

# LININGS



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### Drylining to solid backgrounds

Lafarge Plasterboard lining systems are quick, economical to install and dramatically reduce the amount of water used in wall construction. Systems incorporating **Lafarge Thermalcheck** boards have a much better thermal response than conventional wet constructions, so they are less prone to surface condensation.

Linings to external walls provide thermal insulation, control of water vapour and condensation risk in new build or renovation work.

They correct minor surface irregularities and provide a smooth level wall surface suitable for direct decoration.

Lafarge Plasterboard lining systems are not suitable for the isolation of dampness or for continuous exposure to moisture.

### Lafarge Direct Bond

Direct bonding is used with **Lafarge Echeck**, **Lafarge Standard** or **Lafarge dBcheck** wallboard up to 15mm thick, up to 1200mm wide, for masonry backgrounds, using **Lafarge Bonding Compound** or **Lafarge Multi Purpose Adhesive**. Quick to apply, this method can be used to correct minor irregularities in dry substrates.

### Lafarge Thermalcheck Linings

For increased thermal insulation Thermalcheck plasterboard can be direct bonded to masonry backgrounds using **Lafarge Multi Purpose Adhesive (MPA)** and a secondary fix of two nailable plugs. Thermalcheck plasterboards can also be fixed to Cormet metal systems and timber framing.

### System selection

#### Common application areas:

		Direct bond	Cormet Dryliner	Cormet Independent	Timber Frame	Steel Frame	Contour Linings
Residential:	New Housing	■	■	■	■	■	—
	Flats	■	■	■	■	■	—
	Renovation	■	■	■	■	■	■
Commercial:	Offices	■	■	■	■	—	■
	Entertainment	■	■	■	■	—	■
	Institutional	■	■	■	■	—	■
	Shops	■	■	■	■	—	■
Industrial:	Factories	■	■	■	—	■	—
	Warehouses	■	■	■	—	■	—
Specialist:	Cinemas	■	■	■	—	—	—
	Hospitals	■	■	■	—	■	—

### Cormet Metal Furring System

The **Cormet Metal Furring** system is used for mechanical fixing of plasterboards not suitable for direct bonding, ie **Lafarge Vapourcheck** wallboard, **Lafarge Moisturecheck** wallboard and thermal laminates. this system provides a high performance wall lining with better thermal insulation properties and higher water vapour resistance.

**Cormet** metal furring channels are adhesive fixed, using **Lafarge Bonding Compound** or **Lafarge Multi-Purpose Adhesive**, to the background. The plasterboard is mechanically fixed to the furrings. Alternatively, where the substrate will not provide a reliable bond, **Cormet Dryliner** system should be used.

The system is not suitable for solid brick external walls subject to rising or ingressing damp.

### Cormet Dryliner System

**Cormet Dryliner** is a completely dry system for drylining walls. It is fixed directly to the existing wall, allowing a cavity width between the wall and plasterboard lining ranging from 20mm to 130mm.

It is a simple, quick and cost-effective system that provides a simple means of achieving a flat surface irrespective of the condition of the substrate. It offers particular benefits in refurbishment work where walls are out of true.

This system allows air movement within the cavity and so minimises the risk of damp penetration.

### Cormet Independent Wall Lining

The **Cormet Independent Wall Lining** system is especially suited to reinforced concrete walls and steel framed walls. Fixed clear of the external wall, it allows space for services, or for high levels of thermal and acoustic insulation. It may also be used where the external wall has suffered damp ingress, but then treated with appropriate damp proofing systems.

### Timber Framed Walls

Lafarge plasterboards may be used as a lining fixed direct to timber frames, in association with thermal insulation and a vapour control layer.

### Steel Framed Walls

Lafarge plasterboards may be used as a lining fixed direct to steel frames, in association with thermal insulation and a vapour control layer.

### Lafarge Contour Linings

For a fast, cost-effective and space-saving method of lining unsightly walls and ceilings, **Lafarge Contour** wallboard, 6mm thick, can be direct bonded to most flat and stable backgrounds with **Lafarge Drywall Adhesive**.

## LININGS

**Table 2.1**  
**Thermal lining solutions for external walls to meet**  
**Building Regulations Approved Document L: 2002**

System reference	Specification	Maximum height (m)	Nominal thickness (mm)	Fire resistance (minutes) to BS 476, and <b>BS EN 1364</b>	U-value (W/m <sup>2</sup> K)
RFL 17	<p><b>External wall:</b> 100mm brickwork with 75mm cavity</p> <p><b>Internal framing:</b> 38 x 89mm timber studs at 600mm centres with breather membrane on 11mm plywood sheathing tied to brickwork with proprietary channel and tie</p> <p><b>Lining:</b> one layer 12.5mm Lafarge Standard wallboard</p> <p><b>Insulation:</b> one layer 100mm glass mineral wool density 24 kg/m<sup>3</sup> between studs</p>	2.4	301	0* 0*	0.32
RDL 02	<p><b>External wall:</b> 100mm brickwork with 75mm cavity</p> <p><b>Internal wall:</b> 100mm Celcon Solar Blocks</p> <p><b>Lining:</b> 55mm Lafarge Thermalcheck XP wallboard on Direct Bond system with 10mm cavity</p>	5.2	342	0* 0*	0.34
RDS 08	<p><b>Masonry:</b> sand/cement render on solid 215mm concrete blockwork, density 2300 kg/m<sup>3</sup></p> <p><b>Lining:</b> 60mm Lafarge Thermalcheck K wallboard on Cornet Dryliner Channel, forming 75mm cavity</p>	5.2	300	0* 0*	0.33
RDL 01	<p><b>External wall:</b> 100mm brickwork with 25mm cavity and standard wall ties with insulation clips</p> <p><b>Internal wall:</b> 150mm Celcon Solar Blocks and 25mm PR insulation</p> <p><b>Lining:</b> 12.5mm Lafarge Standard wallboard on Direct Bond system with 10mm cavity</p>	5.2	325	0* 0*	0.34
RFL 51	<p><b>External wall:</b> 100mm brickwork with 75mm cavity</p> <p><b>Internal framing:</b> 150mm steel load bearing studs at 600mm centres with breather membrane on 25mm Lafarge Thermalcheck Sheathing wallboard tied to brickwork with proprietary channel and tie</p> <p><b>Lining:</b> inner layer 12.5mm Lafarge Vapourcheck wallboard, outer layer 12.5mm Lafarge Firecheck wallboard</p> <p><b>Insulation:</b> one layer 150mm glass mineral wool density 10.5 kg/m<sup>3</sup> between studs</p>	4.2	350	60* 60*	0.34

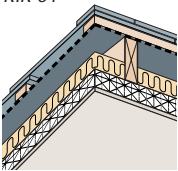
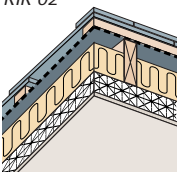
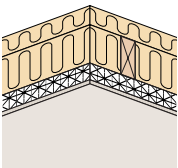
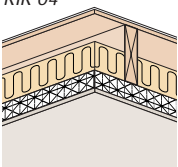
Note:

Fire resistance to drylining cavity \* BS 476: Part 22 \* BS EN 1364-1

Performance values are for imperforate, jointed systems using only Lafarge components and installed to the Lafarge specification given. Any alterations may well impair the quoted performance criteria.

## LININGS

**Table 2.2**  
**Thermal lining solutions for roofs to meet Building Regulations Approved Document L: 2002**

		Weight (kg/m <sup>2</sup> )	U-value (W/m <sup>2</sup> K)
<b>Ceilings under pitched roofs</b>			
System reference	Roof specification		
RIR 01	<b>Rafters:</b> 47 x 100mm at 600mm centres with noggings <b>Insulation:</b> 50mm glass mineral wool quilt density 16kg/m <sup>3</sup> <b>Ceiling:</b> 50mm Lafarge Thermalcheck K insulating wallboard	7.3	0.30
			
RIR 02	<b>Rafters:</b> 47 x 100mm at 600mm centres with noggings <b>Insulation:</b> 75mm glass mineral wool quilt density 10.5kg/m <sup>3</sup> <b>Ceiling:</b> 60mm Lafarge Thermalcheck K insulating wallboard	7.5	0.20
			
<b>Horizontal ceiling at apex of roof</b>			
RIR 03	<b>Trusses:</b> 38 x 100mm at 600mm centres with noggings <b>Insulation:</b> 100mm glass mineral wool quilt between joists, 50mm glass mineral wool quilt over joists density 10.5-16 kg/m <sup>3</sup> <b>Ceiling:</b> 50mm Lafarge Thermalcheck K insulating wallboard	7.5	0.16
			
<b>Ceilings under flat roofs</b>			
RIR 04	<b>Joists:</b> 47 x 150mm at 600mm centres with noggings <b>Insulation:</b> 75mm glass mineral wool quilt density 10.5 kg/m <sup>3</sup> <b>Ceiling:</b> 50mm Lafarge Thermalcheck K insulating wallboard	7.3	0.25
			

## Note:

Performance values are for imperforate, jointed systems using only Lafarge components and installed to the Lafarge specification given. Any alterations may well impair the quoted performance criteria.

## LININGS

**Table 2.3**  
**Cornet Dryliner to upgrade existing external walls**

System reference	Specification	Maximum height (m)	Fire resistance (minutes) to BS 476, and BS EN 1364	U-value (W/m <sup>2</sup> K)
RDS 03	<b>External wall:</b> 100mm brickwork or blockwork <b>Internal wall:</b> 100mm concrete blockwork, density 2300 kg/m <sup>3</sup> <b>Lining:</b> 12.5mm Lafarge Standard wallboard on Cornet Dryliner Channel <b>Insulation:</b> 50mm glass mineral wool, density 24 kg/m <sup>3</sup>	5.2	0* 0*	0.52
RDS 04	<b>Masonry:</b> sand/cement render on solid 215mm concrete blockwork, density 2300 kg/m <sup>3</sup> <b>Lining:</b> 12.5mm Lafarge Vapourcheck wallboard on Cornet Dryliner Channel <b>Insulation:</b> 50mm glass mineral wool, density 24 kg/m <sup>3</sup>	5.2	0* 0*	0.60
RDS 08	<b>Masonry:</b> sand/cement render on solid 215mm concrete blockwork, density 2300 kg/m <sup>3</sup> <b>Lining:</b> 60mm Lafarge Thermalcheck K wallboard on Cornet Dryliner Channel, forming 75mm cavity	5.2	0* 0*	0.33
RDS 09	<b>Masonry:</b> 215mm brickwork <b>Lining:</b> 60mm Lafarge Thermalcheck K wallboard on Cornet Dryliner Channel, forming 75mm cavity	5.2	0* 0*	0.34
RDS 10	<b>Masonry:</b> 215mm brickwork <b>Lining:</b> 12.5mm Lafarge Vapourcheck wallboard on Cornet Dryliner Channel <b>Insulation:</b> 100mm glass mineral wool, density 10.5 kg/m <sup>3</sup>	5.2	0* 0*	0.33

## Notes:

Fire resistance to drylining cavity \* BS 476: Part 22 \* BS EN 1364-1

Performance values are for imperforate, jointed systems using only Lafarge components and installed to the Lafarge specification given. Any alterations may well impair the quoted performance criteria.

When using Cornet Dryliner system in conjunction with mineral wool, ensure a 10mm cavity between inner leaf and back of insulation.

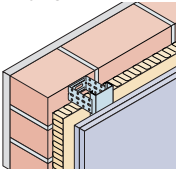
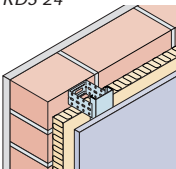
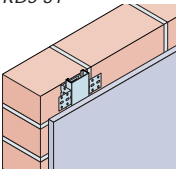
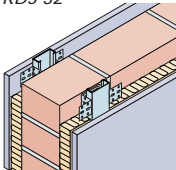
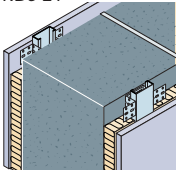
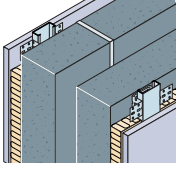
U-values differ according to density of brickwork, blockwork or mineral wool. To confirm details contact our Technical Enquiryline on 01275 377789.

All calculations are in accordance with Building Regulations: Conservation of fuel and power, Approved Document L 2002 edition.

The maximum heights given in these tables refer to the background construction. The Lafarge Dryliner system can be safely used up to a height of 6.5m.

## LININGS

**Table 2.4**  
**Cormet Dryliner to upgrade internal walls**

System reference	Specification	Maximum height (m)	Fire resistance (minutes) to BS 476, and BS EN 1364	Sound insulation ( $R_w$ dB) ( $C_{tr}$ dB if applicable)	Minimum thickness (mm)
RDS 23	 <p><b>Masonry:</b> 102mm brickwork with plaster finish to one side, 50mm cavity  <b>Lining:</b> Cormet Dryliner Standard Reach with two layers 12.5mm Lafarge dBcheck wallboard  <b>Insulation:</b> 25mm glass mineral wool, density 16 kg/m<sup>3</sup></p>	3.0	60*	65	202
RDS 24	 <p><b>Masonry:</b> 102mm brickwork with plaster finish to one side, 50mm cavity  <b>Lining:</b> Cormet Dryliner Standard Reach with one layer 12.5mm Lafarge dBcheck wallboard  <b>Insulation:</b> 25mm glass mineral wool, density 16 kg/m<sup>3</sup></p>	3.0	30*	60	177
RDS 31	 <p><b>Masonry:</b> 102mm brickwork  <b>Lining:</b> Cormet Dryliner Standard Reach with one layer 12.5mm Lafarge dBcheck wallboard</p>	3.0	0*	49	140
RDS 32	 <p><b>Masonry:</b> 102mm brickwork  <b>Lining:</b> Cormet Dryliner Standard Reach with one layer 12.5mm Lafarge dBcheck wallboard on both sides  <b>Insulation:</b> 25mm glass mineral wool, density 16 kg/m<sup>3</sup></p>	6.2	30*	59	177
<b>Separating walls (NON Robust Details)</b>					
RDS 21	 <p><b>Masonry:</b> 215mm solid dense aggregate blockwork, minimum density 2300 kg/m<sup>3</sup>  <b>Lining:</b> Cormet Dryliner Channel with one layer 12.5mm Lafarge dBcheck wallboard on both sides  <b>Insulation:</b> 25mm glass mineral wool, density 16 kg/m<sup>3</sup></p>	6.2	30*	62	290
RDS 22	 <p><b>Masonry:</b> 100mm double leaf blockwork, density 1400 kg/m<sup>3</sup>, 50mm cavity  <b>Lining:</b> Cormet Dryliner Channel with one layer 12.5mm Lafarge dBcheck wallboard on both sides  <b>Insulation:</b> 25mm glass mineral wool, density 16 kg/m<sup>3</sup></p>	6.2	30*	63	325

## Notes:

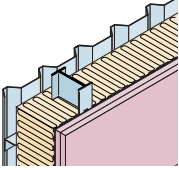
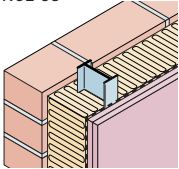
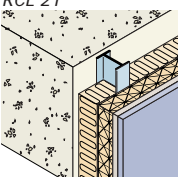
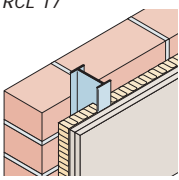
Fire resistance to drylining cavity \* BS 476: Part 22 \* BS EN 1364-1

Performance values are for imperforate, jointed systems using only Lafarge components and installed to the Lafarge specification given. Any alterations may well impair the quoted performance criteria.

