



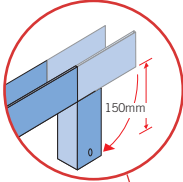
The Lafarge GTEC Metal Stud System is an economical system for compact, non-loadbearing lightweight fire and sound resisting partitions of heights up to 12.0m.

Partitions: GTEC Metal Stud

Junction with masonry wall

Door header detail

Snipped and folded to form header



GTEC U Track

GTEC C Stud

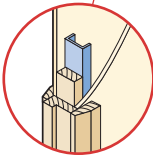
Rubber grommets

Note: electrical wires should be protected where passing through framework



Door lining detail

Timber subframe shown here face fixed, alternative is to infill timber into the metal stud.



Electrical boxes

Drylining electrical boxes are available which allow easy installation without the need for timber noggings.

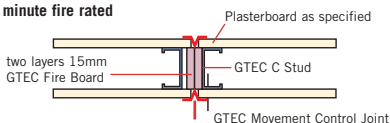


Insulation

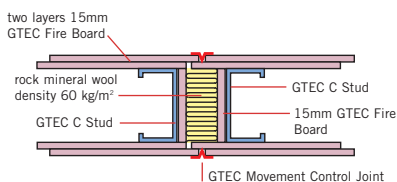
If insulation is specified, use GTEC Insulation Hold strips, screw-fixed or crimped to the studs 150mm from the partition head and at 1200mm vertical centres down the partition.

Movement control joints

30 minute fire rated



60 minute fire rated



Movement control joints may be required to relieve normal structural movement without loading the partition. Movement control joints are required in partitions at intervals **not exceeding 10m**, where the partition crosses or abuts a structural movement joint, and where partitions of dissimilar materials meet in the same plane.

At movement joints, leave a 12.5mm gap in the GTEC U Tracks at head and base. Fix a GTEC C Stud on one side, 10mm from the gap, and line the web with two layers of 15mm GTEC Fire Board. Place another stud, web facing web on the opposite side of the gap, as shown. Board the partition, leaving a continuous 12.5mm gap between boards along the line of the movement joint.

Cut GTEC Movement Control Joint to length; butt joint lengths end to end where necessary. Attach to the plasterboard surface with 13mm stainless steel staples at 150mm centres. Apply GTEC Joint Filler or GTEC Allset Xtra in two coats, feathering out the edges of the second coat. After finishing, remove the masking strip from the centre of the joint.

Table 1: Components for Metal Stud Partitions

| Component | Width (mm) | Length (mm) | Lafarge code |
|-------------------------|------------|------------------------------|--------------|
| GTEC C Stud | 50 | 2400, 2700, 3000, 3600 | CS50/RX |
| Red gauge 0.52mm | 60 | 2400, 2700, 3000, 3600, 4200 | CS60/RX |
| | 70 | 2400, 2700, 3000, 3300 | CS70/RX |
| | | 3600, 4200, 4800 | |
| | 90 | 2700, 3000, 3600, 4000, 4200 | CS90/RX |
| | 146 | 2400, 2700, 3000 | CS146/RX |
| | | 3600, 4200, 4800 | |
| GTEC C Stud | 70 | 3600, 4200 | CS70/B |
| Blue gauge 0.7mm | 90 | 3600, 4200 | CS90/B |
| | 146 | 3600, 4200, 4800, 5400, 6000 | CS146/B |
| GTEC C Stud | 90 | 4800, 6000, 7200 | CS90/W |
| White gauge 0.9mm | | | |
| GTEC C Stud | 70 | 4800 | CS70/Y |
| Yellow gauge 1.2mm | 90 | 3600, 4800, 6000 | CS90/Y |
| | 146 | 6000 | CS146/Y |
| GTEC U Track | 52 | 3000 | UT52/RX |
| Red gauge 0.52mm | 62 | 3000 | UT62/RX |
| | 72 | 3000 | UT72/RX |
| | 92 | 3000 | UT92/RX |
| | 148 | 3000 | UT148/RX |
| GTEC U Track Deep | 52 | 3000 | UDT52/B |
| Flange Blue gauge 0.7mm | 62 | 3000 | UDT62/B |
| | 72 | 3000 | UDT72/B |
| | 92 | 3000 | UDT92/B |
| | 148 | 3000 | UDT148/B |
| GTEC U Track Extra | 72* | 3000 | UXT72/B |
| Deep Flange | 92** | 3000 | UXT92/W |
| *Blue gauge 0.7mm | 148** | 3000 | UXT148/W |
| **White gauge 0.9mm | | | |
| GTEC Fixing Channel | 99 | 2400 | MFX |
| White gauge 0.9mm | | | |
| GTEC Metal Angle | 23 x 30 | 3600 | MFC2330 |
| | 25 x 25 | 3600 | MFC2525 |
| | 25 x 50 | 3600 | MFC2550 |
| GTEC Splayed Corner | 50 x 50 | 3600 | MFC135 |
| Support Angle | | | |
| GTEC Flat Strap | 50 | 2400 | FS50/RX |
| | 90 | 2400 | FS90/W |

