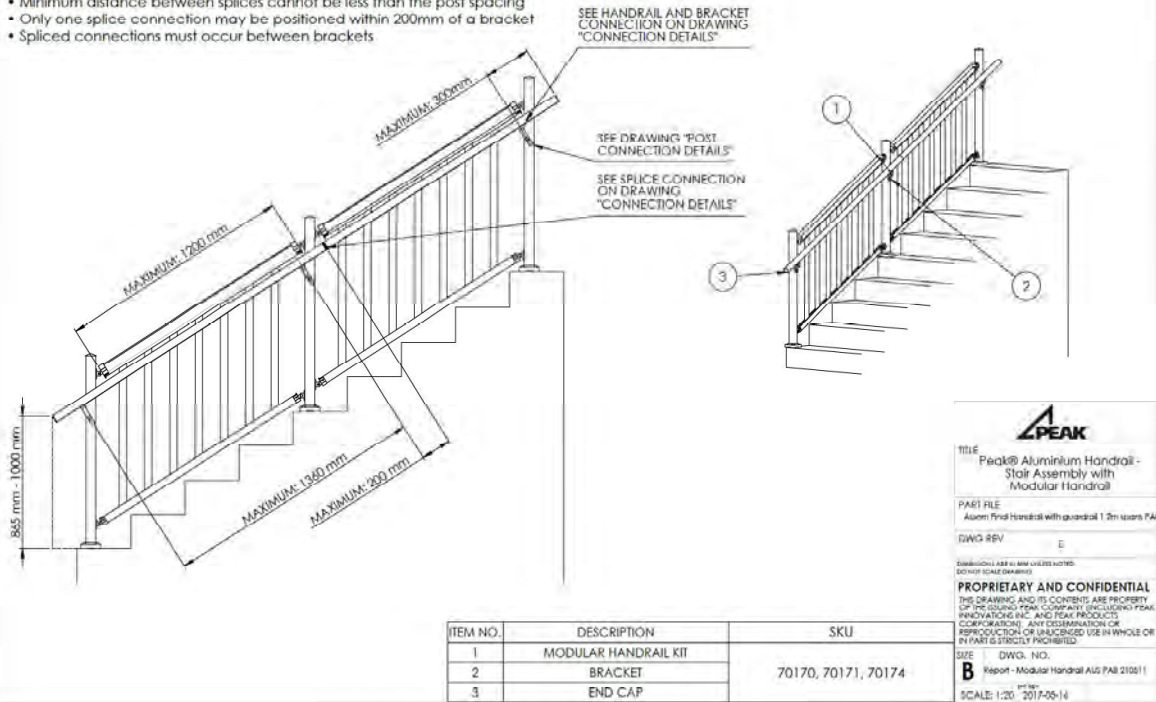


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Attachment 2: Report - Modular Handrail AUS PAB 210511-R0E

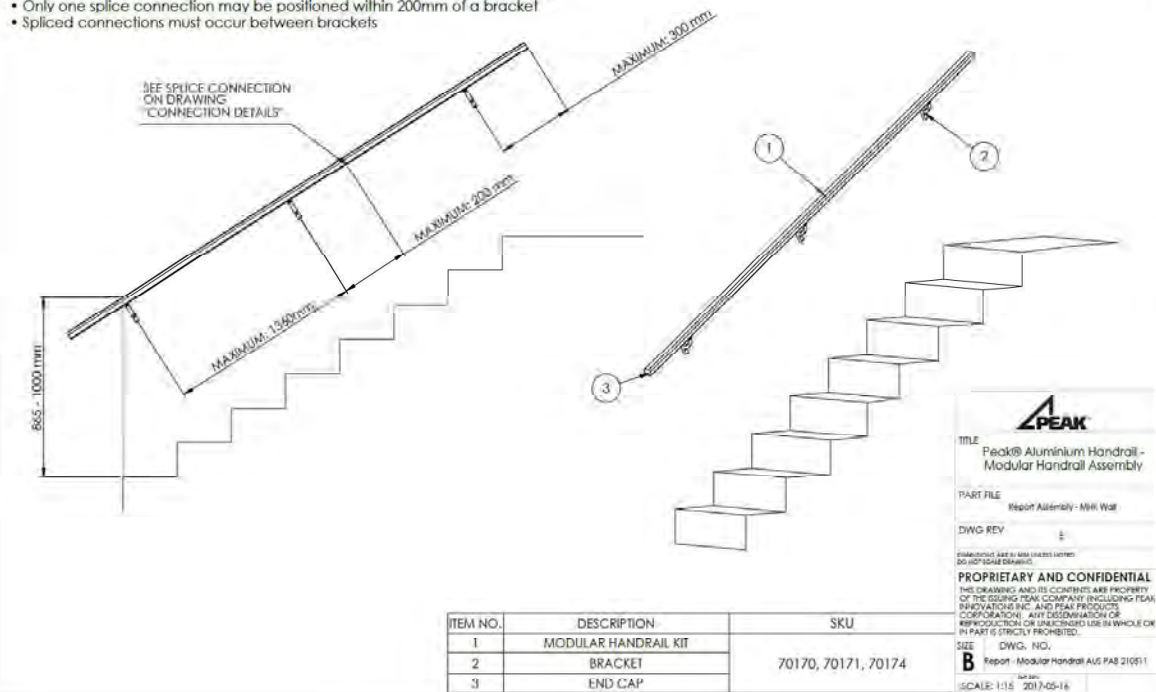
NOTE:

- No more than one splice can be installed between two adjacent brackets
- Minimum distance between splices cannot be less than the post spacing
- Only one splice connection may be positioned within 200mm of a bracket
- Spliced connections must occur between brackets



NOTE:

- No more than one splice can be installed between two adjacent brackets
- Minimum distance between splices cannot be less than the bracket spacing
- Only one splice connection may be positioned within 200mm of a bracket
- Spliced connections must occur between brackets



October 10, 2022