When using Dryliner system in conjunction with mineral wool, ensure a 10mm cavity between inner leaf and back of insulation.

## LININGS

**Table 2.5**  
**Cornet Independent Linings (non loadbearing)**

System reference	Specification	Weight (kg/m <sup>2</sup> )	Maximum height (m)	I Stud reference	Fire resistance (minutes) to BS 476, and BS EN 1364	U-value (W/m <sup>2</sup> ·K)
RCL 04	 <p><b>Outer leaf:</b> Profiled metal cladding  <b>Studs:</b> Cornet I Studs at 600mm centres  <b>Lining:</b> inner layer 12.5mm Lafarge Vapourcheck Firecheck wallboard, outer layer of 12.5mm Lafarge Firecheck wallboard or Lafarge Megadeco wallboard  <b>Insulation:</b> 100mm glass mineral wool density 10.5 kg/m<sup>3</sup></p>	26	IS50/R IS60/B IS70/B IS90/B	2.7 3.9 4.5 5.4	60* 60*	0.47
RCL 05	 <p><b>Outer leaf:</b> 100mm brickwork or blockwork  <math>\lambda = 0.84</math> W/mK  <b>Studs:</b> Cornet I Studs at 600mm centres  <b>Lining:</b> inner layer 12.5mm Lafarge Vapourcheck Firecheck wallboard, outer layer of 12.5mm Lafarge Firecheck wallboard or Lafarge Megadeco wallboard  <b>Insulation:</b> 100mm glass mineral wool density 10.5 kg/m<sup>3</sup></p>	26	IS50/R IS60/B IS70/B IS90/B	2.7 3.9 4.5 5.4	60* 60*	0.44
RCL 21	 <p><b>Outer leaf:</b> 300mm concrete  <b>Studs:</b> Cornet I Studs at 600mm centres  <b>Lining:</b> inner layer 50mm Lafarge Thermalcheck K wallboard, outer layer 12.5mm Lafarge dBcheck wallboard  <b>Insulation:</b> 50mm glass mineral wool density 24 kg/m<sup>3</sup></p>	26	IS50/R IS60/B IS70/B IS90/B	2.7 3.9 4.5 5.4	60* 60*	0.31
<b>(Upgrade to existing brick wall)</b>						
RCL 17	 <p><b>Construction:</b> 102mm Brickwork, with a <math>\lambda</math> of 0.752 W/mK  <b>Lining:</b> independent Cornet I Studs with inner layer of 12.5mm Lafarge Standard wallboard, outer layer 12.5mm Lafarge Standard wallboard or Lafarge Predeco wallboard  <b>Insulation:</b> 25mm glass mineral wool density 16 kg/m<sup>3</sup>, cavity 50mm</p>	250	IS50/R IS60/B IS70/B IS90/B	2.7 3.9 4.5 5.4	30* 30*	0.97

## Notes:

Fire resistance to drylining cavity \* BS 476: Part 22 \* BS EN 1364-1

Performance values are for imperforate, jointed systems using only Lafarge components and installed to the Lafarge specification given. Any alterations may well impair the quoted performance criteria.

U-values differ according to density of brickwork, blockwork or mineral wool. To confirm details contact our Technical Enquiryline on 01275 377789.

All calculations are in accordance with Building Regulations: Conservation of fuel and power, Approved Document L 2002 edition.

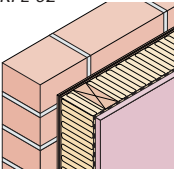
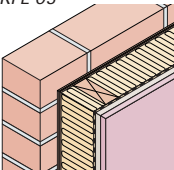
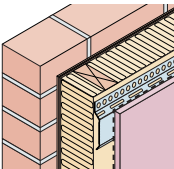
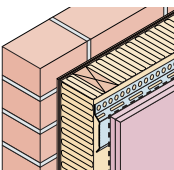
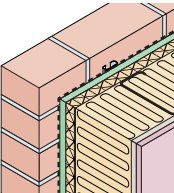
The maximum heights shown are for maximum spans between background bracing. For further information contact our Technical Enquiryline on 01275 377789.



## LININGS

**Table 2.6**  
**Framed external walls, loadbearing**

**Timber**

System reference	Specification	Weight (kg/m <sup>2</sup> )	Maximum height (m)	Fire resistance of inner leaf (minutes) to BS 476, and BS EN 1365	Thermal transmittance (W/m <sup>2</sup> K)	Sound insulation (R <sub>w</sub> dB) (C <sub>tr</sub> dB if applicable)
RFL 02	 <p><b>Lining:</b> one layer 15mm Lafarge Vapourcheck Firecheck wallboard or Lafarge Vapourcheck Megadeco wallboard  <b>Insulation:</b> 90mm glass mineral wool density 16 kg/m<sup>3</sup>, λ= 0.037 W/mK</p>	195	2.4	30* 30*	0.39	51
RFL 03	 <p><b>Lining:</b> inner layer 12.5mm Lafarge Vapourcheck wallboard, outer layer 12.5mm Lafarge Firecheck wallboard or 12.5mm Lafarge Megadeco wallboard  <b>Insulation:</b> 90mm glass mineral wool density 16 kg/m<sup>3</sup>, λ= 0.037 W/mK</p>	204	2.4	60* 60*	0.38	53
RFL 15	 <p><b>Lining:</b> one layer 15mm Lafarge Vapourcheck Firecheck wallboard or Lafarge Vapourcheck Megadeco wallboard on Cormet Resilient Bar at 400mm vertical centres  <b>Insulation:</b> 90mm glass mineral wool density 16 kg/m<sup>3</sup>, λ=0.037 W/mK</p>	215	2.4	30* 30*	0.35	60 -5 C <sub>tr</sub>
RFL 16	 <p><b>Lining:</b> inner layer 12.5mm Lafarge Vapourcheck Firecheck wallboard, outer layer 12.5mm Lafarge Firecheck wallboard or 12.5mm Lafarge Megadeco wallboard on Cormet Resilient Bar at 600mm vertical centres  <b>Insulation:</b> 90mm glass mineral wool density 16 kg/m<sup>3</sup>, λ=0.037 W/mK</p>	230	2.4	60* 60*	0.34	61 -4 C <sub>tr</sub>
RFL 51	 <p><b>External wall:</b> 100mm brickwork with 75mm cavity  <b>Internal framing:</b> 150mm steel load bearing studs at 600mm centres with breather membrane on 25mm Lafarge Thermalcheck Sheathing wallboard tied to brickwork with proprietary channel and tie  <b>Lining:</b> inner layer 12.5mm Lafarge Vapourcheck wallboard, outer layer 12.5mm Lafarge Firecheck wallboard  <b>Insulation:</b> one layer 150mm glass mineral wool density 10.5 kg/m<sup>3</sup> between studs</p>	350	4.2	60* 60*	0.34	59

**Notes**

Fire resistance to drylining cavity \* BS 476: Part 21 \* BS EN 1365

Performance values are for imperforate, jointed systems using only Lafarge components and installed to the Lafarge specification given. Any alterations may well impair the quoted performance criteria.

U-values differ according to density of brickwork, blockwork or mineral wool. To confirm details contact our Technical Enquiryline on 01275 377789.

All calculations are in accordance with the Building Regulations: Conservation of fuel and power, Approved Document L, 2002 edition



**Direct bonding** of plasterboard provides a fast, efficient means of lining masonry and offers a dry solution calling for skills more readily acquired than traditional plastering. Extensively used in volume house building, and smaller projects, for more than 30 years it continues to provide a highly cost-effective means of complying with Building Regulations.



### Introduction

#### Lafarge Direct Bond

Lafarge Echeck, Lafarge dBcheck, Lafarge Firecheck or Lafarge Standard wallboard, up to 15mm thick and 1200mm wide can be direct bonded to suitable clean, dust free masonry backgrounds using gypsum-based Lafarge Bonding Compound or Lafarge Multi Purpose Adhesive. This method is quick to apply and can be used to correct minor irregularities in the substrate.

#### Performance

The selection of the drylining system, thermal laminate or wallboard will depend on the wall height and the performance required for fire resistance, thermal and sound insulation: refer to the performance table 2.1.

#### Fire spread

Lafarge plasterboards and components are defined as Class 0 in accordance with the National Building Regulations 1991 Approved Document B1/2/3/4/5 Fire Safety and Building Standards (Scotland) Regulations 1990, Regulation D2 when tested to BS 476: Part 6: 1989 and Part 7: 1987 and Euroclass A2.

Lafarge gypsum-based bonding adhesives and jointing compounds are non-combustible when tested in accordance with BS 476: Part 4: 1970 and Euroclass A1.

#### Limitations

This method of fixing is not recommended for solid external walls subject to the ingress of moisture. If ingress cannot be fully eliminated, then use the Cormet Independent Wall Lining System or Cormet Dryliner System.

Lafarge Vapourcheck wallboard, Lafarge Toughcheck, Lafarge Moisture Resistant Firecheck, Lafarge Hydrodeco and Lafarge Moisturecheck wallboard are not suitable for direct bonding and should be mechanically fixed.

See the Cormet Dryliner system for quick and cost effective mechanical fixing of plasterboards to solid backgrounds. See page 37.

The maximum installation height for this system should not exceed 3 metres.

#### System assembly

##### Adhesive Choice

The choice between Lafarge Bonding Compound or Lafarge Multi Purpose Adhesive will depend on the type of background as shown in table 2.8.

Apply adhesive to the walls as shown on page 31: vertical dabs at 300mm centres to the full height. Horizontal rows spaced as listed in table 2.7. Dabs should be 50 to 75mm wide, 250mm long, and 25mm in from the board edges to avoid bridging of joints by the adhesive. The contact area of the dabs must be at least 20% of the board area.

Certain floor/ceiling constructions can allow the circulation of air behind the boards and air may also enter at junctions with partitions and door/window frames. This circulation can reduce the thermal performance of the wall. Building Regulations Approved

#### System components:

See section:

Boards	8
Compounds	
Screws	
Finishes	7

Document L requires the application of continuous horizontal and vertical bands of adhesive around electrical sockets, windows, the specified wall perimeters, junctions and frames of linings to internal faces of external walls.

A continuous band of adhesive at the floor line will ensure a solid base for skirting boards.

If a cavity barrier is required, form this by applying a continuous vertical ribbon of adhesive.

Electrical cables should be protected by conduit.

#### Depth limitation

Minimum finished dab thickness 10mm, maximum 25mm.

**Table 2.7**  
**Application of Lafarge Bonding Compound or Lafarge Multi Purpose Adhesive (MPA)**

Board thickness (mm)	Board width (mm)	Row centres (mm)	Rows of dabs per board
9.5	900	450	3
9.5	1200	400	4
12.5	900	450	3
12.5	1200	600	3

**Table 2.8**  
**Bonding adhesive selection for Standard wallboards**

Background	Typical type examples	Pre-treatment	Adhesive
High suction masonry	Aerated or lightweight aggregate concrete blocks	PVAC bonding agent	Lafarge Bonding Compound
High suction masonry	Aerated or lightweight aggregate concrete blocks	None	Lafarge Multi Purpose Adhesive
Low and medium suction masonry	Common clay and concrete blocks high density clay and concrete blocks,	None	Lafarge Bonding Compound
	Smooth precast concrete	Remove shutter oil and contaminants. Abrade to form rough surface and pretreat with a pvac bonding agent	
Very low suction masonry	High strength concrete	PVAC bonding agent	Lafarge Bonding Compound
PVAC treated surfaces	–	–	Lafarge Bonding Compound

#### Notes:

1. Extremely smooth surfaces may require abrasion prior to PVAC treatment.
2. Surfaces must be free of mould oil and dust. Contaminated surfaces may require chemical cleaning. Painted surfaces are not suitable for direct bonding.



## Application details

### Boarding

Start boarding from a window, door reveal or internal angle. Press the plasterboard with the grey face to the wall firmly against the dabs, checking that it is true and vertical. Fit the board tight against the ceiling and temporarily wedge the bottom edge in position until the compound has set.

Note that **Lafarge Intumescent Acoustic Sealant** should be applied to the perimeter of all drylined areas.

### Movement control joints

Movement control joints are required in wall linings at intervals not exceeding 10 metres, and where the drylining crosses or abuts a structural movement joint.

At movement control joints leave a 12.5mm opening between the plasterboards and apply a continuous vertical ribbon of **Lafarge Bonding Compound** or **Lafarge Multi Purpose Adhesive** on each side of the joint, about 25mm in from the edge of the plasterboard.