Electrical services

The installation of electrical services should be carried out in accordance with the recommendations of the Institution of Electrical Engineers. The knock-outs in the studs can be used for routing electrical and other small services. Cables should be protected by conduit or other suitable precautions taken to prevent abrasion when they pass through the metal frame.

1



From a fixed point mark out the line of partition. Fix **GTEC U Track** to timber or concrete floor along the setting out line of the partition at 600mm centres using suitable fixings.

If applying the **GTEC U Tracks** direct to new concrete which has not completely dried out, a damp proofing membrane should be used.

Note: A timber sole plate maybe required on uneven floors or when installed prior to screed being laid.

2



Cut the **GTEC U Track** (and **GTEC C Stud**) to length as necessary using tin snips.

GTEC C Stud to be cut 5mm shorter than floor to ceiling height.

3



Install a **GTEC C Stud**, using a spirit level to plumb on end wall; screw fix at 600mm centres using suitable fixings.

Note: Fix opposite end wall **GTEC C Stud** only after ceiling **GTEC U Track** has been installed.



4



Place the ceiling **GTEC U Track** onto end wall **GTEC C Stud**. Using a **GTEC C Stud** and spirit level, plumb opposite end of the ceiling **GTEC U Track** with the floor **GTEC U Track** and screw-fix into position at 600mm centres.

Fix the remaining end wall **GTEC C Stud**.

5



Mark the floor and ceiling at centres as specified below for the location of intermediate **GTEC C Studs**:

At max. 400mm centres for 9.5mm plasterboard or 600mm centres for 12.5 mm plasterboard. Arrange the framing so that plasterboard widths of less than 300mm are avoided.

See step 9 for installation of intermediate studs.

6



Use extra **GTEC C Studs** at openings, corners, T junctions and stop ends in the details. These extra studs must be fixed to head and floor **GTEC U Tracks** with **GTEC Wafer Head Self Tapping** screws or crimping tool.

Note: The door frame background metal construction details shown above, form one of three possible alternatives.

7



Form the door header by using a piece of **GTEC U Track**. The length should be equal to the width of the door frame plus a minimum of 300mm in order to allow 150mm at each end to be cut and folded down.

8



Secure header onto **GTEC C Studs** using a crimping tool or **GTEC Wafer Head Self Tapping** screws.

This detail applies to all door frame assembly alternatives. See step 5.

9



Install all intermediate **GTEC C Studs**.

Cut the **GTEC C Studs** 5mm shorter than the floor to ceiling height to allow for floor variations. Insert the **GTEC C Studs** into the **GTEC U Tracks** and twist to lock.

The intermediate **GTEC C Studs** should all face the same way. They should not be fixed to **GTEC U Tracks** in order to allow for adjustment when fixing plasterboards.

