



## ISF 18A Mechanical Fixings for Insulated Plasterboard

Fire resistant mechanical fixings for insulated plasterboard, which ensure stability of boards in a fire. Can be used to compliment or replace plasterboard adhesives. Supplied in stainless steel or plated carbon steel.

Thor Helical manufacture a range of fire resistant mechanical fixings for insulated plasterboard systems. They are suitable for fixing plasterboard backed with foam, polystyrene or mineral wool in solid internal wall insulation applications. The Insofast ISF-18A is a one piece fixing that has a large dish-profiled head mounted on a precision engineered helical shank.

The plasterboard fixings are suitable for use with all types of drywall boards. They can be used in conjunction with drywall adhesive (3 per board) or in place of it (12 to 18 per board). In both cases they ensure stability of the boards in the event of a fire and prevent plasterboard from falling on persons escaping a blazing building, or on persons entering a burning building for rescue purposes.

A 4mm to 5mm pilot hole is needed when fixing insulated panels to brick or block; the diameter dependent upon on the strength of the masonry. The fastener drives through plasterboard/insulation laminate and corkscrews directly into aerated gas concrete blocks or softwood without the need for a pilot hole. The concave dished head compresses the gyprock layer without tearing the paper surface, leaving a deep recess ready for accepting and retaining filler material.

Cold bridging is minimised thanks to a thermally efficient 7mm spiral shaft that has a cross sectional area just 10mm<sup>2</sup>. This small cross section reduces cold bridging by 75% when compared to a standard fixings of the same diameter. Mechanical fixings for insulated plasterboard are available in zinc-plated carbon steel. For improved thermal performance, and additional protection against corrosion, Thor Helical also supplies a stainless steel version. Stainless steel is 4 times less conductive than zinc plated carbon steel.

### PRODUCT SPECIFICATION

Mechanical fixings for insulated plasterboard are available in a choice of zinc plated 8.8 high tensile steel or AISI304 stainless steel.

Insofast ISF-18A plasterboard fixings are available in standard lengths of:

- 65mm, 85mm, 105mm, 125mm, 145mm, 170mm

### PERFORMANCE LOADS

MATERIAL/EMBEDMENT	PULL OUT	PULL THROUGH
Aircrete / 60mm	649N	N/A
Brick / 50mm	622N	N/A
Softwood / 35mm	681N	N/A
Plasterboard / 9.5mm	N/A	255N
Plasterboard / 12.5mm	N/A	340N

### TYPICAL MECHANICAL PROPERTIES OF THOR HELICAL DRYWALL FASTENERS

STAINLESS STEEL	VALUE
Ultimate Tensile Strength	=> 11.0kN
Load at 0.2% Proof Stress	=> 8.8kN

ZINC PLATED CARBON STEEL	VALUE
Ultimate Tensile Strength	=> 5.5kN
Load at 0.2% Proof Stress	=> 4.9kN