ANCHORS & FIXINGS

Quick Reference Guide

	Concrete ≥ 25 N/mm²	Concrete *(Hollow)* ≥ 15 N/mm²	Fletton Brick ≥ 30N/mm²	Solid Cheshire Clay Brick ≥ 45N/mm²	Class 'B' Engineering Brick (3 x hole) ≥ 75 N/mm²	Dense Solid Concrete Block 7.3 N/mm²	Stone Various Strengths	Plasterboard All thickness's/strengths	Wood Panel i.e. chip/block board
	Concrete		**Masonry**					**Panel**	
Metal Cavity Anchors								✓	✓
Spring Toggles		✓						✓	✓
Speed Plugs								✓	
Hammer-In Fixings								✓	
Zip-Fix		✓						✓	✓
Plastic Plugs	✓		✓	✓	✓	✓	✓		
Nylon Universal plugs	✓	✓	✓	✓	✓	✓	✓	✓	✓
Metal Expansion Plug	✓								
Express Nails	✓		✓	✓	✓	✓	✓		
Wirehangers	✓								
Ceiling Anchors	✓								
Insulation Fixings	✓		✓	✓	✓	✓	✓		
Nail in Anchors	✓						✓		
Nylon Hammer Fixings	✓		✓	✓	✓	✓	✓		
Nylon Frame Fixings	✓		✓	✓	✓	✓	✓		
Nylon Frame Anchors	✓		✓	✓	✓	✓	✓		
Multi-Fix Bolts	✓		✓	✓	✓		✓		
Multi-Fix Concrete Screws	✓		✓	✓	✓		✓		
Multi-Fix Masonry Screws	✓		✓	✓	✓		✓		
Multi-Fix Stella Fixing	✓	✓	✓	✓	✓	✓	✓	✓	✓
Throughbolts	✓								
Drop-In Anchors	✓								
Shield Anchors	✓		✓	✓	✓		✓		
Chemical Studs *	✓	✓	✓	✓	✓	✓	✓		
Vinylester Styrene -Free	✓		✓	✓	✓	✓	✓		
Polyester Styrene-Free	✓		✓	✓	✓	✓	✓		
Polyester	✓		✓	✓	✓	✓	✓		

Recommended Tensile Loads

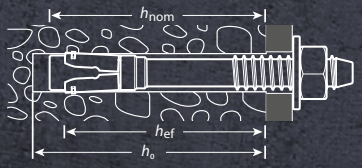
Recommended loads quoted by TIMco are the maximum loads that may be applied in the base material as quoted. Applied loads (unfactored loads) may not exceed these values. (in BS 8539:2012 code of practice for the selection and installation of post-installed anchors in concrete and masonry, recommended loads are referred to as recommended resistances and applied loads as characteristic actions.)

TIMco determines recommended loads from results achieved in their testing facility. Recommended loads are determined from the Characteristic Load (x - ks) divided by a safety factor.

Recommended loads depend on anchors being correctly installed, as per the provided installation instructions, in material of at least the quoted strength and to at least the quoted embedment depth. Recommended loads for masonry are guide values only.

Embedment depths & hole depths

Where embedment depths are quoted in this brochure they refer to the "Nominal embedment depth" of the anchor in the hole, referred to in BS 8539:2012, with the notation.



The minimum hole depth is measured to the shoulder of the drill bit, h_o as per BS 8539, and is valid for the maximum fixture thickness. When using throughbolts, Multi-Fix bolts, shield anchors, nylon frame and nylon hammer fixings, the hole depth should be increased pro rata for thinner fixtures.

Edge distance & centre spacings

In this brochure the dimensions shown under these headings are the distances for which the full recommended load as quoted here may be used (BS 8539 references are: Edge distance, c_{cr}, and Centre spacing, s_{cr}).

For some products closer edge and centre spacings may be used with reduced loads, refer to our Technical Department for details.