10



Form as required, one of the following alternative timber background constructions for fixing door frames:

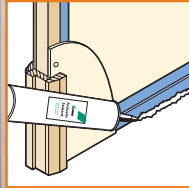
(a) Fix a 38mm x 38mm timber insert into back of door frame **GTEC C Studs** and header. Secure using **GTEC High Thread** screws through face of the **GTEC C Stud** into the timber.

(b) Fix a timber subframe to the face of the door frame **GTEC C Studs** and header using **GTEC Self Tapping** screws.

11

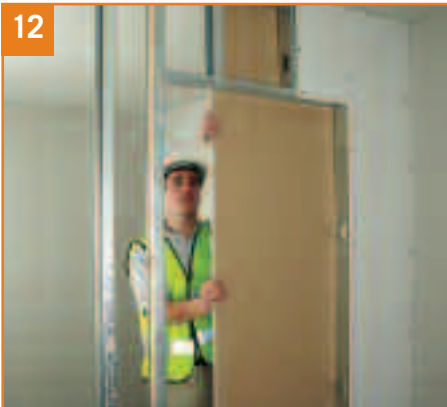


Install door frame into position and secure by screwing through the door frame into one of the alternative background constructions above using **GTEC Self Tapping** screws. Ensure that the screws penetrate each of the components forming the background constructions.



To retain sound integrity, apply a 6mm continuous bead of **GTEC Intumescent Acoustic Sealant** around perimeter of the metal framing, before applying the wall boarding.

12



Install plasterboard to one side of the partition. Cut the plasterboard 5mm to 8mm shorter than the floor-to-ceiling height, butt firmly against the ceiling and fix with **GTEC Self-Tapping** screws at 300mm centres.

Note: Use **GTEC Self Drilling** screws for **GTEC Universal Board** partitions.

Lafarge GTEC Metal Stud Partitioning System

Lafarge Metal Stud Partitioning System is an economical friction-fit system to assemble frames for strong, compact, lightweight non-loadbearing partitions.

Applications

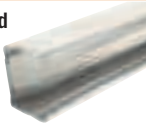

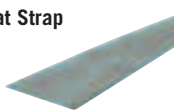
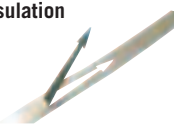
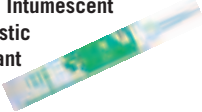
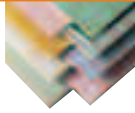
- Partitioning for domestic and commercial use.
- For heights up to 12m.
- Wide range of partition thickness.

Benefits

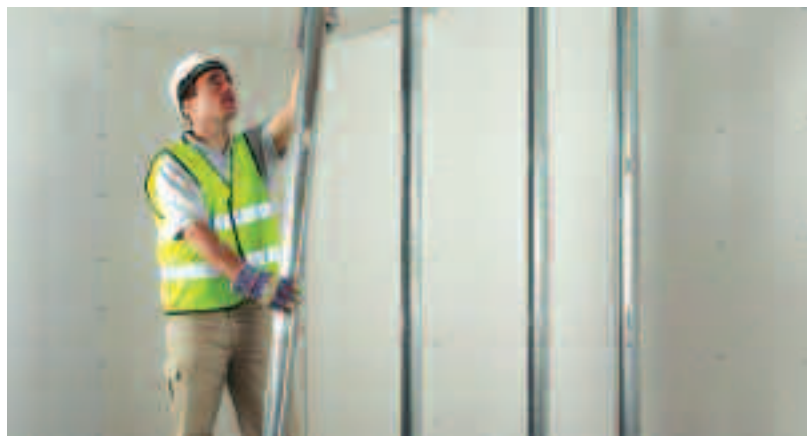
- Quick to erect, lightweight and clean.
- Metal Stud is dimensionally accurate and will not twist or bow.
- Range of track and stud widths - 50mm, 60mm, 70mm, 90mm and 146mm to meet different performance requirements.
- Services are easy to install.
- Mineral wool can easily be installed to uprate sound insulation.

