

3DAC FLAT TOP SELF DRILLING SCREWS

CLASS 3 MECHANICAL GALVANIZED

CERTIFICATION

TECHNICAL DATA



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3DAC FLAT TOP SELF DRILLING SCREWS

CLASS 3 MECHANICAL GALVANIZED

Flat Top Self Drilling Screws are designed to eliminate bulging underneath your plasterboard. Suitable for light gauge steel connections with the self-drilling screw point. Galvanized finish.

These can be used for structural metal drywall studs, façade studs, and slotted deflection track.



MATERIAL SPECIFICATIONS

TABLE 1: MATERIAL SPECIFICATIONS

MATERIAL	Heat Treated Carbon Steel
COATING	Class 3 Mechanical Galvanized
HEAD TYPE	Flat Top
DRIVE TYPE	Phillips No. 2
THREAD TYPE	Coarse
POINT TYPE	Self Drilling Point No. 3
GAUGE/THREAD	12g-14
DRILL CAPACITY	1.5 – 3.0mm Combined Material

COATING SPECIFICATIONS

Class 3 mechanical galvanized coating is a high-performance, corrosion-resistant zinc coating (often mixed with tin) applied via a cold-welding process, providing moderate to high protection (0.80 oz/sq ft or higher) for fasteners and wire. It resists rust for 1,000+ hours in salt spray, often used for outdoor construction, treated timber, and coastal roofing screws.

KEY ASPECTS OF CLASS 3 MECHANICAL GALVANIZED COATING

- **Synonyms/Related Classifications:** Often referred to under standard AS3566 C3 (for fasteners) or ASTM B695 (Class 50 or higher for thickness).
- **Application Process:** Mechanically applied (not hot-dipped) using glass beads topeen zinc powder onto parts in a tumbling barrel, avoiding hydrogen embrittlement on high-strength steel.
- **Composition:** A dense, uniform layer typically composed of zinc, sometimes with tin for added corrosion resistance.
- **Usage Examples:** Used on structural bolts, screws in coastal areas, farm/mesh fencing, and fasteners for wood construction (especially treated lumber).

KEY ADVANTAGES

- **Corrosion Resistance:** Offers superior protection compared to Class 1 or electro-galvanized, lasting 15–30 years.
- **No Hydrogen Embrittlement:** Suitable for high-strength steel (HRC 45+).
- **Uniform Coating:** Allows for precise, even thickness on complex parts.

MECHANICAL PROPERTIES

TABLE 2: MECHANICAL PROPERTIES (SCALED ESTIMATES)

SINGLE SHEAR	6,900 N
AXIAL TENSILE	14,800 N
TORSIONAL STRENGTH	10.2 Nm

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MATERIAL SPECIFICATIONS**TABLE 3: PULL-OUT DATA - G450 STEEL (kN)**

1.0 mm	1.2 mm	1.5 mm	1.9 mm	2.4 mm
3.4 kN	4.3 kN	5.2 kN	7.0 kN	10.1 kN

*Values shown are engineering-based scaled estimates derived from tested 10g-16 data. Apply appropriate safety factors.

ORDERING INFORMATION**TABLE 4: 3DAC FLAT TOP SELF DRILLING SCREW ORDERING INFORMATION**

PART NUMBER	SIZE	FINISH	QTY/BOX
3DACG12100	12-14 x 1"	Class 3 Mechanical Galvanized	500