



## AS 2785:2020

### Suspended Ceilings - Design and Installation

The Australian Standard for Design and Installation of Suspended Ceilings was previously updated over 20 years ago.

The last two decades has seen massive developments in concrete anchoring technology and guideline standards. AS/NZS2785:2000 was drafted before reliable concrete anchoring standards had been published, concrete anchor capacities were not regulated, and published load capacities may not have provided an allowance for anchoring into the overhead "tension zone" of the concrete soffit.

Earlier this year the updated standard AS/NZS2785:2020 Suspended Ceilings – Design and Installation was released. The revised standard was required to align with many newer related standards, most specifically AS5216:2018 *Design of post-installed and cast-in fastenings in concrete*.

### AS/NZS2785:2020 Fastener Selection

AS/NZS 5216:2018 *Design of post-installed and cast-in fastenings in concrete* has now been directly referenced within AS/NZS 2785:2020. AS5216:2018 provides clear guidance for the design and selection of appropriate concrete fixings for applications deemed "Safety Critical". "Safety Critical" means that failure may have serious consequences, e.g. result in collapse or partial collapse of the structure and includes non-structural components. Given the overhead nature of Suspended Ceilings, it should be a generally accepted principle that all Suspended Ceilings are classified a "Safety Critical" application.

AS5216:2018 compliant concrete fasteners should be tested and assessed (prequalified) in accordance with AS5216:2018 Appendix A. Fasteners with a current European Technical Assessment (ETA) are compatible for Design under AS5216:2018.

Shot Driven (Powder Actuated, Gas & Battery) fixings into concrete are currently outside of

the scope of AS 5216:2018. The relatively shallow embedment of Shot Driven fixings can result in unreliable performance in Cracked Concrete and are unable to match the performance of post-installed ETA approved fastenings.

Modern Post-installed Concrete Fixings are designed to be robust, high performing and easy to install. Talk to your local ICCONS representative about our range of AS/NZS2785:2020 compliant fasteners.

### ICCONS TSM High Performance Screw Anchors

ICCONS TSM High Performance Screw Anchors feature quick and safe installation as well as high load capacities in both cracked and non-cracked concrete due to the concrete undercut load transmission. Many sizes have also been tested and assessed under Seismic C1/C2 requirements. The TSM can be easily removed if required and does not leave residual metal components in the concrete. Loads can be achieved immediately upon installation.

### TOGE TSM CONCRETE SCREWBOLTS



Engineered Notches for easier installation, reduced torque and reduced concrete spalling.

ZINC CLEAR INTERNAL USE



Part No.	Description	mm	mm	mm	mm	Nm	qty
TSM06043	6 x 43mm	6	40*	3	13	160	100
TSM06050	6 x 50mm			10		160	100
TSM06060	6 x 60mm			20		160	100
TSM06080	6 x 80mm			40		160	100
TSM08050	8 x 50mm	8	45*	5	13	300	50
TSM08060	8 x 60mm			15		300	50
TSM08070	8 x 70mm			25		300	50
TSM08080	8 x 80mm			35		300	50

C1 Seismic assessment only valid for the following embedment depths: TSM06 - 40mm + 55mm / TSM08 - 65mm.

C2 Seismic assessment only valid for the following embedment depths: TSM08 - 65mm

\*Minimum concrete embedment. Application specific embedment should be selected by the responsible person. Refer ICCONS Technical Datasheet for further details.