Good Site Practice

- GTEC U Tracks and GTEC C Studs are cold rolled galvanised steel and may be stored outside under cover for short periods without deterioration.
- Electrical cables which pass through floor or ceiling tracks should be protected by grommets.
- An electrical or battery operated drywall screw gun is recommended for speed and accurate installation.
- Ensure service fold downs are aligned when installing studs.
- Gloves are recommended when handling metal sections to avoid the risk of cuts.

| Components | Lafarge code | Dimensions |
|---|---|--|
| GTEC C Stud  | | See Table 1 |
| GTEC U Track  | | See Table 1 |
| GTEC Fixing Channel  | | See Table 1 |
| GTEC Flat Strap  | FS50/RX FS90/W | 2400mm length x 50mm or 90mm wide |
| GTEC Insulation Hold  | INSR | 30m roll |
| GTEC Self Tapping screws*  | various** | ranging from 22 to 86mm |
| GTEC Wafer Head Self Tapping screws*  | 14WHST500 | 14mm |
| GTEC Intumescent Acoustic Sealant  | ACOUSTIC (INTU) AC038 (INTU) AC060 (INTU) | 0.9 litre 0.38 litre 0.6 litre (new foil refill) |
| GTEC Board  | See GTEC Product Selector Installation Guide for details. | various |

*See GTEC Fixings Selector Installation Guide for details.