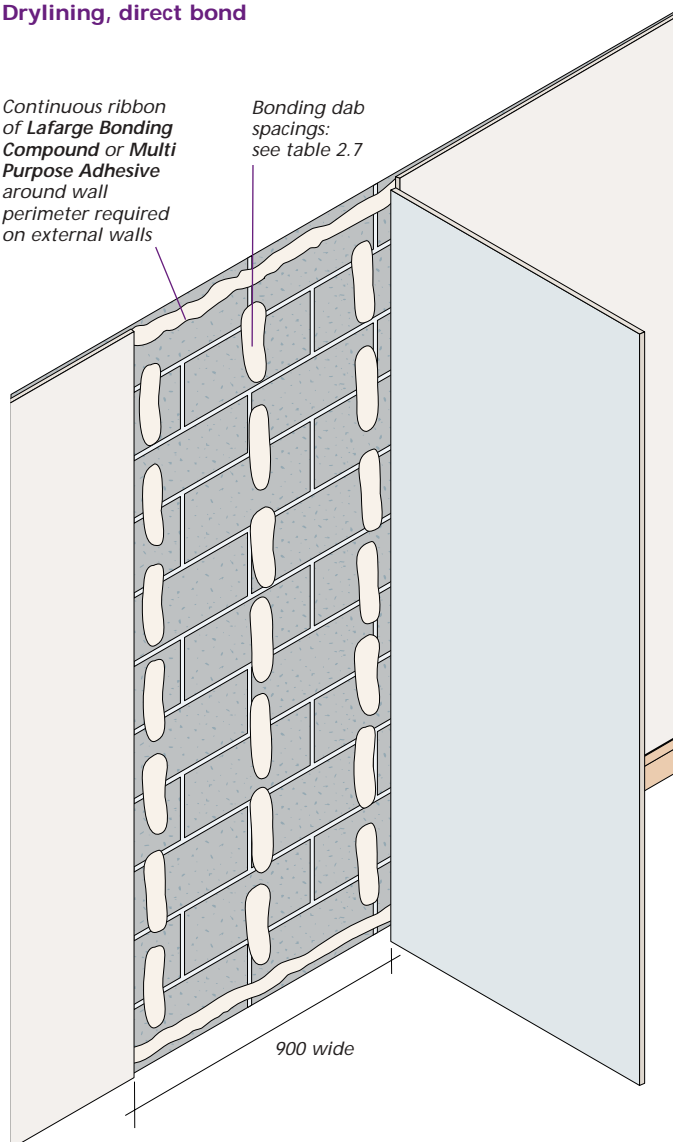
Cut **Lafarge Movement Joint** to length: butt joint lengths end to end where necessary. Attach to the plasterboard surface with 13mm galvanised or stainless steel staples at 150mm centres. Apply **Lafarge Fast Set** in two coats, feathering out the edges of the second coat.

Finally, remove the masking strip from the centre of the movement joint after finishing with suitable Lafarge jointing compound, e.g. **Lafarge Readymix Lite**.

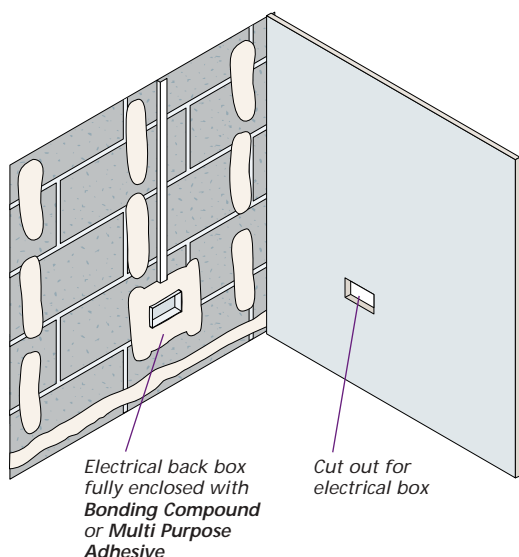
### Drylining, direct bond

Continuous ribbon of **Lafarge Bonding Compound** or **Multi Purpose Adhesive** around wall perimeter required on external walls

Bonding dab spacings: see table 2.7

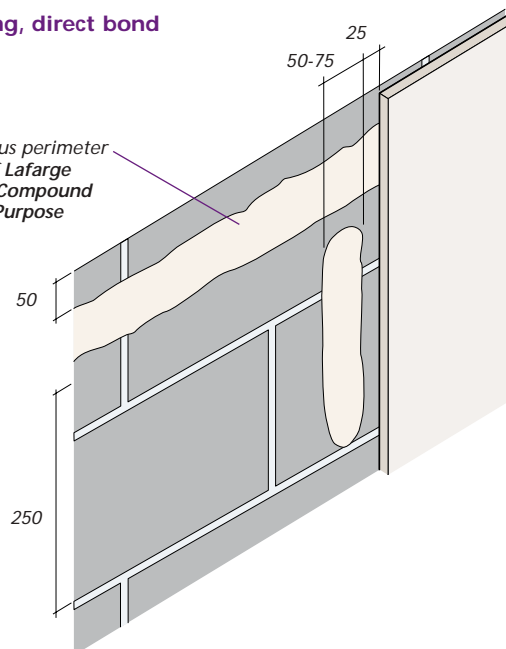


### Drylining, detail at electric socket



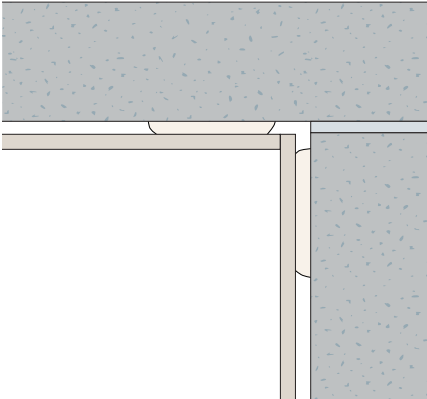
### Drylining, direct bond

Continuous perimeter ribbon of **Lafarge Bonding Compound** or **Multi Purpose Adhesive**

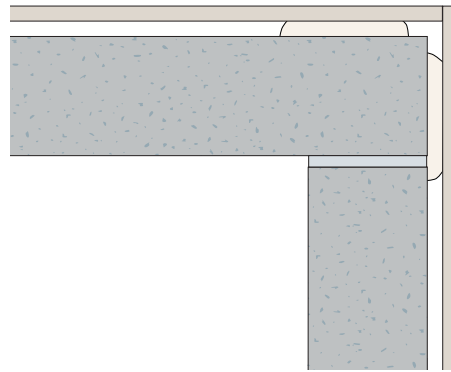


## Application details

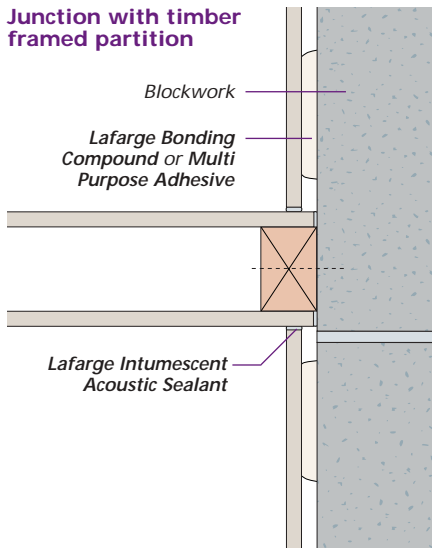
**Internal corner**



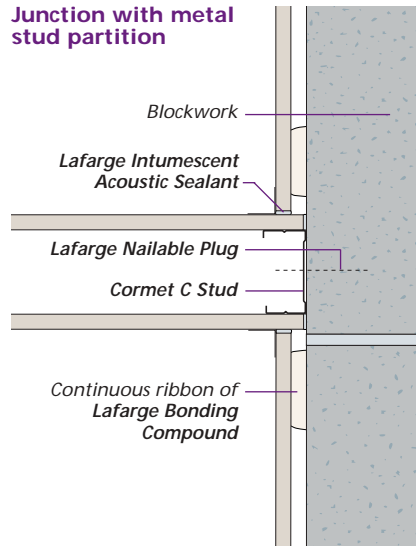
**External corner**



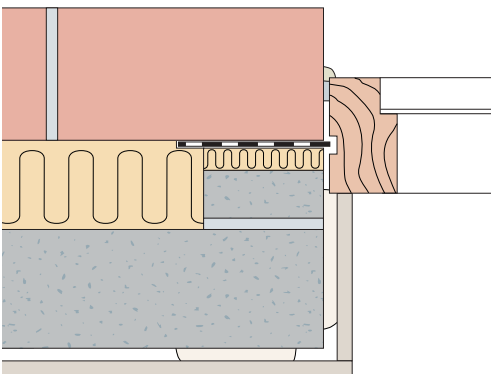
**Junction with timber framed partition**



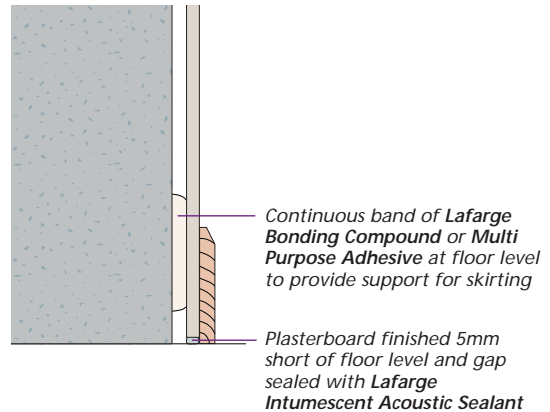
**Junction with metal stud partition**



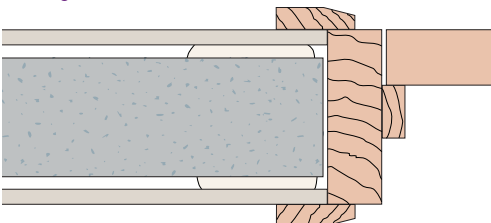
**Window opening**



**Skirting**



**Door jamb**



## Introduction

### Lafarge Thermalcheck Linings: Direct Bond

Lafarge Thermalcheck, Thermalcheck XP and Thermalcheck K can be fixed to masonry using direct bond, Cormet Dryliner, Cormet Independent Wall Lining or timber battens.

Thermal transmittance (U) values for typical constructions using Lafarge Thermalcheck boards are shown in table 2.1.

#### Direct bonding

Apply Lafarge Multi Purpose Adhesive (MPA) direct to any new masonry background. Surfaces of very low suction, such as high strength concrete may require treatment to form a key for the MPA. Refer to table 2.8 for guidance.

Contaminated surfaces may require chemical cleaning.

#### Direct bonding to existing plasterwork needs extra care

Plasterwork in good condition can accept direct bonding providing that the background is sound and any paintwork is sanded back and the whole area treated with a PVAC bonding agent applied in accordance with the manufacturers instructions.

Loose plasterwork needs to be hacked off completely and the remaining substrate treated with a PVAC bonding agent in accordance with the manufacturers instructions before applying MPA.

#### Limitations

This method of fixing is not recommended for solid external walls subject to the ingress of moisture. If ingress cannot be fully eliminated then use the Cormet Independent Lining system.

This system is also unsuitable on solid walls with external render or areas subject to severe frosts.

See the Cormet Dryliner system for quick and cost effective mechanical fixing of plasterboards to damp solid backgrounds which are in the process of drying out.

Maximum installation height for this system should not exceed 3 metres.

### System assembly

#### Adhesive application

Apply MPA to the wall in vertical dabs at 300mm centres. Dabs should be 50 to 75mm wide, about 250mm long, and about 25mm in from the board edges to avoid bridging of the joint by the MPA. Dabs should be applied up to 25mm thick to allow for tamping Lafarge Thermal Laminate into alignment and to provide a 10mm cavity between substrate and board. The contact area of the bands of compound must be at least 20% of the board area.

Certain floor/ceiling constructions can allow the circulation of air behind the Lafarge Thermalcheck boards and air may also enter at junctions with partitions and

door/window frames. This circulation can reduce the thermal performance of the wall. Building Regulations Approved Document L requires the application of continuous horizontal and vertical bands of MPA around the specified wall perimeters, electrical sockets, windows, junctions and frames of linings to internal faces of external walls.

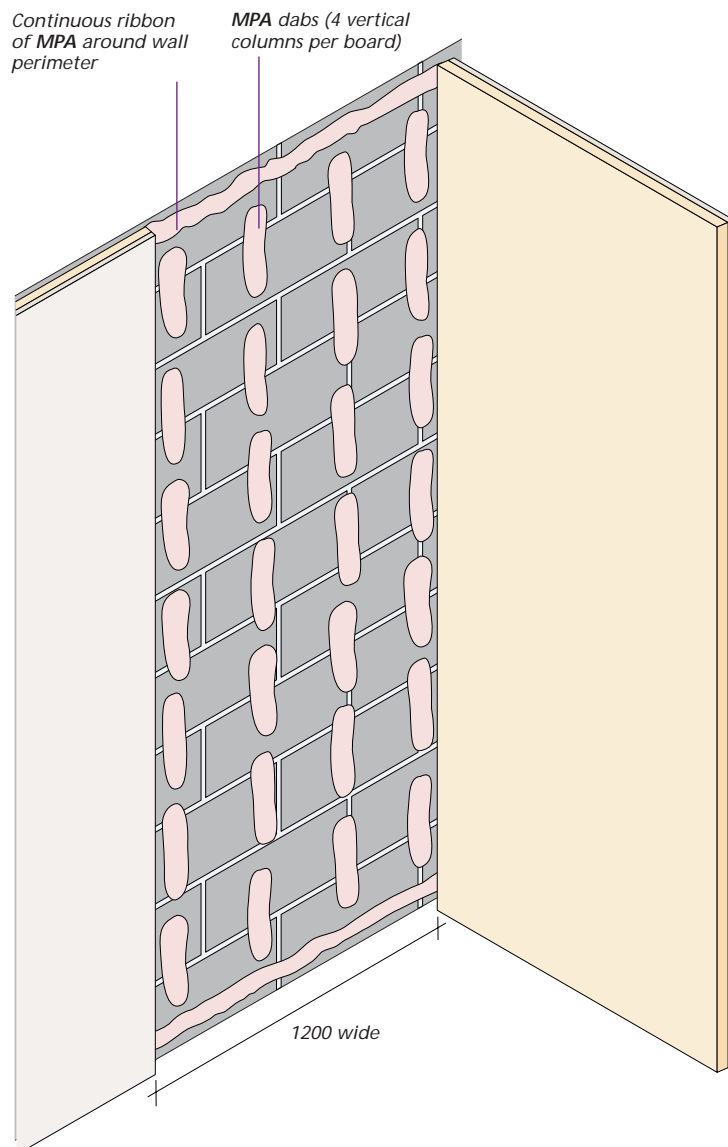
A continuous band of adhesive at the floor line will ensure a solid base for skirting boards.

Electrical cables should be protected by conduit.

#### Depth limitation

Minimum finished dab thickness 10mm, maximum 25mm.

