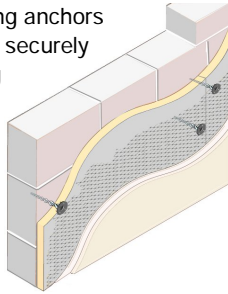


THOR HELICAL[®] STRUCTURAL INSULATION ANCHORS

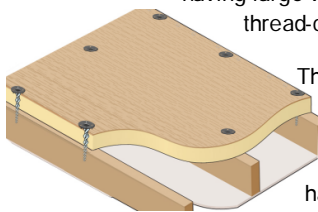


DESCRIPTION

Thor Helical retaining anchors sandwich insulation securely between a retaining layer of render lath, or decking, and the main structure of the building.



The helical fixing has a metal washer-like retaining head fixed on a spiral steel shaft having large work hardened thread-cutting blades.



The angle of the helix causes the anchor to rotate when hammered as it corkscrews through

the insulation and onwards to cut an accurate helical penetrative seating path into the base substrate.

BENEFITS

The self tapping action of the helical fastener allows it to be hammered directly into Aircrete and timber without need to pre-drill. In harder materials such as bricks and concrete a small diameter pilot bore facilitates rapid installation.

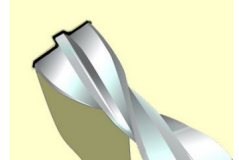
The headed helical anchor delivers a highly versatile mechanical interlock anchorage that exerts no expansive stress or point loadings, does not rely on friction or adhesion and is not affected by temperature extremes or fire.

Loads are spread evenly along the full penetrative length of the helix to ensure reliability of connection

- Hammer driven self tapping anchors.
- Minimum disturbance to insulation
- No expansion or point loads
- Reliable interlock anchorage.
- European Patent No.1307303

DISTINCTION

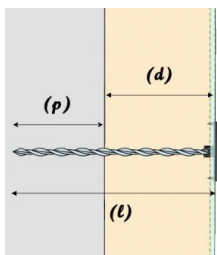
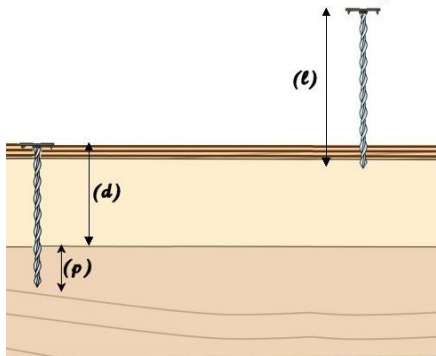
The cross sectional area of the spiral shaft is a quarter of that encompassed by a cylindrical shaft of equivalent diameter. Such intelligent profile design enables the FR Nail to windingly connect the insulation retaining layers to the fabric of the building with much reduced disturbance to the insulating material and with minimal thermal bridging.



Each Thor Helical anchor is engineered using precision die-twisting technology (Patent Numbers: EP.1307303 & US.7269987) to ensure a consistent interlock anchorage into the structure.

Thor Helical fasteners boast a high level of performance in a wide assortment of construction materials. Whether used as external wall insulation anchors for brick or concrete or as insulated flat roof nails these Thor Helical fasteners are most versatile retaining anchors available.

METHOD STATEMENT



THOR HELICAL ANCHOR SELECTION

(d) = INSULATION + BOARD/MESH	(ℓ) = LENGTH OF RETAINING ANCHOR BRICK/AAC	CONCRETE/TIMBER
<=100mm	165mm	135mm
100-130mm	195mm	165mm
130-160mm	225mm	195mm

1. Select Thor Helical Insulation Anchor of appropriate length from table above.
2. Nail through insulation and into backup material, clamping retaining lath or board layer in place. Use additional load spreading washer if required

NB If backup material is brick, stone or concrete drill a 6mm pilot hole to a length that is 5-10mm longer than the fastener.

PRODUCT SPECIFICATION

Product:	Thor Helical FR Nail
Material:	Plated Carbon Steel
Nominal Head Diameter:	= 20mm
Nominal Shank Diameter:	= 8mm
Nominal Shank CSA:	= 13mm ²
Pitch Deviation on Nail:	< 0.5%

INDICATIVE TENSILE LOAD RESISTANCE

MATERIAL	PILOT	PENET RAT ^ℓ	LOAD
CONCRETE 20-25N/mm ²	5.5mm ∅	(p) =>35mm	1.4kN
BRICK =>10N/mm ²	5.5mm ∅	(p) =>65mm	1.5kN
AIRCREE =>2.8N/mm ²	None	(p) =>65mm	0.8kN
SOFTWOOD C27	None	(p) =>35mm	1.4kN

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