



## LOOK FOR ICCONS® NCC LOGO TO ENSURE YOU ARE USING COMPLIANT PRODUCTS



### • **What is Australian Standard AS 5216:2021?**

**AS 5216:2021 (Design of post-installed and cast-in fastenings in concrete)** is an Australian Standard published by Standards Australia that outlines the minimum requirements for the selection, design, and assessment of cast-in anchor channel and post installed fasteners published 23rd July 2021.

### • **Does AS 5216:2021 apply to the building and construction industry?**

On May 1st 2023 the National Construction Code (NCC 2022) will be updated to include **AS 5216:2021** as a referenced document in the Building Code of Australia (BCA) Volumes 1 & Housing Provisions Standard. {Ref. Vol. 1 Section B1D4 and Housing Provisions Standard Section 2.2.4}.

### • **What is covered by AS 5216:2021?**

Post installed and cast in fastenings for 'Safety Critical' applications in concrete only.

### • **What is a 'safety-critical' application?**

Where failure may result in collapse or partial collapse of the structure, endanger human life and/or cause considerable economic loss. A safety critical application should be determined by a suitability qualified design engineer.

### • **What isn't covered by AS 5216:2021?**

Fastening design including fire design, fatigue design, temporary fasteners etc.. For applications outside the scope of **AS 5216:2021** please refer to anchor manufacturers for guidance.

### • **Can I use a fastener with an ETA (European Technical Assessment/approval)?**

Yes, products that carry a current ETA comply with the requirements in **AS 5216:2021**. A suitably qualified design engineer must determine suitability of these fasteners prior to use.

### • **What's new in AS 5216:2021?**

Australian Standard for the design of post-installed and cast-in fastenings in concrete, **AS 5216** was updated in July 2021.

#### **AS 5216:2021 now includes the following additions:**

- ✓ Design of fastenings under seismic actions
- ✓ Design of post-installed reinforcing bar connections
- ✓ Design of redundant non-structural fasteners
- ✓ Design of anchor channel loaded in shear in the longitudinal direction

### • **Is AS 5216:2018 valid?**

National Construction Code (NCC 2019) references AS 5216:2018 which meets the deemed-to-satisfy requirements of the NCC is no longer valid upon the release of NCC 2022 on 1st May 2023.

### • **Is AS 5216:2021 mandatory?**

Australian Standards are voluntary documents and are only recommendations. Standards become mandatory (law) only if they are referenced in the NCC and/or other contractual documentation.

### • **When will the National Construction code (NCC 2019) be updated?**

NCC 2022 was released on 1st May 2023. The ABCB, which publishes the NCC has approved AS 5216:2021 and AS 5216:2021 is now a primary reference in NCC 2022 thus superseding all references to AS 5216:2018.

### • **Is any ETA assessed product OK?**

No, ETA compliant products all have different levels of assessment and must be designed for a specific application by a suitably qualified design engineer responsible for the application.



• ***I have been supplied a product that claims to have an ETA assessment, however, the product packaging and TDS (Technical Data Sheet) are different to the supplied ETA report, can I use the product?***

ETA assessed products should be clearly marked along with packaging and the TDS that identifies the ETA assessed product. This identification and traceability should correspond EXACTLY with the ETA number, supplier details and product markings listed in the product ETA. If a supplier cannot provide this clear traceability then you should return the product to the supplier immediately for a full refund.

• ***Is an altered/edited ETA assessment valid for commercial use?***

ETA assessments should always be provided in original condition as issued by the independent technical authority, if you receive an ETA that has been altered or obscured of any information then this is deemed invalid and should be removed from circulation and reported to the relevant authority/ETA holder.

• ***Can I use a non-ETA assessed product?***

Yes, provided you; a) Follow an NCC Performance Solution (previously Alternative Solution method) and have the design engineer responsible for the application sign off on the data & product. b) Submit testing & certification report on the proposed product that states compliance with **AS 5216** Appendix A.

• ***Can ICCONS® help me with compliance to AS 5216?***

Yes, ICCONS® has a comprehensive range of ETA assessed and **AS 5216** compliant mechanical and chemical anchoring systems for post-installed applications, please refer to [www.iccons.com.au](http://www.iccons.com.au).

• ***Do Brace Inserts need to comply with the Australian Standard?***

Brace inserts for bracing of concrete prefabricated panels must comply with AS 3850.1:2015 appendix A9. Refer to the ICCONS® PBA20115 anchor.

• ***Are temporary applications covered in AS 5216?***

No, temporary applications are not covered in **AS 5216**, please refer to product manufacturer/supplier for guidance.

• ***How is the NCC enforced?***

NCC requirements are legally binding, governed by States and Territories Building Acts, and enforced by Building Certifiers / Surveyors.

• ***Where does liability rest if a wrong fixing is used and something fails?***

Liability rests with everyone involved in the construction and building process. Designers must specify suitable products, contractors must source and use those products and suppliers/distributors must supply compliant products. Builders & Contractors must ensure sign-off by Building Certifiers. Those in the chain that do not comply make themselves legally liable!

• ***As a distributor of post installed chemical and mechanical anchors, what are my obligations?***

Always ask your customer the question – Is your application “Safety Critical”??? If the answer is “YES” supply **AS 5216** complaint fixings for all applications that are safety critical. If your customer cannot ascertain if their fixing needs are safety critical, simply supply a product that is **AS 5216** compliant.

**DON'T TAKE THE RISK!**

• ***Why should I use a PGM Certified drill bit?*** 

European Technical Approvals / Assessments (ETA's) for anchors and their installation demands the use of suitable drill bits. Suitable drill bits can be identified under site conditions by simply looking for the PGM mark on the drill bit. The PGM mark is a symbol of quality and provides the installer with a correctly drilled hole for safe anchor installation.

• ***What is ICCONS® DesignPRO Software?***

ICCONS® DesignPRO Software is a simple, intuitive and **free to download** (access it at [www.iccons.com.au](http://www.iccons.com.au) 'Support & Downloads') anchor design program for Design Engineers, Project Managers, Site Engineers and End Users. Complex mechanical or chemical heavy duty anchor arrangements can be calculated in minutes. DesignPRO is based on **AS 5216:2021** which is now directly referenced in the National Construction Code (NCC 2022).

***Products should always be approved before use by a design professional responsible for the application.***