#### Application of bonding adhesive





# LININGS

## DIRECT BOND – THERMALCHECK

### Application details

#### Boarding

Start boarding from a window, door reveal or internal angle. Tamp the thermal laminate firmly against the dabs, checking that it is true and vertical. Fit the board tight against the ceiling and temporarily wedge the bottom edge in position.

When the adhesive has set, drill two 6mm diameter holes through the **Lafarge Thermalcheck board, MPA** and masonry background. Holes should be 300mm from top of board and 25mm from board edges. Ensure holes penetrate masonry by at least 25mm. Insert **Lafarge Nailable Plugs** and drive them just below the plasterboard surface ensuring that the plasterboard liner paper remains intact. Remove the temporary wedges. Refer to the diagram for positioning of **Lafarge Nailable Plugs** on page 35.

**Lafarge Nailable Plugs** are designed as a permanent fixing. They should penetrate the background by a minimum of 25mm. The maximum component thickness, including plaster or render, **MPA** and thermal laminate that can be accommodated by each size plug is as follows:

60mm Nailable Plug - 35mm

80mm Nailable Plug - 55mm

110mm Nailable Plug - 85mm

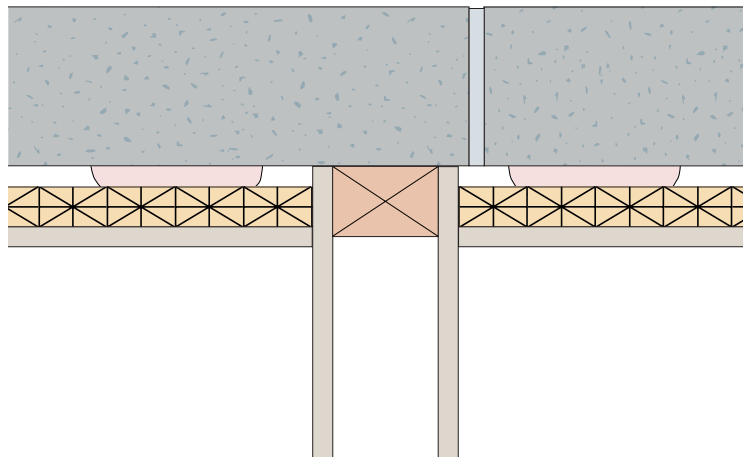
Note. Plaster or render should not be treated as stable substrates.

Nailable plugs must penetrate to a minimum depth of 25mm to substrate behind these finishes.

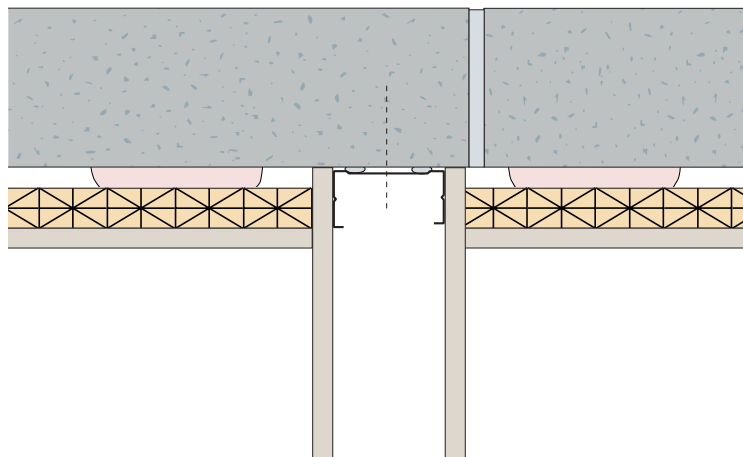
#### Jointing

All joints should be taped and filled in accordance with Lafarge Plasterboard's instructions – see Section 7.

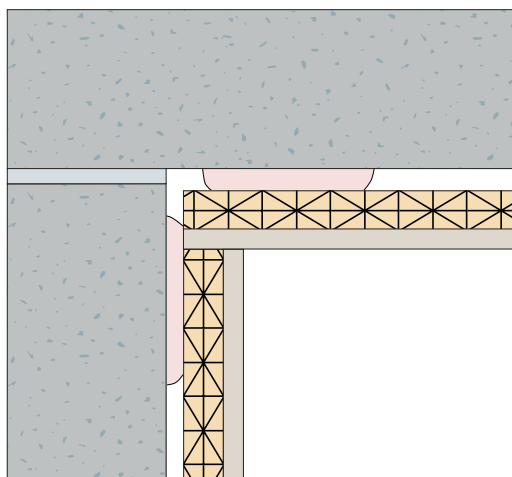
#### Junction with timber framed partition



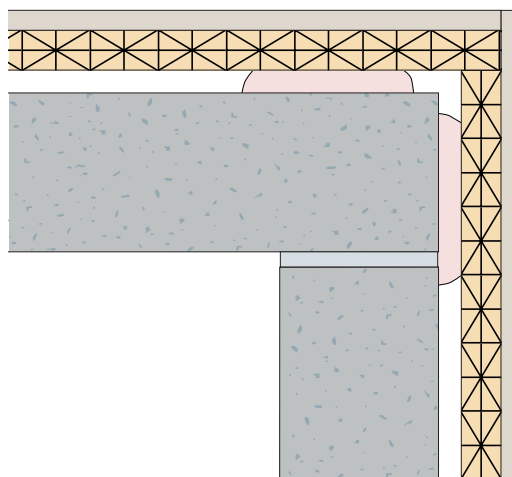
#### Junction with metal stud partition



#### Internal corner

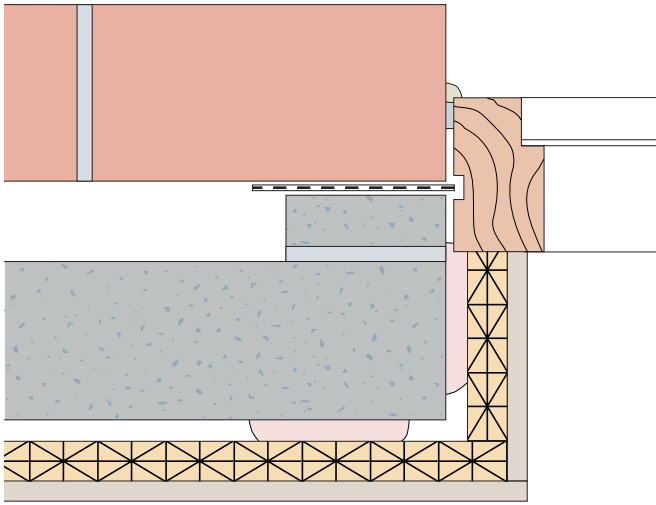


#### External corner

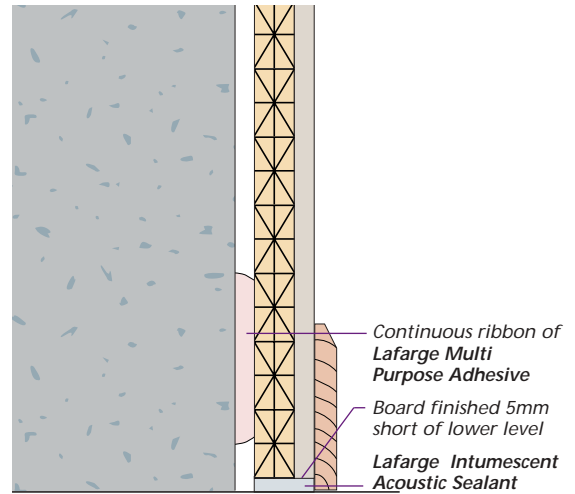


## Application details

### Window opening

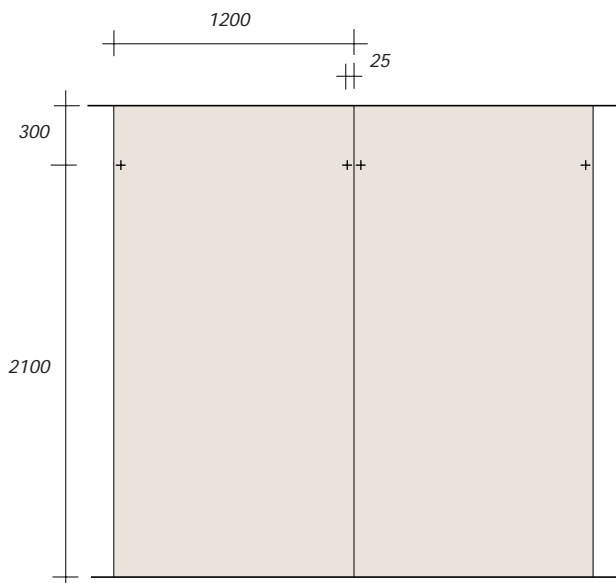


### Skirting



2

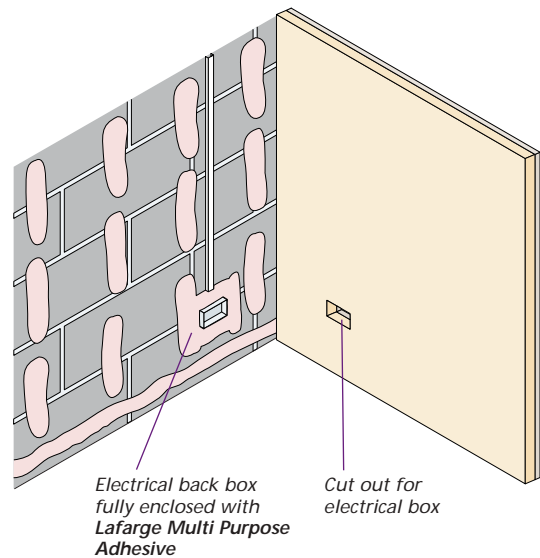
### Nailable plug fixing arrangement



### Nailable plug length calculation

- Plugs have a minimum 25mm depth into the masonry
- Maximum dabs thickness 25mm
- Composite board + dab thickness + 25mm into substrate = nailable plug thickness

### Drylining, detail at electric socket





### Specification clauses

#### Lafarge Direct Bond Systems

##### Scope

The direct bonding of Lafarge plasterboards, including Lafarge Thermalcheck boards to masonry or concrete background using either Lafarge Bonding Compound or Lafarge Multi Purpose Adhesive.

##### Exclusions

This specification shall not be used where backgrounds are or have been subject to damp penetration or ingress, or/and where they are painted.

##### Additional clauses

Add general clauses (see Section 8) if required for:

- Expansion/movement joints
- Health and safety
- Storage of materials
- Site conditions and workmanship

##### NBS clauses

When using the NBS Specification, use clause K10 PLASTERBOARD DRY LININGS/PARTITIONS/CEILINGS.

The Lafarge Plasterboard website contains a full set of NBS clauses, completed for each Lafarge Plasterboard system. See: [www.lafargeplasterboard.co.uk/nbssearch/index.asp](http://www.lafargeplasterboard.co.uk/nbssearch/index.asp)



##### Notes:

Red text lists alternative product specifications.

*(Italic red text within brackets gives advice on selecting the information needed).*

**System reference** *(Insert Lafarge system reference from Performance tables)*

**Location** .....

**Client reference** .....

##### Performance

Maximum height .....m

##### Background

The background shall be free from dust, dirt, grease and must be dry. Any mould or source of damp penetration shall be traced and remedied prior to drylining.

##### Adhesive

Wallboard: Lafarge Bonding Compound

Thermal laminates: Lafarge Multi Purpose Adhesive

*(Delete as applicable)*

##### Adhesive application

Apply adhesive in 250mm dabs at 300mm vertical centres in vertical rows.

Apply continuous ribbons of adhesive 50mm down from the ceiling and 50mm up from the floor.

Apply vertical bands of adhesive to perimeters of external walls of rooms and at perimeters of door, window and service openings.

##### Boarding

Single layer of wallboard to BS 1230: Part 1 (Until superseded by BS EN 520).

Lafarge *(Specify wallboard from the Performance Tables)*

##### Mechanical fixing

Secondary fixing for thermal laminates: 2 Nailable plugs length .....mm should be inserted through the board and into the substrate, allowing a minimum 25mm penetration.

##### Finishing

Lafarge Taping and jointing system, or

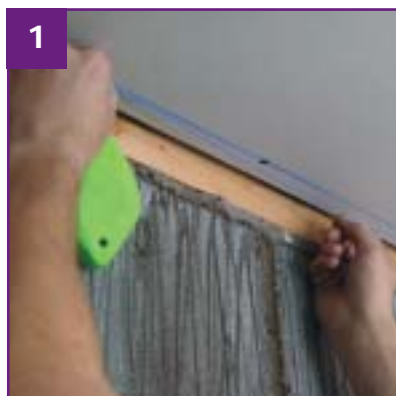
Lafarge Supreme Skim Plaster, or

Lafarge Predeco taping and jointing system

##### Installation

All materials, unless otherwise indicated, shall be supplied by Lafarge Plasterboard Ltd. and shall be installed in accordance with their current literature and in accordance with BS 8212: 1995

### Installation



**Step one**  
Apply a chalk line to floor and ceiling, allowing for the thickness of selected plasterboard or thermal laminate, plus a minimum 10mm of **Lafarge Bonding Compound** or **Lafarge Multi Purpose Adhesive**. See table 2.8 for correct adhesive for the background surface.



**Step four**  
Apply vertical dabs at required centres on the chalk lines.  
Dabs should be 50 to 75mm wide, about 250mm long at 300mm centres and between 10 to 25mm thick.  
The contact area of dabs must be at least 20% of the board area.  
*Note: Apply enough dabs to fix one board at a time.*



**Step two**  
Starting from a window, door reveal or internal angle, mark wall vertically with chalk for the rows of dabs at the required centres, as set out in table 2.7.  
Allow for dabs at 25mm in from board vertical edges.



**Step five**  
Press plasterboard grey face firmly against the dabs, fitting the board tight against the ceiling. Temporarily wedge the bottom edge in position using offcuts.  
At corners, align as shown in the application details.  
Ensure tight butt joints at junctions.



**Step three**  
On external walls apply continuous perimeter ribbon of **Lafarge Bonding Compound** or **Lafarge Multi Purpose Adhesive** at 50mm below ceiling line and 50mm above floor level.  
A continuous perimeter should also be applied around any service cut out i.e. electrical back box.



**Step six**  
Tamp board into alignment with floor and ceiling chalk lines using a straight edge.  
Remove wedges when the compound has dried (allow 8 hours).  
For thermal laminates, secure with two nailable plugs after **Lafarge Multi Purpose Adhesive** has set. Refer to diagram on page 35.