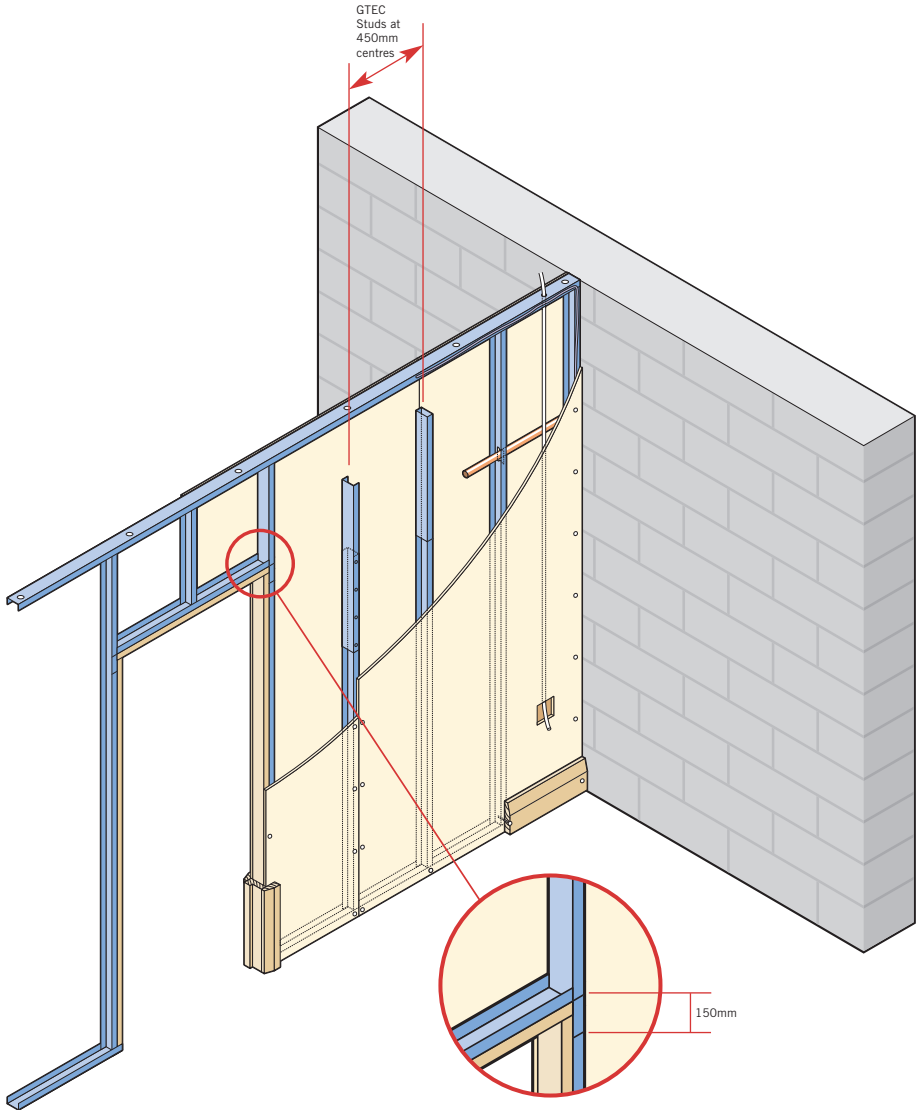


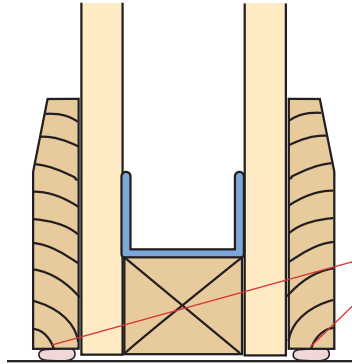
The Lafarge GTEC Acoustic Homespan System is a lightweight, non-loadbearing metal stud partition system primarily intended for domestic applications.

Partitions: GTEC Acoustic Homespan

PARTITIONS: GTEC Acoustic Homespan

The Lafarge GTEC Acoustic Homespan System is constructed with GTEC Acoustic Homespan C Studs. GTEC Acoustic Homespan Starter Studs are used at all corners, T junctions, stop ends and door openings.

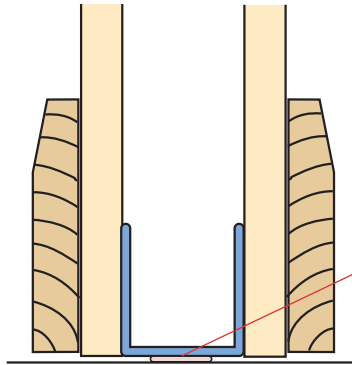




Skirting Detail A

GTEC U Track onto timber sole plate.

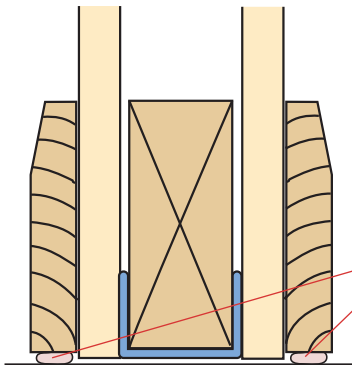
Apply GTEC Intumescent Acoustic Sealer



Skirting Detail B

GTEC Deep Flange U Track (Skirting is screw fixed to GTEC U Track, no blocks necessary).

Apply GTEC Intumescent Acoustic Sealer



Skirting Detail C

GTEC U Track including skirting block.

Apply GTEC Intumescent Acoustic Sealer

All three skirting details can be used on Lafarge GTEC Acoustic Homespan Systems.

1



Mark out the line of the partition. Fix **GTEC U Track** (UT45/RX or UT52/RX) to timber or concrete floor along the setting out line at 600mm centres, using suitable fixings.

When installing the **GTEC U Tracks** directly onto new concrete which has not completely dried out, a damp proofing membrane should be used. On uneven floors a timber sole plate may be required.

2



Cut the **GTEC U Track** (and **GTEC Acoustic Homespan Studs**) to length as necessary using tin snips. Studs should be cut 5mm shorter than the floor to ceiling height.

3



Using a spirit level to ensure it is plumb, fix a **GTEC Starter Stud** to the end wall, with suitable fixings at 600mm centres.

4



Place the ceiling **GTEC U Track** on top of the end wall Stud. Then, using a **GTEC Acoustic Homespan Stud** and spirit level, ensure the opposite end of the ceiling **GTEC U Track** is plumb with the floor **GTEC U Track** and screw-fix it into position at 600mm centres.

5



Install all intermediate **GTEC Acoustic Homespan Studs**.

