

Building Product Information Sheet

Class 1

Product Name:

Blue Head - 15KN Bracing Solution

Date of Report:

06 / 11 / 2023

Product Line:

Screw Bolts

Product Description and its intended use:

The SXTB10140G, SXTB10150G and SXTB10200G ThunderBolt[®]Pro anchors have been independently tested and achieved a characteristic tie down load of 15kN (minimum) in 20 MPa concrete. The SXTB10140G, SXTB10150G and SXTB10200G ThunderBolt[®]Pro anchors are suitable for use as proprietary bracing solution.

The ICCONS[®] ThunderBolt[®]Pro is the latest design in high performance screw-in, self tapping concrete anchors for use in a wide range of concrete and masonry base materials. The ICCONS[®] ThunderBolt[®]Pro achieves high loads while generating low expansion forces making it ideal for close to edge applications. Available in a mechanically galvanised finish, The ThunderBolt[®]Pro is the perfect solution for use as a perimeter fixing, complying with New Zealand standard Timber framed buildings NZS3604;2011 ref 7.5.12.2 / 7.5.12.4.

Key technical specifications:

- Product type: Screw Bolt
- Finish options: High Tensile Boron Steel Zinc Yellow, High Tensile Boron Steel Galvanised
- Head colour options: Black head, White head, Blue head.
- Special features: colour coded head, head marking includes length and diameter.

Product Identifier

Bottom Plate Screwbolts

Place of Manufacture:

Overseas

Manufacturer:

ICCONS PTY LTD

Importer:

Sesto Fasteners Limited

Address: 5e Piermark Drive
Rosedale, Auckland
Postcode: 0632
Website: www.sestofasteners.co.nz
Email: orders@sestofasteners.co.nz
Phone: +64 94158564
NZBN: 9429041704103

Relevant Building Code Clauses:

- B1 Structure: Performance clauses B1.1, B1.2, B1.3.1, B1.3.2, B1.3.3, B1.3.4
- B2 Durability: Performance clauses B2.2
- E2 External Moisture: Performance clause E2.2.3.3
- E3 Internal Moisture: Functional requirement E3.2
- F2 Hazardous Building Materials: Performance clause F2.3.1

Statement on how the building product is expected to contribute to compliance:

- B1 Structure: clauses B1.1, B1.2, B1.3.1, B1.3.2, B1.3.3, B1.3.4:
 - ICCONS Bottom Plate Screwbolts utilise the ICCONS ThunderBolt Pro, which is the latest design in high performance screw-in, self tapping concrete anchors for use in a wide range of concrete and masonry base materials.
 - The ICCONS ThunderBolt Pro achieves high loads while generating low expansion forces making it ideal for close to edge applications.
 - Available in a mechanically galvanised finish, the ThunderBolt Pro anchors are suitable for use as proprietary bracing solutions complying with New Zealand timber framed buildings Standard NZS3604:2011 ref. 7.5.12.2 / 7.5.12.4
 - SXB08140G White Screwbolts have been independently tested for fixing perimeter bottom plates:
 - Design Tension load 7kN.
 - Design In Plane Shear load 2kN.
 - Design Out of Plane Shear load 3kN.
 - Results are in accordance with BRANZ test report No.125(2004) and the evaluation of the results are in accordance with BRANZ evaluation method EM1 (1999).
 - Independently tested, full report is available. Refer to document 'Independent Test Report' for the Swinburne University of Technology testing data (report number SSL -10074), dated April 2019. Available in the link below:
https://sestofasteners.co.nz/products/bottom-plate-screwbolt-white-head?_pos=1&_sid=6d5f07b40&_ss=r
 - SXB08100G Black Screwbolts meets load requirements in accordance with New Zealand Standard NSS3604:2011 where edge distance is not a factor. Refer to ICCONS document TDS / 1015.2 (NZ).
 - Refer to document 'Internal Bracing Solution' (page 1) for the Minimum Design Capacities (kN) data summary, derived from the test report SSL-10074. Minimum Design Capacity data according to NZS 3604-2011 Clause 7.5.12.3
 - B2 Durability: Performance clauses B2.2
 - ICCONS Bottom Plate Screwbolts are available in high tensile boron steel yellow zinc, and high tensile boron steel galvanised.
 - Material specifications:
 - Anchor body: Mechanically galvanised, heat treated 10821 Steel.
 - Plating: Galvanised Coating thickness 45 microns (minimum).
 - SXB08100G and SXB08140G ThunderBolt Pro anchors for use as a bottom plate solution are coated with a proprietary mechanically galvanised coating (Nautilus XTEND) designed to achieve 1000 hours in a Neutral Salt spray test (NSS). The life expectancy of the SXB08100G and SXB08140G anchors will depend on the environment where the products are installed, for internal dry environments, the SXB08100G and SXB08140G have a life expectancy of 50 years (minimum). The SXB08100G and SXB08140G also comply with durability requirements for all zones in a closed environment as stipulated in NZS 3604-2011, table 4.1.
 - E2 External Moisture: Performance clause E2.2.3.3
 - Screwbolt Bottom Plate Solutions (utilising ICCONS Thunderbolt PRO bolts) are available in a mechanically galvanised finish, making it the perfect solution for use as a perimeter fixing in accordance with NZ Building Code clauses E2 and E3. Refer to the B2 durability section for further detail on the coating.
 - E3 Internal Moisture: Functional requirement E3.2
 - Screwbolt Bottom Plate Solutions (utilising ICCONS Thunderbolt PRO bolts) are available in a mechanically galvanised finish, making it the perfect solution for use as a perimeter fixing in accordance with NZ Building Code clauses E2 and E3. Refer to the B2 durability section for further detail on the coating.
 - F2 Hazardous Building Materials: Performance clause F2.3.1
 - Bottom Plate Screw Bolt anchors are safe when handled.
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Limitations on the use of the building product:

- Note on document 'Internal Bracing Solution': Warranty: This technical document has been prepared to provide guidance for design professionals and trades people in the correct selection and use of proprietary bottom plate fixings designed to comply with requirements stipulated in NZS 3604-2011, clause 7.5.12.3 & 4. ICCONS and SESTO Fasteners shall not be held liable for any claim, damage, demand expense, injury or loss, direct, incidental or consequential, based on product misuse and factors outside the control of both ICCONS and SESTO Fasteners.
- Refer to section 'Installation requirements' for cautions and requirements of installation.
- Exceeding the torque values provided in document 'Install Torque Specs' may damage the fixture and over stress the anchor in the drilled hole. Training, expertise and good judgment is required when installing Bottom Plate Screw Bolt anchors.

Design requirements that would support the use of the building product:

ThunderBolt Bottom Plate Screwbolts have been designed for use in the following applications:

- A range of Bottom Plate perimeter applications based on head colour and size.
- Blue Head Screwbolts: Proprietary bracing system. Suitable for 15kN Bracing perimeter, 7kN perimeter and 2kN internal.
 - 1) Blue 140mm Screwbolt: for single Bottom Plate.
 - 2) Blue 150mm Screwbolt: for single Bottom Plate including packer (up to 12mm).
 - 3) Blue 200mm Screwbolt: for Double Bottom Plate Bracing.
- White Head Screwbolts (M8 x 140mm): Fixing external perimeter Bottom Plates. Suitable for 7kN perimeter fixing.
- Black Head Screwbolts (M8 x 100mm): Fixing internal Bottom Plates. Suitable for 2kN internal fixing.
- Edge to edge applications.

Features that support use of the building product:

- Full head marking for inspection and traceability.
- Head marking includes length and diameter: post inspection at a glance.
- Removable, adjustable and reusable.
- Non expansion anchors, and so do not pre-load the substrate.
- Hex head allows to be set with a power tool for faster install.
- Higher load capacity by diameter compared to throughbolts.
- Reduced diameter allows better edge distance performance.
- Colour coded head for ease of use.
- Independently tested and code compliant.
- Smaller diameter than through-bolt alternatives gives less chance of hitting steel.

Installation requirements:

ICCONS Bottom Plate Fixings must be installed in accordance with ICCONS published installation instructions.

Installation steps:

1. Using a 8mm drill bit, drill a hole to the depth of at least one diameter deeper than the required embedment depth.
2. Clean dust and other material from the hole.
3. Install with either a socket or cordless impact driver. Apply pressure against the fixing and rotate to engage the first thread. Continue to tighten the anchor until flanged head is firmly seated against fixture.
4. Installation complete!

- Use the correct diameter drill bit.
- DO NOT use a worn drill bit outside tolerance specification. Worn Drill bits will affect the anchor installation either during installation or post installation.
- Ensure the hole is drilled perpendicular to the concrete, with a maximum deviation up to 5 degrees. Failure to do so may cause anchor breakage.
- When installing with an Impact screw gun do not exceed the recommended torque specifications, failure to comply may result in anchor breakage.
- Do Not over tighten and exceed the recommended clamping torque requirements, failure to comply may result in anchor breakage.

- Impact Screw Gun Torque Specification:

- Important: always refer to specific product torque specifications prior to installation. This can be found in ICCONS Technical Data Sheets, ICCONS Product Guide or on the individuals product labels.

- Refer to the document 'Install Torque Specs' for guide values for Clamping Torque and Impact Screw Driver Torque when installing ICCONS ThunderBolt products. Available in the link below:

https://sestofasteners.co.nz/products/bottom-plate-screwbolt-white-head?_pos=1&_sid=6d5f07b40&_ss=r

Maintenance requirements:

N/A. no ongoing maintenance required.

Is the building product subject to warning or ban under section 26?:

No