Installation details on Lafarge systems are also available in the *Lafarge Installation Guide* or online at:  
[www.lafargeplasterboard.co.uk](http://www.lafargeplasterboard.co.uk)

## Introduction

### Cormet Metal Furring System

The **Cormet Metal Furring** system is used for mechanical fixing of plasterboards not suitable for direct bonding, ie **Lafarge Vapourcheck**, **Lafarge Moisturecheck** and **Thermal Laminates**. This system thus allows the provision of a high performance wall lining with better thermal insulation properties and vapour resistance.

**Cormet Metal Furring Channels** are direct bonded to the background and the plasterboard is mechanically fixed to the furrings. The system is suitable for fixing all types of plasterboards provided that the substrate remains dry.

The selection of the drylining system, thermal laminate or wallboard will depend on the wall height and the performance required for fire resistance, thermal and sound insulation: refer to the performance table 2.1.

### Fire spread

Lafarge plasterboards and components are defined as Class 0 in accordance with the National Building Regulations 1991 Approved Document B1/2/3/4/5 *Fire Safety* and Building Standards (Scotland) Regulations 1990, Regulation D2 when tested to BS 476: Part 6: 1989 and Part 7: 1987 and Euroclass A2.

Lafarge gypsum-based bonding adhesives and jointing compounds are non-combustible when tested in accordance with BS 476: Part 4: 1970 and Euroclass A1.

### Limitations

This method of fixing is not recommended for solid external walls subject to the ingress of moisture.

### Components

The range of components is listed in table 2.9.

The design of the **Cormet Metal Furring Channel** ensures high strength and easy installation. The bearing face has deep knurling for easier screw fixing, which, combined with the board alignment guide, makes drylining quicker.

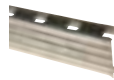
### System components:

See section:

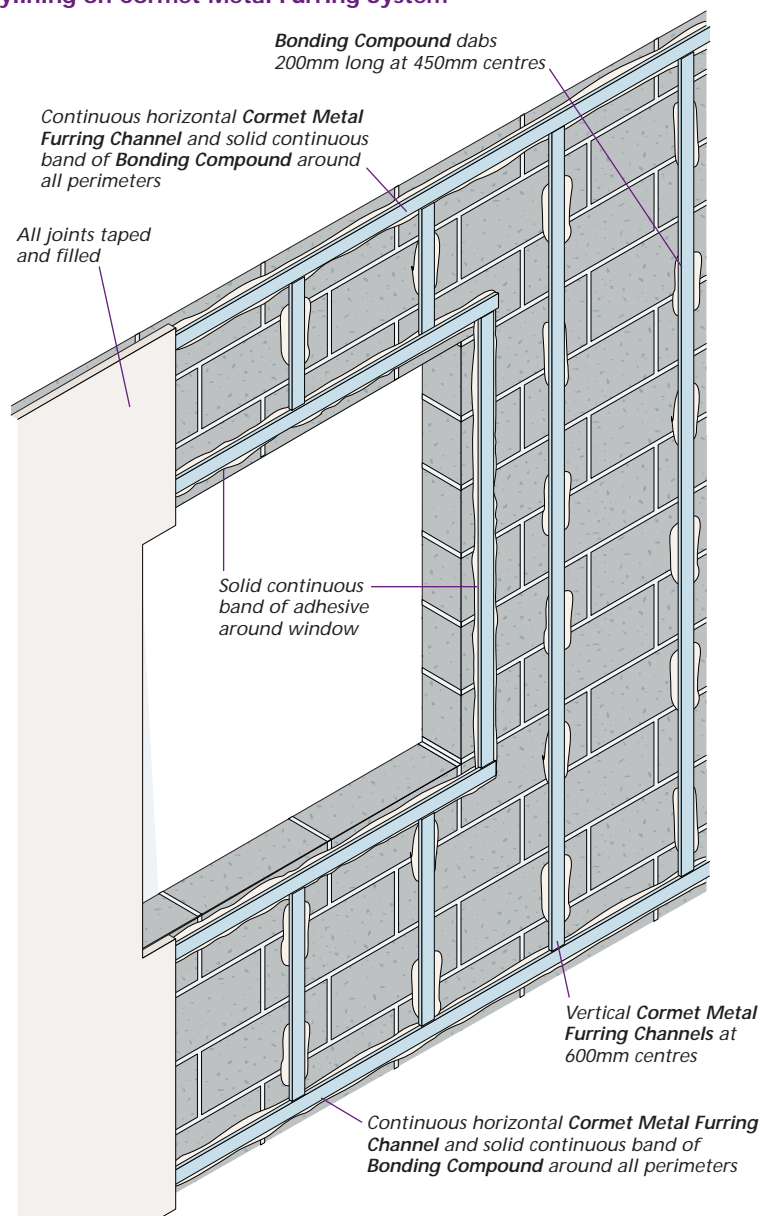
Boards	8
Compounds	
Screws	
Finishes	7

**Table 2.9 Cormet Metal Furring system components**

Component	Lafarge code	Size
Metal Furring Channel	MFWC	Length 2260mm
Bonding Compound	Bond25	25 kg bags
Multi Purpose Adhesive	ADHESIVE	25 kg bags



### Drylining on Cormet Metal Furring System



## Application details

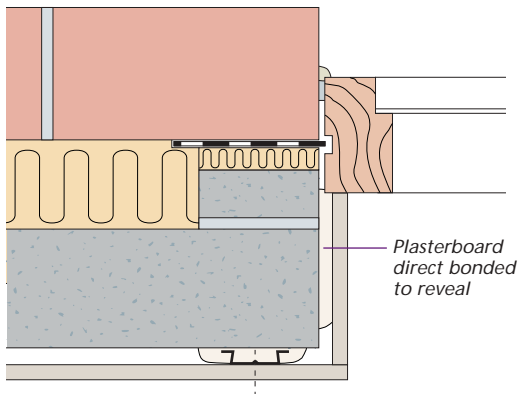
### System assembly

Apply dabs of **Bonding Compound** 200mm long at 450mm vertical centres to the background. For background preparation see the **Direct Bonding** method.

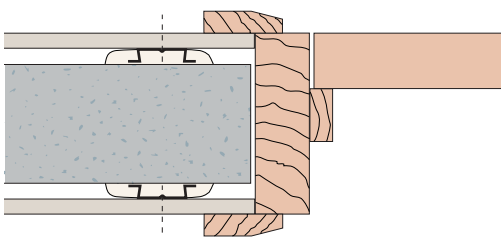
Locate **Cormet Metal Furring Channels** vertically at 600mm centres for 12.5mm wallboard and not more than 100mm from corners and openings. Also apply the **Cormet Furring Channel** sections horizontally at the ceiling and floor line between the vertical furrings.

Around reveals apply the wallboard directly with dabs of **Lafarge Bonding Compound**. For **Lafarge Vapourcheck** fix the Furring Channels vertically in reveals to support the boards. Small background surface irregularities can be compensated for when levelling the furrings.

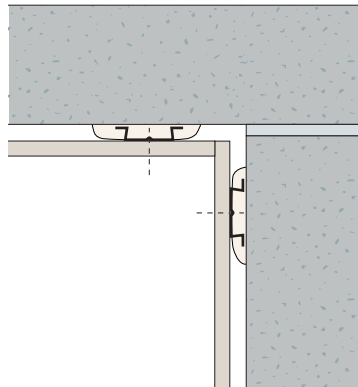
### Window opening



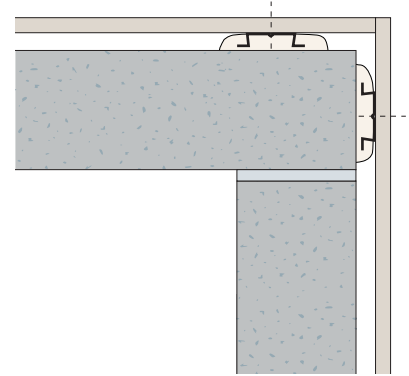
### Door jamb



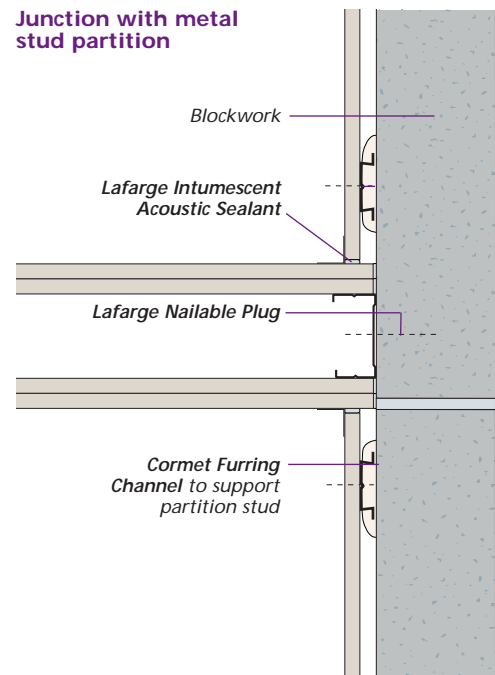
### Internal corner



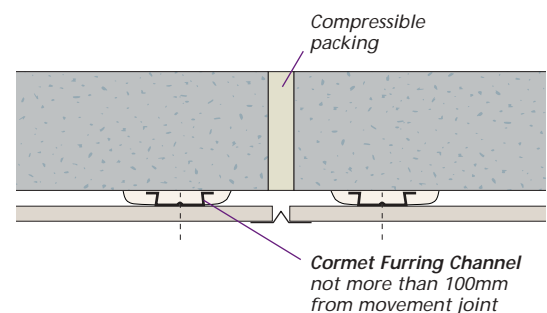
### External corner



### Junction with metal stud partition



### Movement control joint



## Specification clauses

### Cormet Metal Furring Systems

#### Scope

Mechanically fixing wallboards that cannot be direct bonded. **Cormet Furring Channels** bonded with **Lafarge Bonding Compound**.

#### Exclusions

This specification shall not be used where backgrounds are or have been subject to damp penetration or ingress, or/and where they are painted.

#### Additional clauses

Add general clauses (see Section 8) if required for:

- Expansion/movement joints
- Health and safety
- Storage of materials
- Site conditions and workmanship

#### NBS clauses

When using the NBS Specification, use clause K10 PLASTERBOARD DRY LININGS/PARTITIONS/CEILINGS.

The Lafarge Plasterboard website contains a full set of NBS clauses, completed for each Lafarge Plasterboard system. See: [www.lafargeplasterboard.co.uk/nbssearch/index.asp](http://www.lafargeplasterboard.co.uk/nbssearch/index.asp)



#### Notes:

Red text lists alternative product specifications.

*(Italic red text within brackets gives advice on selecting the information needed).*

#### System reference *(Insert Lafarge system reference from Performance tables)*

**Location** .....

**Client reference** .....

#### Performance

Maximum height .....m

#### Background

The background shall be free from dust, dirt, grease and must be dry. Any mould or source of damp penetration shall be traced and remedied prior to drylining.

#### Pre-treatment

Remove contamination, paint or loose material using chemicals and/or abrasion. Apply PVAC bonding agent to BS 5270.

#### Lining design thickness

The design thickness of the lining from face of background to front face of wallboard including adhesive thickness is .....mm subject to tolerance under BS 8212: 1995.

#### Chasing out for services

Chase out to a minimum .....mm depth to accommodate services

#### Adhesive application

Apply Lafarge Bonding Compound in 250mm horizontal dabs at 450mm centres between vertical rows, 50mm down from the ceiling and 50mm up from the floor.

Apply continuous ribbons of adhesive 50mm down from the ceiling and 50mm up from the floor.

Apply vertical bands of adhesive to perimeters of external walls of rooms and at perimeters of door, window and service openings.

#### Metal framing

Cormet Metal Furring Channels bedded in dabs of Lafarge Bonding Compound vertical at 400mm horizontal centres.

#### Boarding

Single layer of wallboard. *(Specify wallboard from the Performance Tables)*

#### Board fixing

Lafarge screws at 300mm centres

Type Checkpoint Self-tapping, length, 25mm.

#### Finishing

*Lafarge Taping and jointing system*, or

*Lafarge Supreme Skim Plaster*, or

*Lafarge Predeco taping and jointing system*

#### Installation

All materials, unless otherwise indicated, shall be supplied by Lafarge Plasterboard Ltd. and shall be installed in accordance with their current literature and in accordance with BS 8212: 1995



The **Cormet Dryliner** system provides a simple means of achieving a flat surface on irregular substrates. It also allows the creation of a cavity from 25mm to 130mm to accommodate services.

Equally suited to new build, it offers particular benefits in refurbishment work in period and listed properties where walls are out of true.

Use of the system facilitates air movement within the cavity and minimises the risk of damp penetration.



2



## Introduction

### Cormet Dryliner System

Cormet Dryliner is a completely dry system for drylining walls and ceilings. It is a simple, quick and cost-effective system suitable for many internal applications.

As a wall lining **Cormet Dryliner** is fixed directly to the existing background, allowing a cavity width between wall and plasterboard lining ranging from 25mm to 130mm. Flexibility of cavity width is provided by a choice of two framing methods:

**Standard Reach (SR-RD2)** 25-60mm

**Extended Reach (XR-RD11)** 25-130mm

The system can therefore be used for all common lining applications:

- to allow for hidden services
- to provide high levels of thermal performance
- to provide high levels of acoustic performance
- to level out uneven substrates
- can be fixed to wide range of backgrounds

As a ceiling lining the system can be easily fixed to timber joists, providing high levels of fire protection and sound reduction. See Section 4, Floors and Ceilings.

### Performance

All Lafarge plasterboards and components are defined as Class 0 in accordance with the National Building Regulations 1991 Approved Document B 1/2/3/4/5. The plasterboards are defined as materials of limited combustibility according to table A7 of Appendix A in the above Approved Document. Lafarge jointing compounds, metal systems, textures and bonding compounds are non-combustible when tested in accordance with BS 476: Part 4: 1970 and Euroclass A1.

For system performance data refer to pages 23 and 25-26.

### Components

The range of components is listed in table 2.10.