Cut the **GTEC Studs** 5mm shorter than the floor to ceiling height to allow for floor variations. Insert the **GTEC Studs** into the **GTEC U Tracks** at 450mm centres and twist to lock. The intermediate Studs should all face the same way. To allow adjustment when fixing plasterboards, Studs should not be screw fixed to the **GTEC U Tracks**.

6



Use **GTEC Starter Studs** CS44/RX at door openings, corners, T junctions and stop ends as shown in details. These extra studs must be fixed to ceiling and floor **GTEC U Tracks** with **GTEC Wafer Head Self Tapping** screws or using a crimping tool.

7



Form the door header by using a piece of **GTEC U Track**. Cut the track so that it is equal to the width of the door frame plus a minimum 300mm, in order to allow 150mm at each end to be cut and folded down.

8



Secure the header to the **GTEC Starter Studs** using a crimping tool or **GTEC Wafer Head Self Tapping** screws.

9



Form a timber background construction to create a secure fixing for the door frame by placing a suitably sized timber insert into the back of door frame Studs and header Track. Secure these timbers using **GTEC High Thread** screws through the face of the Studs into the timber.

Alternatively fix a timber sub frame to the face of the doorframe (**GTEC C Studs**) and header using **GTEC Self Tapping** screws.

10



Fix the **GTEC Acoustic Homespan** board to one side of the partition. Cut the board 5mm to 8mm shorter than the floor to ceiling height, butt firmly against the ceiling and fix with 25mm **GTEC Self-Tapping** screws at 300mm centres.

11



When one side is complete, repeat for the other side of the partition, ensuring that the joints are staggered by 450mm.

12



To maximise the acoustic performance use **GTEC Intumescent Acoustic Sealant** and seal the floor track. Please refer to diagram for details.

Lafarge GTEC Acoustic Homespan System

Acoustic Homespan is a lightweight, non-loadbearing metal stud partition system primarily intended for domestic applications. The system is designed to take one layer of 15mm x 900 mm wide Acoustic Homespan Board fixed to each side. It combines purpose-designed sound absorbing boards with technically advanced metal GTEC C Studs to provide at least 40 R_w dB sound performance without the requirement for insulation.

The boards and studs used have the added benefit of creating a stronger partition than conventional GTEC C Stud partitions and meet heavy duty strength grading classifications when tested in accordance with BS 5234 Part 2 1990. The system also provides 30 minutes fire resistance when tested to BS EN 1364 Part 1 1990.

Whilst readily meeting the requirements of Building Regulation Part E, Acoustic Homespan can also be used to match still more demanding specifications. The introduction of a 25mm 19 kg/m³ mineral wool insulation increases performance to 43 R_w dB.

Applications

- Primarily intended for domestic applications
- Lightweight, non-loadbearing

Benefits

- Achieves 40 R_w dB sound rating without insulation
- Cost-effective compared with timber stud
- Eliminates nail popping and cracking

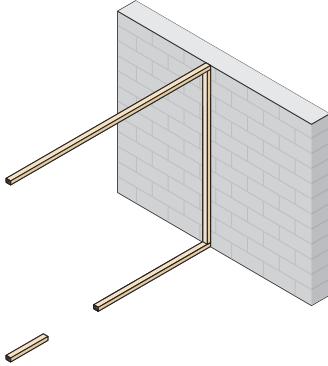
| Components | Lafarge code | Dimensions |
|--|-----------------|-----------------------------|
| GTEC Acoustic Homespan C Stud  | AHS44/RX | 44mm wide |
| | AHS50/RX | 50mm wide |
| GTEC Acoustic Homespan Starter Stud  | CS44/RX | 44mm wide |
| GTEC U Track  | UT45/RX | 45mm wide |
| | UT52/RX | 52mm wide |
| GTEC Deep Flange U Track  | UDT52/B | 52mm wide |
| GTEC Self Tapping screws*  | 25DST1000 | 25mm |
| GTEC Intumescent Acoustic Sealant  | Acoustic (INTU) | 0.9 litre |
| | ACO 38 (INTU) | 0.38 litre |
| | ACO60 (INTU) | 0.6 litre (new foil refill) |
| GTEC Acoustic Homespan Board  | F1800H | 15 x 900 x 1800 |
| | F2400H | 15 x 900 x 2400 |
| | F2700H | 15 x 900 x 2700 |
| GTEC Acoustic Homespan MR Board  | F2400HM | 15 x 900 x 2400 |

*See Fixings Selector Installation Guide for details.

