



HandiBrac screw bolt embedment

GIB® bracing elements requiring special hold-down fixings at panel ends are identified with an 'H', i.e. GSP-H, BL1-H, BLG-H and BLP-H. When load is applied to the top of high-performance elements, the end studs need to be anchored to stop the panel from 'tipping'.

'H' type bracing systems are often placed near a slab edge and for panel hold-down fixings we recommend the GIB Handibrac® which can be purchased with a 140 mm long BOWMAC blue head screw bolt. Expanding concrete anchors are often not suitable near a slab edge, and a further advantage of the screw bolt is that it can be used on a timber framed platform.

A marginal situation arises when NZS 3604:2011 slab-on-ground construction is used and 'H' type elements are specified on internal walls of single storey buildings, or on non-loadbearing internal ground floor walls of two storey buildings. In these cases, NZS 3604 only calls for a 100 mm slab thickness, and the 140 mm screw bolt embeds 90 mm into the concrete. Whilst our GIB® Technical Helpline has not had any calls from builders having drilled right through, there is a potential risk of the pre-drilled hole penetrating the slab and dampproof membrane.

Single storey NZS 3604 buildings tend to have low to moderate bracing demand. We suggest that 'H' type bracing elements are specified on external walls and

GS1-N, GS2-N and GS2-NOM elements internally as these are easier to install, permit the bracing to be distributed over a larger area, and don't require GIB Handibracs®. If higher rated 'H' type elements are required on some internal walls, then localised slab thickening should be considered and factored into the design.

For the lower of two-storey NZS 3604 buildings, 'H' type elements can be specified on external and loadbearing internal walls with the remainder as outlined for single storey structures.

A final word of warning. Insulated pod-type proprietary concrete slabs often have varying topping thickness and the specification and layout of bracing elements must be carefully considered.

For further information refer to the GIB® Site Guide or call the GIB® Helpline 0800 100 442.