### System components:

See section:

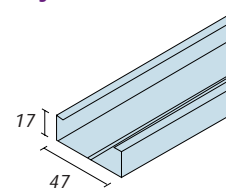
Boards	8
Compounds	
Screws	
Finishes	7

**Table 2.10 Cormet Dryliner system components**

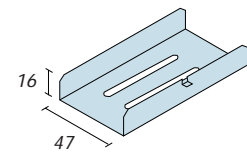
Component	Lafarge code	Length (mm)
Dryliner Channel	RD1	2400, 2700 3000, 3600
Dryliner SR Bracket	RD2	–
Dryliner XR Bracket	RD11	–
Dryliner Channel Connector	RD3	100
Metal Angle	MFC2330	3600
Dryliner Track	RD9	3000
Pan Head Screws	11PHST25	11
Wafer Head Screw	14WHST25	14



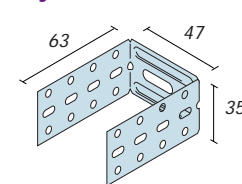
#### Dryliner Channel RD1



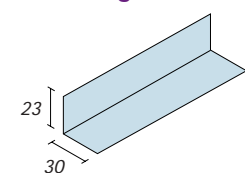
#### Dryliner Channel Connector RD3



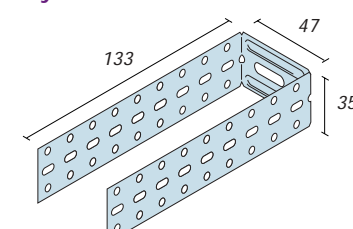
#### Dryliner SR Bracket RD2



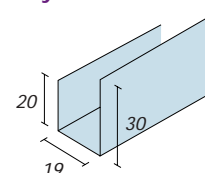
#### Metal Angle MFC2330



#### Dryliner XR Bracket RD11



#### Dryliner Track RD9





## Application details

### System assembly

For cavity widths 25 to 60mm, use **Cormet Standard Reach** bracket RD2.

For cavity widths 25 to 130mm, use **Cormet Extended Reach** bracket RD11.

Fix **Cormet Dryliner Track** RD9 at 600mm centres to the floor and structural soffit allowing for required cavity width. If applying the track directly to new concrete, the concrete must be dry, and a damp proofing membrane should be used.

Mark horizontal lines at 800mm centres and then mark vertical lines at 600mm maximum centres (400mm for thermal laminates) on the wall to locate **Cormet Dryliner Brackets**. Mark lines as close as possible to corners. At internal corners allow for width of abutting lining.

Position **Cormet Dryliner Brackets** RD2/RD11 directly to wall at maximum 800mm vertical centres on marked lines. Tap-in anchors may be used but care must be taken NOT to hammer flat the stiffening ribs. Plug and screw fixings are preferred. Fold up legs and secure to wall with suitable fixing through horizontal slot. Cut **Cormet Dryliner Channel** RD1 5mm shorter than the floor to ceiling height. Locate **Cormet Dryliner Channel** RD1 into **Cormet Dryliner Track** RD9 at floor and soffit. Where wall height exceeds channel length, connect two lengths of channel together with **Cormet Dryliner Channel Connector** RD3.

Ensure channel is plumb and secure to bracket by fixing each leg of bracket to the channel using a **Lafarge Pan Head Screw** (11PHST25). The slotted centre holes allow adjustment by loosening the screw, re-positioning the RD1 and re-tightening the screw. Pan head screws must be used for this application. Where necessary bend back the legs of the bracket so it does not protrude past the face of the channel.

### Cormet Dryliner

**Cormet Dryliner**  
Track fixed to soffit

**Cormet Dryliner**  
Channels screw  
fixed to drylining  
brackets using  
**Lafarge Pan Head**  
screws

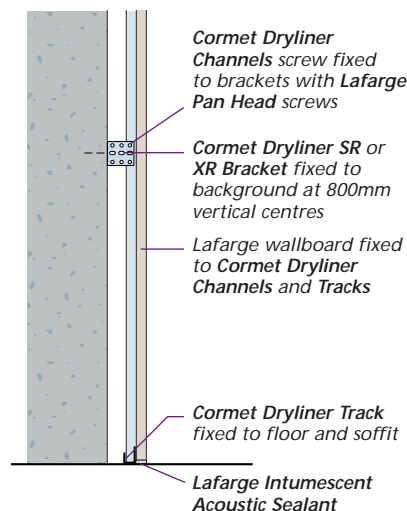
All joints taped  
and filled

**Cormet Dryliner**  
Bracket as  
required

**Cormet Dryliner**  
Track fixed to floor

**Lafarge Intumescent**  
**Acoustic Sealant**

### Floor detail



**Table 2.11 Framing centres**

Board thickness (mm)	Board width (mm)	Framing centres (mm)
12.5	1200	600
12.5	900	450
Lafarge Thermal Laminate		400

## Application details

### Internal corners

At internal corners, where it is not possible to screw fix one of the SR bracket legs to the **Cormet Dryliner Channel**, fix as shown in illustration.

### External corners

At external corners, position brackets as close as possible to each side of the corner, and attach **Cormet Metal Angle** MFC2330 vertically to horizontal dryliner track with **Lafarge Wafer Head Screws**.

Similarly reinforce all corners at window openings and featured linings. At openings, install **Cormet Dryliner Channel** and **Cormet Metal Angle** to accommodate the door frame.

### Insulation

Where required insert mineral wool into the framing ensuring that the mineral wool continues over the bracket to form one continuous lining. Fit the insulation prior to fixing the **Cormet Dryliner Channels**.

### Boarding

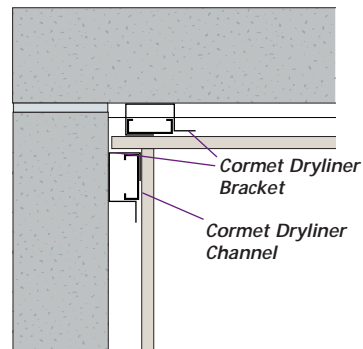
Cut plasterboard 5mm shorter than the floor to ceiling height, butt firmly against the ceiling and fix to the framing with **Lafarge Drywall Screws** at 300mm centres. Align wallboards, leaving a nominal 3mm gap between each other and centre edges of the plasterboard over the channels. Where the lining is greater than the plasterboard length, use **Cormet MFIX Fixing Channel** or **Cormet Flat Strap** FS90/W to support the horizontal cut edges of the plasterboards. For double board systems use 50mm FS50/R **Cormet Flat Strap** for horizontal joints installed between the board layers.

For screw lengths see Section 8 Sitework.

### Jointing

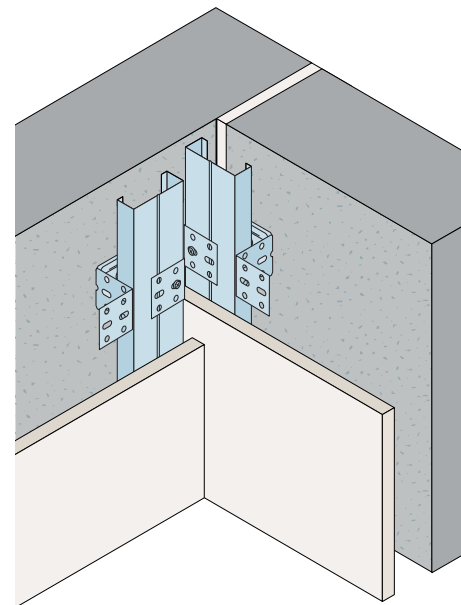
Apply **Lafarge Jointing Compound** to all joints either by hand or by machine in accordance with Lafarge Plasterboard's instructions.

### Internal corner

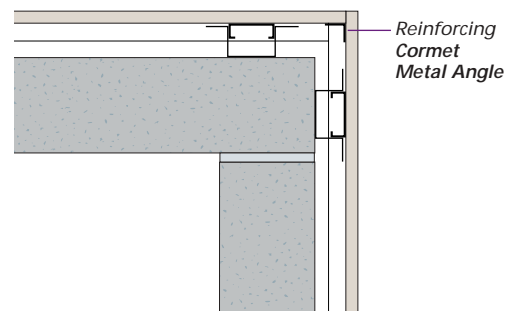


### Dryliner Bracket

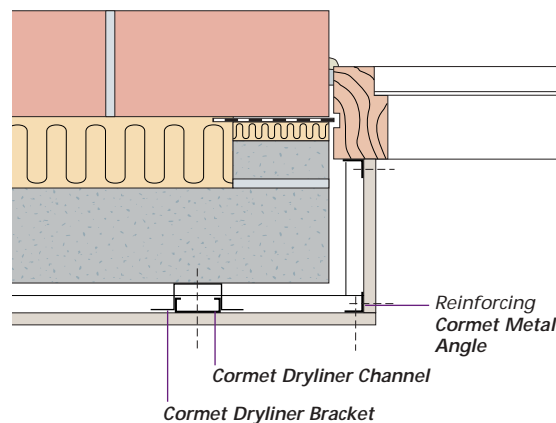
*adjusted for internal corner application*



### External corner



### Window/door frame detail



## Specification clauses

### Cormet Dryliner

#### Scope

The mechanical fixing of Lafarge plasterboards, including **Lafarge Vapourcheck** wallboard and **Lafarge Thermalcheck** boards to masonry or concrete backgrounds.

#### Exclusions

This system may not be used on friable or unstable backgrounds where a sound mechanical fixing for the brackets cannot be achieved. Also backgrounds subject to continuous damp ingress which cannot be controlled/rectified.

#### Additional clauses

Add general clauses (see Section 8) if required for:

- Expansion/movement joints
- Health and safety
- Storage of materials
- Site conditions and workmanship

#### NBS clauses

When using the NBS Specification, use clause K10 PLASTERBOARD DRY LININGS/PARTITIONS/CEILINGS.

The Lafarge Plasterboard website contains a full set of NBS clauses, completed for each Lafarge Plasterboard system. See: [www.lafargeplasterboard.co.uk/nbssearch/index.asp](http://www.lafargeplasterboard.co.uk/nbssearch/index.asp)

**NBSPlus**

#### Notes:

Red text lists alternative product specifications.

*(Italic red text within brackets gives advice on selecting the information needed).*

#### System reference *(Insert Lafarge system reference from Performance Tables)*

**Location** .....

**Client reference** .....

#### Performance

Maximum height .....m

Fire rating .....mins *(dependent on background)*

Airborne insulation *(dependent on background)*

Thickness *(dependent on background)*

#### Horizontal joints

Use **Cormet Fixing Strap FS50/R, FS90/W** or **Cormet Fixing Channel MFIX** if partition height exceeds board height.

#### Insulation

*(Specify insulation thickness and grade/density from the Performance Tables)*

#### Acoustic mastic

6mm bead of Lafarge Acoustic Sealant around perimeter of the framing.

#### Channels

Lafarge Dryliner Channels reference RD1 at max 600mm centres.

#### Floor/head track

Lafarge Dryliner Channels reference RD9 fixed at max 600mm centres.

#### Floor/head track fixings

Spit Pulsa 700P nailing system for concrete or steel using fixings dependent on material substrates at max 600mm centres

Standard concrete use Spit C6 Pins *(Select from 20, 25, 30, 35, 40)mm*, or

Hard concrete use Spit HC6 Pins *(Select from 17, 20, 22, 27)mm*, or

Steel use Spit SC6 Pins *(Select from 15, 20)mm*

Spit Hammer-In fixing for concrete at maximum 600mm centres

Type Spit Hit CL35 *(Select from 30, 40, 50)mm*

#### Brackets

Lafarge Dryliner Brackets reference **RD2, RD7** or **RD11** secured at 800mm vertical centres.

#### Bracket fixings

Spit Pulsa 700P nailing system for concrete, block or steel using fixings dependent on material substrates

Standard concrete, or block use Spit C6 Pins *(Select from 20, 25, 30, 35, 40)mm*, or Steel use Spit SC6 Pins *(Select from 15, 20)mm*

Spit Hammer-In fixings for concrete at max 600mm centres

Type Spit Hit M5 *(Select from 27, 37)mm*, or Spit Hit M6 *(Select from 32, 39, 52, 67)mm*

#### Boarding

**Single** or **double** layer of wallboard.

Inner layer *(Specify wallboard from the Performance Tables)*

Outer layer *(Specify wallboard from the Performance Tables)*

#### Board fixings

Lafarge screws at 300mm centres

Type **Drywall Self-tapping**, or **Toughcheck Self-tapping**, or **Checkpoint Self-tapping**, or **Megadeco Self-tapping**.

Length, inner layer *(Select from 25, 32, 38, 41, 44, 51, 57, 63, 67, 76)mm*

Length, outer layer *(Select from 25, 32, 38, 41, 44, 51, 57, 63, 67, 76)mm*

#### Finishing

**Lafarge Taping and jointing system**, or

**Lafarge Supreme Skim Plaster**, or

**Lafarge Predeco taping and jointing system**

#### Installation

All materials, unless otherwise indicated, shall be supplied by Lafarge Plasterboard Ltd. and shall be installed in accordance with their current literature and in accordance with BS 8212: 1995.

Given the vast selection of different types of substrate that are encountered on-site, it is strongly recommended that adequate site tests be carried out to establish a recommended load on fixings

## Installation



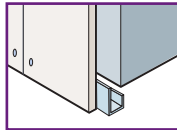
**1**

### Step one

Fix **Cormet Dryliner Track RD9** at 600mm centres to the floor using suitable fixings. Allow for required cavity width (25mm to 130mm).

*Note: If applying **Cormet Dryliner Track** directly to new concrete, the concrete should be dry and a damp-proof membrane must be used.*

*Note: Ensure that the longer flange of both **Cormet Dryliner Tracks** is on the plasterboard side.*



**4**

### Step four

Cut each **Cormet Dryliner Channel RD1** 5mm shorter than the floor to ceiling height. Locate **Cormet Dryliner Channel RD1** into **Cormet Dryliner Track RD9** at floor and ceiling.

Where wall height exceeds channel length, connect two lengths of channel together with **Cormet Dryliner Channel Connector RD3**.



**2**

### Step two

Fix **Cormet Dryliner Track RD9** to ceiling with a suitable fixing, ensuring **Cormet Dryliner Track RD9** at ceiling is plumb with that on the floor.

For 12.5mm wallboard mark horizontal lines at 800mm centres and vertical lines at 600mm centres. Mark lines 50mm from external corners. At internal corners allow for width of abutting wall lining and framing.



**5**

### Step five

Ensure channel is plumb, and secure to each bracket leg using **Lafarge Pan Head Self Tapping Screws**. Where necessary bend back the legs of the bracket so they do not protrude past the face of the channel.



