

FASTENER SELECTION & INSTALLATION TIPS

The performance of any anchor primarily depends upon the integrity and strength of the substrate material into which it is fixed, in general the stronger the substrate the greater the failure load.

Anchors generally fall into three categories:

- Light weight - which includes cavity fixings, wall plugs, masonry nails, hammer and frame fixings.
- Medium duty - wedge, sleeve, shield anchor: (M6 to M12) and chemical anchors.
- Heavy duty - throughbolts and shield anchor: (M16 to M24).

In general terms, when using anchors, spacing between each fixing point should be 10 x the diameter of the anchor. e.g. M6 anchor=60mm between fixing points.

Most anchors work by expansion. This creates stress within the substrate and can be problematic if fixed too close to the edge of the substrate or into substrates which are old or badly weathered. In cases like this it is recommended that you use expansion free anchors such as chemical polyester resins.

Always drill the correct diameter holes to the correct depth using a drill bit which is in good condition. Clean the hole thoroughly. This is important for all anchors, but particularly critical for chemical anchors.

MATERIAL		CONCRETE (UNCRAKED)	BRICK (SOLID)	BRICK (PERFORATED)	LIGHTWEIGHT CONCRETE	AERATED BLOCK	SANDSTONE	GRANITE	HOLLOW BLOCKS	HOLLOW CLAY POT	PLASTERBOARD	PLYWOOD	HOLLOW DOORS
HEAVY-DUTY	SHIELD ANCHOR (M12-M24)	✓			•		•	✓					
	THROUGHBOLT	✓			•		•	•					
MEDIUM-DUTY	CHEMICAL STUDBOLT	✓	✓		✓		✓	✓					
	CHEMICAL CARTRIDGE	✓	✓	✓	✓	✓	✓	✓	•				
	SLEEVE ANCHOR	✓	✓	✓	✓	✓	✓	✓	•				
	WEDGE ANCHOR	✓			•			•					
	SHIELD ANCHOR (M6-M12)	✓	✓	•	✓		✓	✓					
	NYLON FRAME FIXINGS	✓	✓		✓	•	✓	✓					
LIGHT-DUTY	HAMMER SCREW FIXINGS	✓	✓		✓	•	✓	✓					
	MASONRY NAILS		✓	•	•		•						
	METAL/NYLON SELF DRILL										✓		
	SCREW ANCHOR								•	✓	✓	✓	✓
	SPRING TOGGLE								•	✓	✓	✓	

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