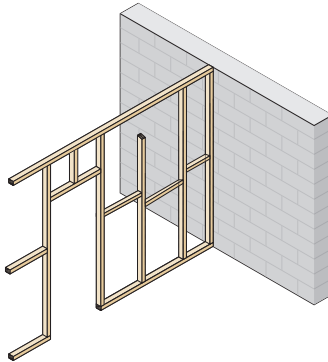


For fixing GTEC plasterboard to timber stud partitions frequently used in timber-frame houses, small restoration projects and home extensions.

Partitions: GTEC Drywall Timber Stud

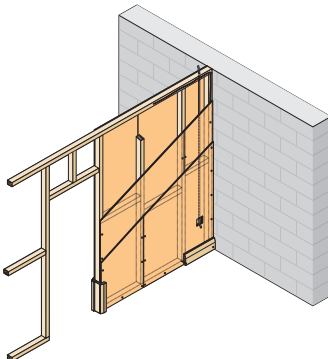


1. Install timber sole plate and framing members to end walls and ceiling. Ensure all framing is straight, plumb and true, and will provide a firm support for the plasterboards.



2. Fix intermediate vertical studs to the timber floor and ceiling plates at maximum 400mm centres for 9.5mm plasterboard, and at 600mm centres for 12.5mm and 15mm plasterboard. Framing should be arranged so as to avoid plasterboard widths of less than 300mm. Plasterboard edges must be supported at all openings, junctions and corners. All framing should provide a minimum bearing width for the plasterboard of not less than 38mm.

Note: For all 900mm wide plasterboards, stud centres should be at 450mm.