**3**

### Step three

Starting at centre of wall height, position **Cormet Dryliner Brackets** directly to wall at maximum 800mm vertical centres on the marked lines. Secure each bracket to wall with a suitable fixing.



**6**

### Step six

Cut plasterboard 5mm shorter than the floor-to-ceiling height, butt board firmly against ceiling and fix plasterboards to the framing with **Lafarge Drywall Self Tapping Screws** at 300mm centres.

Align wallboards leaving a nominal 3mm gap between each other and centre the edges over the channels. Where the height of the lining is greater than the plasterboard length, use **Cormet Fixing Channel MFIX** or **Cormet Flat Strap FS90/W** (or **Cormet Flat Strap FS50/R** for double boarded systems) to support the horizontal cut edges of the plasterboards.

Installation details on Lafarge systems are also available in the *Lafarge Installation Guide* or online at:  
[www.lafargeplasterboard.co.uk](http://www.lafargeplasterboard.co.uk)



**Cormet Independent Wall Lining** systems require reduced support from other structural elements, provide a service void between lining and wall and can be specified for projects up to 5.4 metres in height. They avoid the risk of plasterboard joints cracking due to background movement of the building. They are well suited to a wide range of commercial and industrial constructions, particularly where fast-track techniques are adopted.

**Cormet Independent Wall Lining** is commonly specified for applications ranging from factories and warehouses to multiplex cinemas.



2



## Introduction

### Cormet Independent Wall Linings

Cormet Independent Wall Lining systems combine the features of other Cormet metal systems to give high strength and quickly assembled drylining.

They are especially suited to drylining reinforced concrete walls and steel framed walls. As they are fixed clear of the external wall they allow space for services, or for high levels of thermal and acoustic insulation within the cavity. They are also suited to renovation work where the existing wall may form an unsuitable substrate for other systems.

The system uses **Cormet I Studs**, together with **Cormet C Studs** and **Cormet U Tracks** as used in the **Cormet Metal Stud Partition** system. Mineral wool batts can be inserted into the framing to improve the thermal and acoustic performance of the system.

### Performance

The selection of drylining systems, insulation and boarding will depend on the wall height and the performance required for fire resistance, thermal and sound insulation: refer to performance table 2.5.

Lafarge plasterboards and components are defined as Class 0 in accordance with the National Building Regulations 1991 Approved Document B1/2/3/4/5 (Fire Safety) and Building Standards (Scotland) regulations 1990, Regulation D2 when tested to BS 476: Part 6: 1989 and Part 7: 1987.

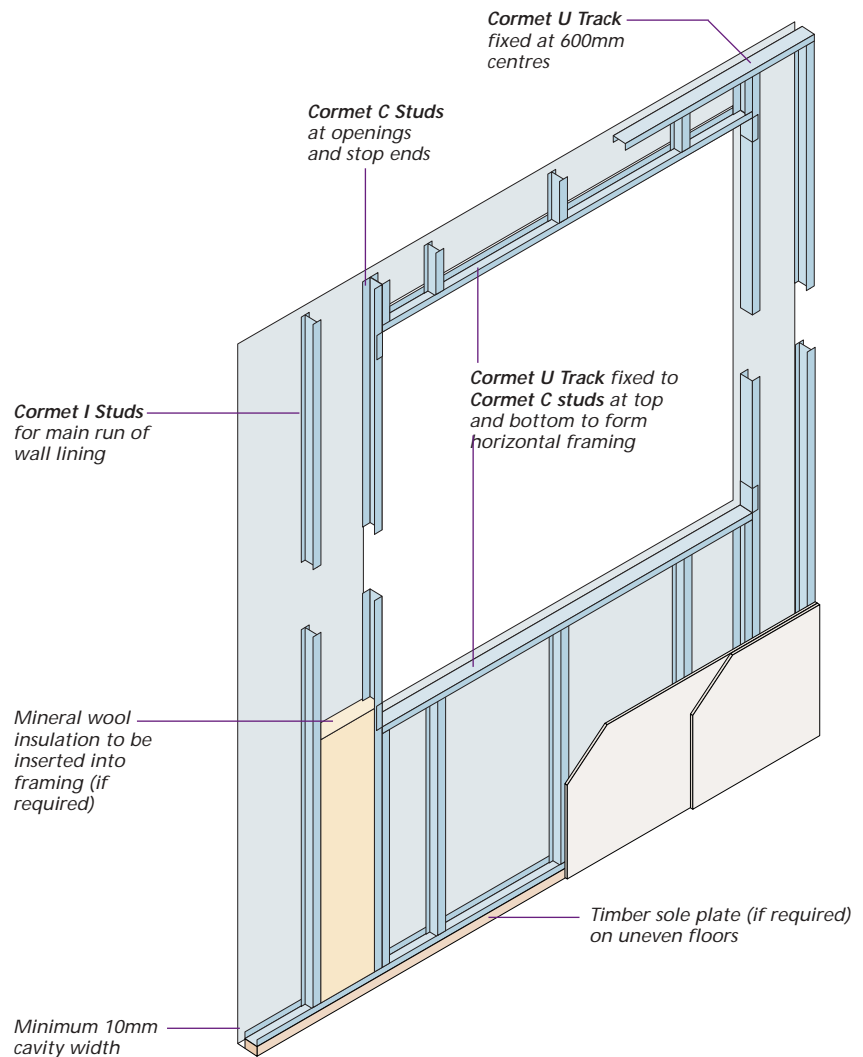
Cormet metal sections and gypsum-based jointing compounds are non-combustible when tested in accordance with BS 476: Part 4: 1970 and Euroclass A1.

### System components:

See section:

Boards	8
Compounds	
Screws	
Finishes	7

### Cormet Independent Wall Lining



## Components

### Components

The range of Cormet metal components is shown and listed in table 2.12.

Colour coding is used to identify metal thickness:

Red (R) 0.5mm

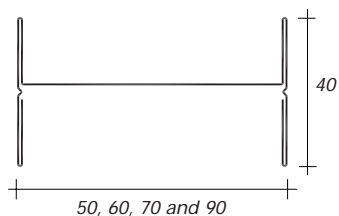
Blue (B) 0.7mm

White (W) 0.9mm

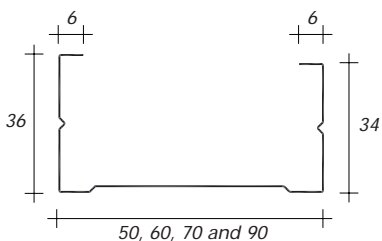
**Table 2.12 Cormet Independent Wall Lining Components**

Component	Product code	Width (mm)	Lengths (mm)
I Stud	IS50/R	50	2400, 3000
	IS60/B	60	3600, 4200
	IS70/B	70	3600, 4200
	IS90/B	90	6000, 7200
C Stud	CS50/R	50	2400, 2700, 3000, 3600
	CS60/R	60	2400, 2700, 3000, 3600, 4200
	CS70/R	70	2400, 2700, 3000, 3300, 3600, 4200, 4800
	CS90/R	90	2700, 3000, 3600, 4200
	CS90/W	90	4800, 6000, 7200
U Track	UT52/R	52	3000
	UT62/R	62	3000
	UT72/R	72	3000
	UT92/R	92	3000
U Track Deep Flange*	UDT52/B	52	3000
	UDT62/B	62	3000
	UDT72/B	72	3000
	UDT92/B	92	3000
Extra Deep U Track*	UXT72/B	72	3000
	UXT92/W	92	3000
Lafarge Intumescent Acoustic Sealant	ACOUSTIC (INTU)		0.9 litre cartridge
	ACO 38 (INTU)		0.38 litre cartridge
Drywall Self-tapping screws		25 to 76	

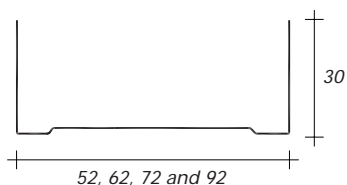
### Cormet Independent Wall Lining components



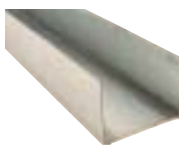
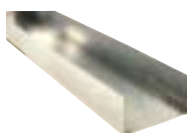
#### I Stud



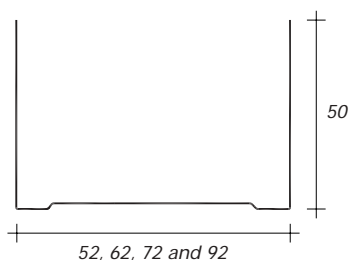
#### C Stud



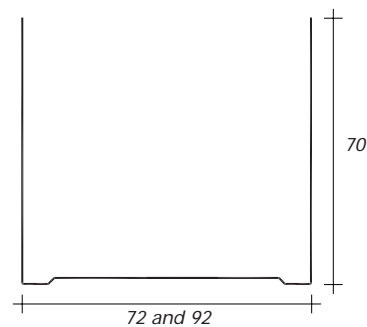
#### U Track



\* For linings over 4.2m high, deep or extra deep tracks are recommended  
Component specifications may vary from those shown.



#### U Track Deep Flange



#### Extra Deep U Track



## Application details

### System assembly

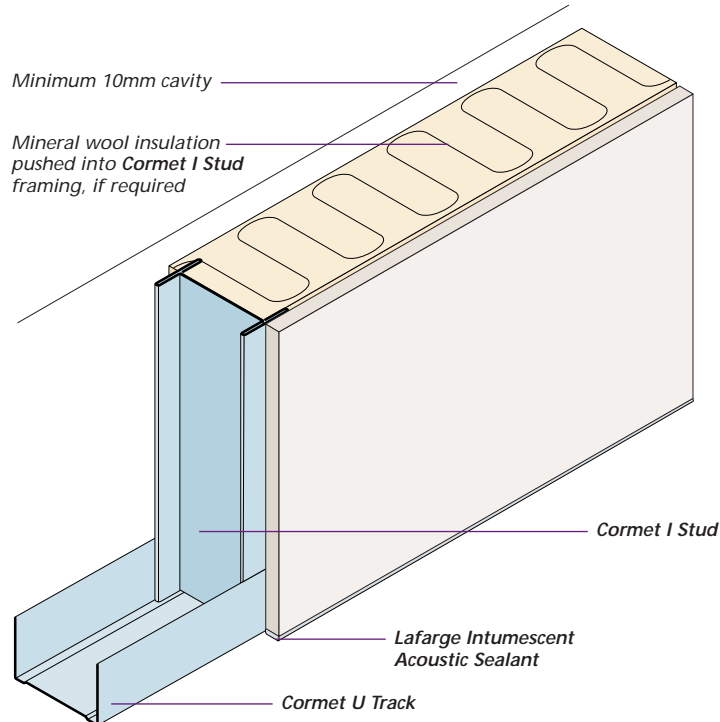
#### Framing

Set out the **Cormet Independent Wall Lining** system, allowing a minimum cavity width of 10mm between the external wall and the adjoining face of the drylining system, taking into account the thickness of the insulation which may be greater than the width of the framing.

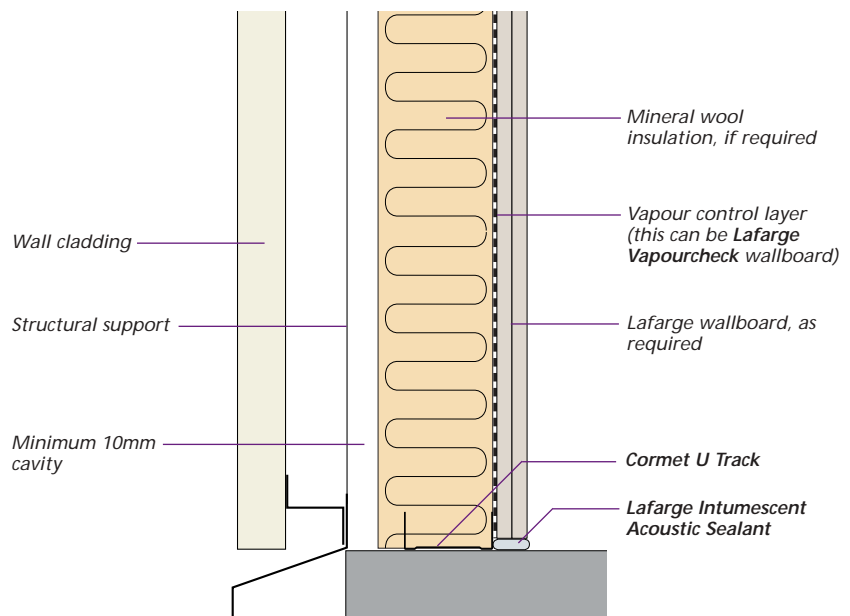
Fix **Cormet U Track** to the floor and the structural soffit at 600mm centres. If applying the floor track direct to new concrete, the concrete must be dry, and a damp proofing membrane should be used. On uneven floors a timber sole plate may be required.

Cut **Cormet Studs** 5mm shorter than the floor to soffit height to allow for floor variations. Insert the studs into the floor and head tracks and twist to lock, positioning them at up to 600mm centres. Arrange the framing so that board widths of less than 300mm are avoided. Use **Cormet I Studs** for the main run of the wall lining, with **Cormet C Studs** at abutments, openings and corners.

#### Detail of construction



#### Base detail



## Application details

### Insulation

Insert mineral wool insulation into the framing within the flanges of the studs and the tracks. Where insulation is thicker than stud width, ensure insulation is installed as the diagram opposite. Ensure that they are fully inserted into the framing, and that the cavity between the lining and the external wall is maintained. Where insulation is thicker than the framing width, fit the insulation with its exposed face level with the inner face of the framing, and so that the edges of the insulation is split by the flanges of the studs and tracks at the back.

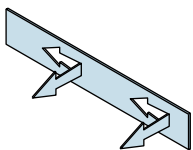
Narrower batts and all quilts should be suspended on **Cormet Insulation Hold Strips** 150mm from top and at 1200mm vertical centres down the lining.

### Boarding

Cut plasterboard 5mm shorter than the floor-to-soffit height, butt firmly against the ceiling and fix to the framing with **Lafarge Drywall Screws**. Align wallboards, leaving a nominal 3mm gap between each other and centre edges of the plasterboard over the studs.

