NCC FAQ's on AS 5216 / SA TS 101





National Construction Code

Rev.2 August 2018

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1. What is SA TS 101:2015?

SA TS 101:2015 is a technical specification (TS) published by Standards Australia that outlines the minimum requirements for the design, testing and assessment of cast-in anchor channel and post installed fasteners. This document has been superseded by **AS 5216:2018**.

2. What is AS 5216:2018?

AS 5216:2018 (Design of post-installed and cast-in fastenings in concrete) is a new 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 and supersedes **SA TS 101:2015**. The technical content is the same with the addition of some editorial modifications and corrections.

3. Does SA TS 101:2015 still apply to the building and construction industry?

On May 1st 2016 the National Construction Code (NCC) was updated to include **SA TS 101:2015** as a referenced document in Building Code of Australia (BCA) Volumes 1 & 2. {Ref. Vol. 1 clause B1.4 (b) (iii) and Vol. 2 clause 3.11.6 (f) (iii)}.

Even though **AS 5216:2018** supersedes **SA TS 101:2015**, **SA TS 101:2015** is the official document to follow when complying with the deemed-to –satisfy requirements.

The National Construction Code is under revision at the moment and the new version will be released in early 2019. It is expected that **AS 5216:2018** will be referenced in the 2019 NCC.

4. What is covered by AS 5216:2018 / SA TS 101:2015?

Post Installed fasteners for 'Safety Critical' applications in concrete only.

5. What is 'Safety Critical'?

Safety critical applications are where failure may endanger human life, result in collapse or partial collapse of the structure, and/or cause considerable economic loss.

6. What isn't covered by AS 5216:2018 / SA TS 101:2015?

All other types of fastening design including seismic design, fire design and stress development of rebar (ref. to AS3600) etc... For applications outside the scope of **AS 5216:2018 / SA TS 101:2015** 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 5216:2018 / SA TS 101:2015**. A suitably qualified design engineer must determine suitability of these fasteners prior to use.

7. **Do I need to comply with SA TS 101:2015 & 2016 NCC?**

If your building is designed (post 1st May 2016) and referenced according to the 2016 NCC and is based on a deemed to satisfy solution, which most buildings are, then all post-installed fasteners must comply with **SA TS 101**. **This requirements is a mandatory and legal obligation**.

8. Do I need to comply with any standards for applications outside the NCC such as Infrastructure projects?

For safety critical applications in concrete only all post-installed fastenings must be designed in accordance with **AS 5216:2018** where applicable.

9. 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 5216:2018 / SA TS 101:2015**. A suitably qualified design engineer must determine suitability of these fasteners prior to use.

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10. Is any ETA approved product ok?

No, ETA compliant products must be designed for a specific application by a suitably qualified design engineer responsible for the application.

11. Can I use a non-ETA approved 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 either **AS 5216:2018 Appendix A or SA TS 101:2015 Appendix B.** (Ref. –"Compliance with the NCC", http://www.abcb.gov.au/Resources/Publications/Education-Training/Compliance-with-the-NCC).

12. Can ICCONS help me with compliance to AS 5216:2018 / SA TS 101:2015?

Yes, ICCONS has a comprehensive range of ETA approved and **AS 5216:2018 / SA TS 101:2015** compliant mechanical and chemical anchoring systems for post-installed applications, please refer to www.iccons.com.au .

13. What about Brace Inserts?

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

14. Are temporary applications covered in AS 5216:2018 / SA TS 101:2015?

No, temporary applications are not covered in **AS 5216:2018 / SA TS 101:2015**, please refer to product manufacturer/supplier for guidance.

15. How is the NCC enforced?

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

16. 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 suitable products. Builders & Contractors must ensure sign-off by Building Certifiers. Those in the chain that do not comply make themselves legally liable!

17. Is there a 'grace' period between the 1st May 2016 and into the future where it's OK to not follow the NCC and SA TS 101: 2015?

No, as of 1st May 2016 any building that is designed in accordance with the 2016 NCC must show compliance either via a Deemed-to-Satisfy solution (SA TS 101) or a Performance Solution. Refer to 2016 NCC BCA Volume 1 AO.2 and A2.2.

18. As a distributor of post installed chemical and mechanical anchors, what are my obligations? Always ask your customer the guestion – Is your application "Safety Critical"???

If the answer is "YES" supply **AS 5216:2018 / SA TS 101:2015** complaint fixings for all applications that are safety critical. If your customer cannot ascertain if their fixing needs are safety critical or not simply supply a product that is **AS 5216:2018 / SA TS 101:2015** compliant. Don't take the risk!

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