

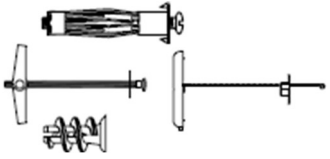

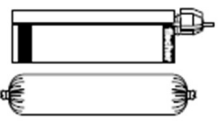



Minimum Standard and Guidance for Fixings

This document is intended to set out the minimum standard or parameters to provide secure fixing of handrails, grabrails, shower seats and other safety or mobility related equipment into various types of base material.

Fixing method	Minimum
Frame fixings 	Nylon frame fixing – 80mm & Plug 7.8mm minimum
Screw and wall plugs 	Screws No.10 (5mm) x 75mm minimum Plugs- 8mm x 50mm long
Plasterboard fixings 	Use heavy duty fixings to install a timber back board to the plasterboard / stud wall – minimum 18mm thick. Secure the bracket or fixing mount to the timber. Use minimum No.10 x 50mm screws DO Not fix direct to plasterboard using plasterboard fixings as this will not provide sufficient strength for handrails etc.
Screws direct into timber 	Timber must be minimum of 18mm ply backing / Patrice or 50mm thick stud / batten / timber. Secure using minimum No.10 (5mm) x 50mm screws.
Chemical fixings 	Depending upon the base material it maybe necessary to use chemical anchors or chemical compounds to strengthen the base material for anchoring the fixing. Consult your supervisor or manager before using.
Through fixings / Anchor bolts 	It may be necessary to bolt through the base material or use anchor bolts if it isn't structurally sound. Use 5.5mm Ø or 6mm bolts with nut and washer suitable to prevent pull through and ensure the finished fixings do not create a sharp hazard. If in doubt consult your supervisor or manager.

Force resistance guidance

Handrails - Must withstand a minimum horizontal force of 0.36 kN/m

In practical terms it needs to be able to withstand load of **36kg per meter of its length**

Grabrails - Must withstand a force of 1100 newtons applied in any position or direction.

In practical terms it needs to be able to withstand **100 kg of force in any direction**

Once installed apply adequate pressure (push / pull) to check the fixings remain secure