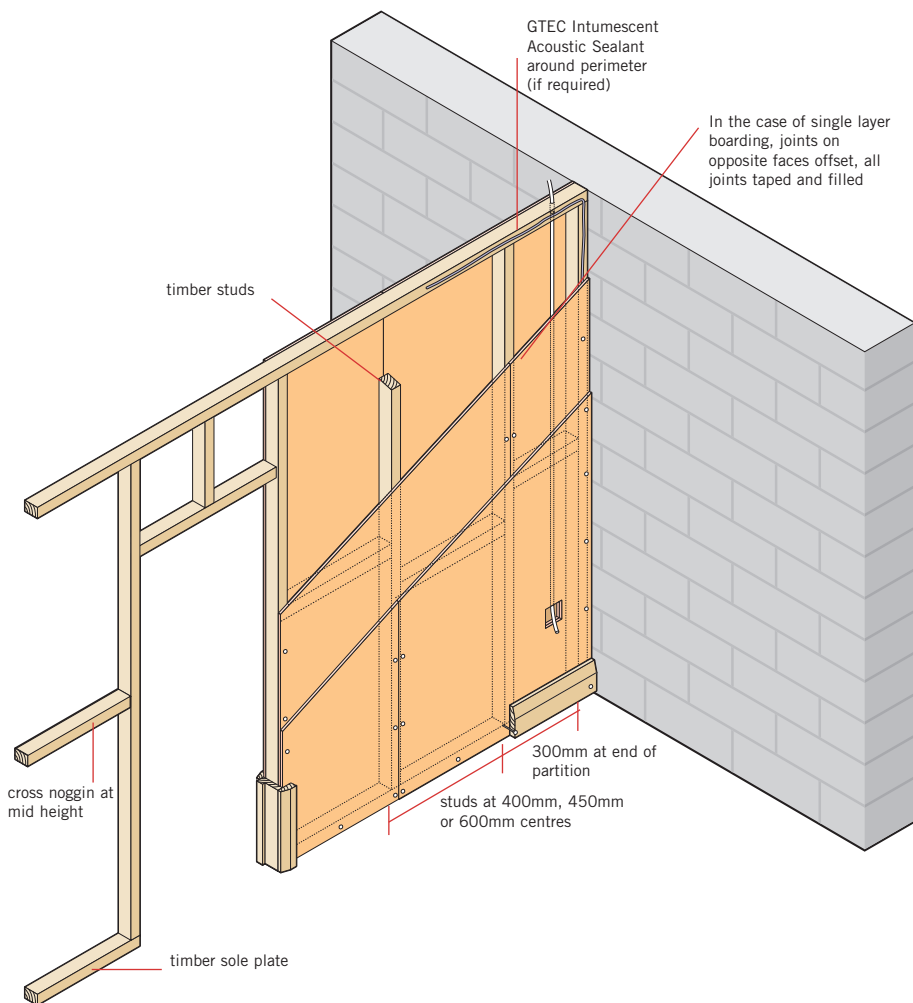


3. Cut plasterboard 5mm to 8mm shorter than the floor-to-ceiling height, butt firmly against the ceiling and fix with GTEC Drywall Nails at 150mm centres or GTEC High Thread screws at 300mm centres. Butt plasterboards lightly against each other, centring joints over the studs. With double layer boarding, the vertical joints should be staggered between layers.

Sound insulation and High Performance Partitions

If you require sound insulation or high performance party walls, greater performance can be achieved using Lafarge's range of performance plasterboard systems.

Please contact the Technical Enquiryline on: 01275 377789 for advice



GTEC Drywall Timber Stud Partition

Timber Stud partitions are typically for domestic use either loadbearing or non-loadbearing.


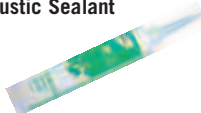
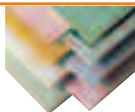
The selection of stud size, and the type, number and thickness of board layers will depend upon the partition height and the performance required for fire resistance and sound insulation. For details, refer to the Lafarge Drywall Manual.

Applications

- Typically for domestic use.
- Can provide fire resistance and sound insulation where required.

Benefits

- When taped and jointed it provides a smooth finish for direct decoration.
- Forms a ready base for gypsum plaster or textured finishes.

| Components | Lafarge code | Dimensions |
|---|--|--------------------------------|
| GTEC High Thread screws  | 32DHT1000 | 32-96mm |
| | 38DHT1000 | |
| | 41DHT1000 | |
| | 51DHT500 | |
| | 63DHT500 | |
| | 76DHT250 | |
| | 86DHT200 | |
| 96DHT200 | | |
| GTEC Nails  | NAIL30ZINC | 30mm |
| | NAIL40ZINC | 40mm |
| GTEC Intumescent Acoustic Sealant  | ACOUSTIC (INTU) | 0.9 litre |
| | AC038 (INTU) | 0.38 litre |
| | AC060 (INTU) | 0.6 litre (new foil refill) |
| GTEC Board  | See GTEC Product Selector Installation Guide for details | various |

Recommended screw lengths

| Construction | Plasterboard thickness (mm) | Screw length (mm) |
|--------------------------------|-----------------------------|-------------------|
| Timber framing Single layer | 6 | 32 |
| | 12.5 | 38 |
| | 15.0 | 38 |
| Timber framing Double layer | 19.0 | 41 |
| | 6 + 6 | 38 |
| | 12.5 + 12.5 | 51 |
| | 12.5 + 19.0 | 63 |
| | 15.0 + 15.0 | 63 |

Recommended nail lengths

| Construction | Plasterboard thickness (mm) | Nail length (mm) |
|--------------------------------|-----------------------------|------------------|
| Timber framing Single layer | 12.5 | 40 |
| | 15.0 | 40 |
| | 19.0 | 50 |
| Timber framing Double layer | 12.5 + 12.5 | 50 |
| | 12.5 + 19.0 | 65 |
| | 15.0 + 15.0 | 65 |