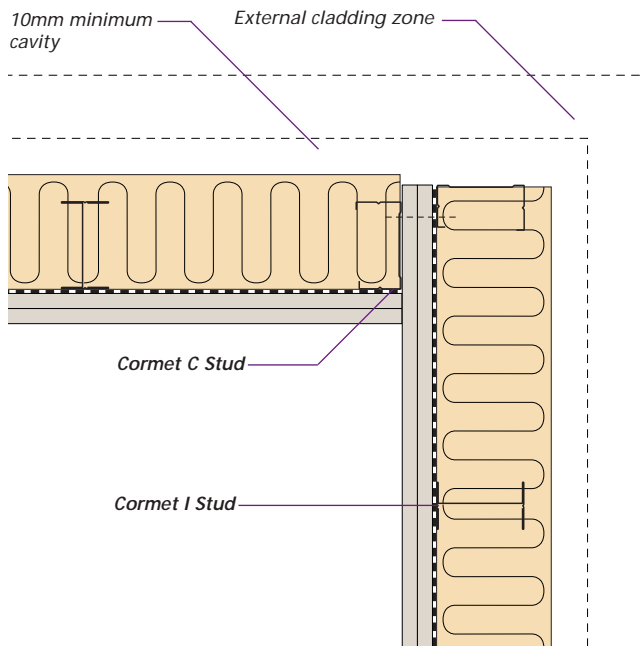
If sound insulation is required, apply a 6mm bead of **Lafarge Intumescent Acoustic Sealant** around the perimeter of the framing or the outer layer of wallboard.

For fixtures to linings see Section 8 Sitework, table 8.3.

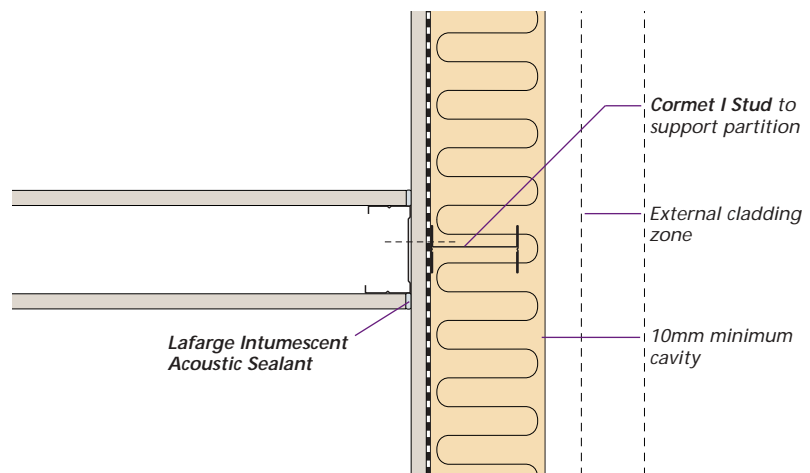


**Cormet  
Insulation  
Hold Strip**

### Internal corner

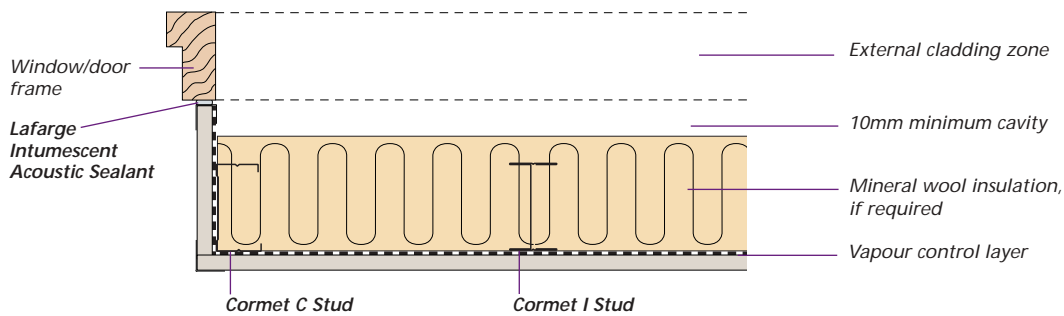


### Junction with partition

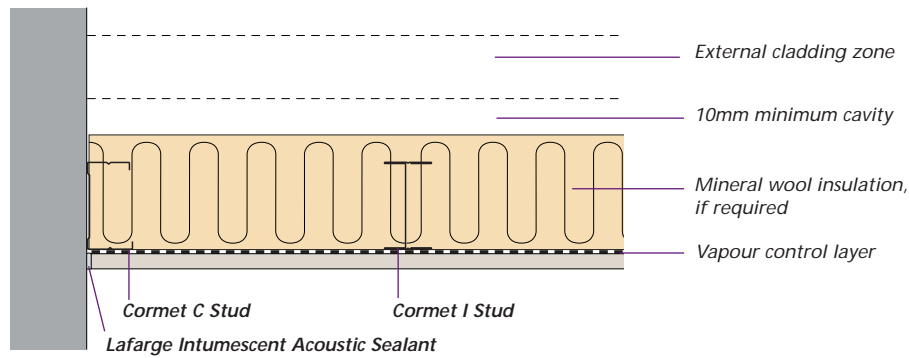


## Application details

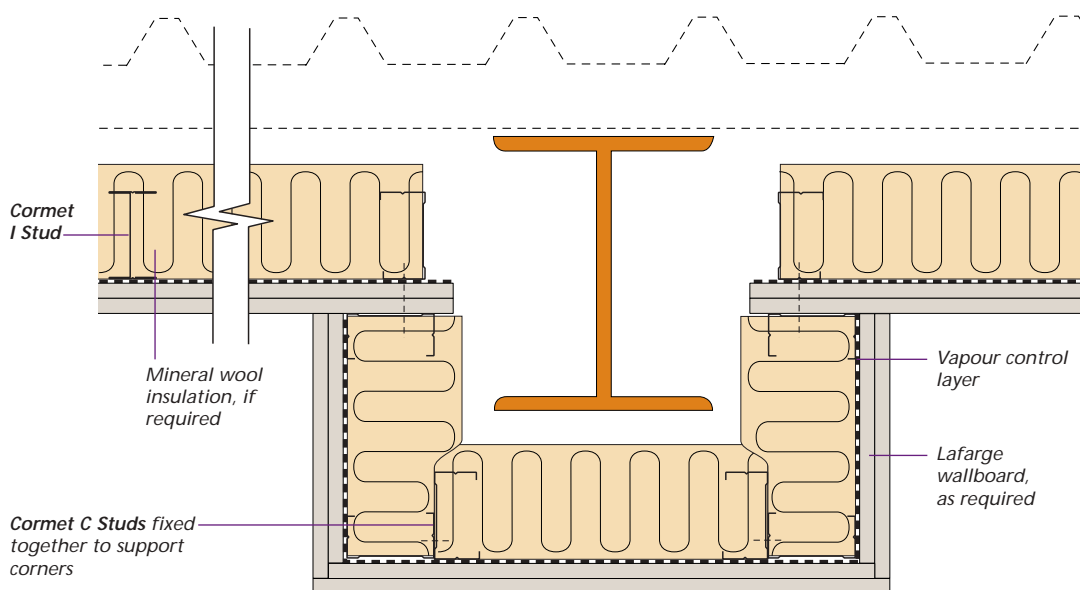
### Door or window reveal



### Wall abutment



### Lining around column



## Specification clauses

### Cormet Independent Wall Lining

#### Scope

Independent framing of **Cormet I Studs**, set away from the wall, lined with Lafarge plasterboards with insulation as required.

#### Additional clauses

Add general clauses (see Section 8) if required for:

- Expansion/movement joints
- Health and safety
- Storage of materials
- Site conditions and workmanship

#### NBS clauses

When using the NBS Specification, use clause K10 PLASTERBOARD DRY LININGS/PARTITIONS/CEILINGS.

The Lafarge Plasterboard website contains a full set of NBS clauses, completed for each Lafarge Plasterboard system. See: [www.lafargeplasterboard.co.uk/nbssearch/index.asp](http://www.lafargeplasterboard.co.uk/nbssearch/index.asp)



#### Notes:

Red text lists alternative product specifications.

*(Italic red text within brackets gives advice on selecting the information needed).*

#### System reference *(Insert Lafarge system reference from Performance Tables)*

**Location** .....

**Client reference** .....

#### Performance

Maximum height .....m

Fire rating .....mins *(dependent on background)*

Airborne insulation *(dependent on background)*

Thermal transmittance .....W/m<sup>2</sup>K *(dependent on background)*

Thickness *(dependent on background)*

#### Horizontal joints

Use **Cormet Fixing Strap FS50/R**, **FS90/W** or **Cormet Fixing Channel MFIX** if partition height exceeds board height.

#### Insulation

*(Specify insulation thickness and grade/density from the Performance Tables)*

#### Acoustic mastic

6mm bead of Lafarge Intumescent and Acoustic Sealant around perimeter of the framing.

#### Studs

Lafarge I studs, reference **IS50/R**, **IS60/B**, **IS70/B** or **IS90/B** at max **300**, **400** or **600mm** centres.

#### Floor and head track

Lafarge U Tracks, reference **UT52/R**, **UT62/R**, **UT72/R**, **UT92/R** or **UT148/R** fixed at max 600mm centres.

Lafarge U Track Deep, reference **UDT52/B**, **UDT62/B**, **UDT72/B** or **UDT92/B** or Lafarge Extra Deep U Track, reference **UXT72/B** or **UXT92/W** fixed at max 600mm centres. *(Deep or Extra Deep U Tracks to be specified when lining is over 4.2m high)*

#### Floor/head track fixings

Spit Pulsa 700P nailing system for concrete or steel using fixings dependent on material substrates at max 600mm centres

Standard concrete use Spit C6 Pins *(Select from 20, 25, 30, 35, 40)mm*, or

Hard concrete use Spit HC6 Pins *(Select from 17, 20, 22, 27)mm*, or

Steel use Spit SC6 Pins *(Select from 15, 20)mm*

Spit Hammer-In fixing for concrete at maximum 600mm centres

Type Spit Hit CL35 *(Select from 30, 40, 50)mm*

#### Boarding

**Single** or **double** layer of wallboard.

Inner layer *(Specify wallboard from the Performance Tables)*

Outer layer *(Specify wallboard from the Performance Tables)*

#### Board fixings

Lafarge screws at 300mm centres

Type **Drywall Self-tapping**, or **Drywall Self-drilling**, or **Toughcheck Self-tapping**, or **Toughcheck Self-drilling**, or **Checkpoint Self-tapping**, or **Megadeco Self-tapping**.

Length, inner layer *(Select from 25, 32, 38, 41, 44, 51, 57, 63, 67, 76)mm*

Length, outer layer *(Select from 25, 32, 38, 41, 44, 51, 57, 63, 67, 76)mm*

#### Finishing

**Lafarge Taping and jointing system**, or

**Lafarge Supreme Skim Plaster**, or

**Lafarge Predeco taping and jointing system**

#### Installation

All materials, unless otherwise indicated, shall be supplied by Lafarge Plasterboard Ltd. and shall be installed in accordance with their current literature and in accordance with BS 8212: 1995.

Given the vast selection of different types of substrate that are encountered on-site, it is strongly recommended that adequate site tests be carried out to establish a recommended load on fixings.

## Installation



*Note: If applying Cormet U Track directly to new concrete, the concrete must be dry and a damp-proofing membrane should be used. On uneven floors a timber sole plate may be required. Where sound insulation is critical, apply a bead of Lafarge Intumescent Acoustic Sealant under the sole plate.*

### Step one

Set out the system inside the wall; allow a minimum cavity width of 10mm between wall and back of metal framing, or to the insulation if thickness of insulation is greater than width of framing.

Fix Cormet U Track to timber or concrete floor at 600mm centres using suitable fixings.



### Step five

Using a disc cutter, drop-saw or angle grinder, cut Cormet I Studs to length (5mm shorter than the floor to soffit height) whilst they are in a pack. If ceiling or floor are very uneven, Cormet I Studs should be cut separately.



### Step two

Install Cormet C-Stud using a spirit level to plumb upright on end wall, and fix at 600mm centres using suitable fixings.



### Step six

Insert the stud into the floor and ceiling tracks and twist to lock. Position them at 300, 400 or 600mm centres for 1200mm wide plasterboard.

*Note 1: Arrange the framing so that board widths of less than 300mm are avoided. Use Cormet I Studs for the main run of the wall lining, with Cormet C Studs at stop ends, abutments, junctions, openings and corners.*

*Note 2: Insulation and any services should be installed prior to boarding.*



### Step three

Install ceiling Cormet U Track onto end wall Cormet C Stud, using a Cormet I Stud (as a temporary prop) and a spirit level. Plumb opposite end of ceiling Cormet U Track to align with floor Cormet U Track. Screw-fix ceiling Cormet U Track into position at 600mm centres or less.

*Note: If sound insulation is required, apply a 6mm bead of Lafarge Intumescent Acoustic Sealant around the perimeter of the framing or the outer layer of wallboard.*



### Step seven

Cut plasterboard 5mm shorter than the floor-to-soffit height, butt firmly against the ceiling and fix to the framing with Lafarge Drywall Screws at 300mm centres.

Align wallboards, leaving a nominal 3mm gap between each other and centre the edges over the studs.



### Step four

Fix opposite end of Cormet C Stud at 600mm centres using suitable fixings.

Installation details on Lafarge systems are also available in the Lafarge Installation Guide or online at:  
[www.lafargeplasterboard.co.uk](http://www.lafargeplasterboard.co.uk)





The popularity of **timber frame** housing calls for a fast, efficient lining solution. The use of plasterboard in these properties provides a ready means of meeting Building Regulations requirements in respect of sound, thermal and fire performance. These features have made drywall the preferred choice for timber frame constructions in markets ranging from volume housebuilders in Scotland to the self-build market countrywide.

Alternative fixing methods include nails, screws and the incorporation of **Cornet Resilient Bar** which helps compensate for any movement in the timber over time. The availability of **Thermalcheck**, **Vapourcheck**, **Toughcheck**, **Firecheck** and **dBcheck** boards, as well as the **Deco** system of colour-matched products, allows ready selection of the correct specification for each project.



2

### Introduction

#### Lafarge Drywall Linings: Timber Frame

In timber framed housing Lafarge plasterboard linings offer easy fixing to lightweight constructions.

The high strength and rigidity of Lafarge plasterboards make them suitable for use in the assembly of prefabricated panels which are braced with sheathing ply or similar. Their use also contributes to the excellent thermal and acoustic performance of timber framed systems as well as providing fire protection to the structure.

#### Performance

The selection of drylining system, insulation and boarding will depend on the wall height and the performance required for fire resistance, thermal and sound insulation: refer to performance tables 2.1 and 2.6.

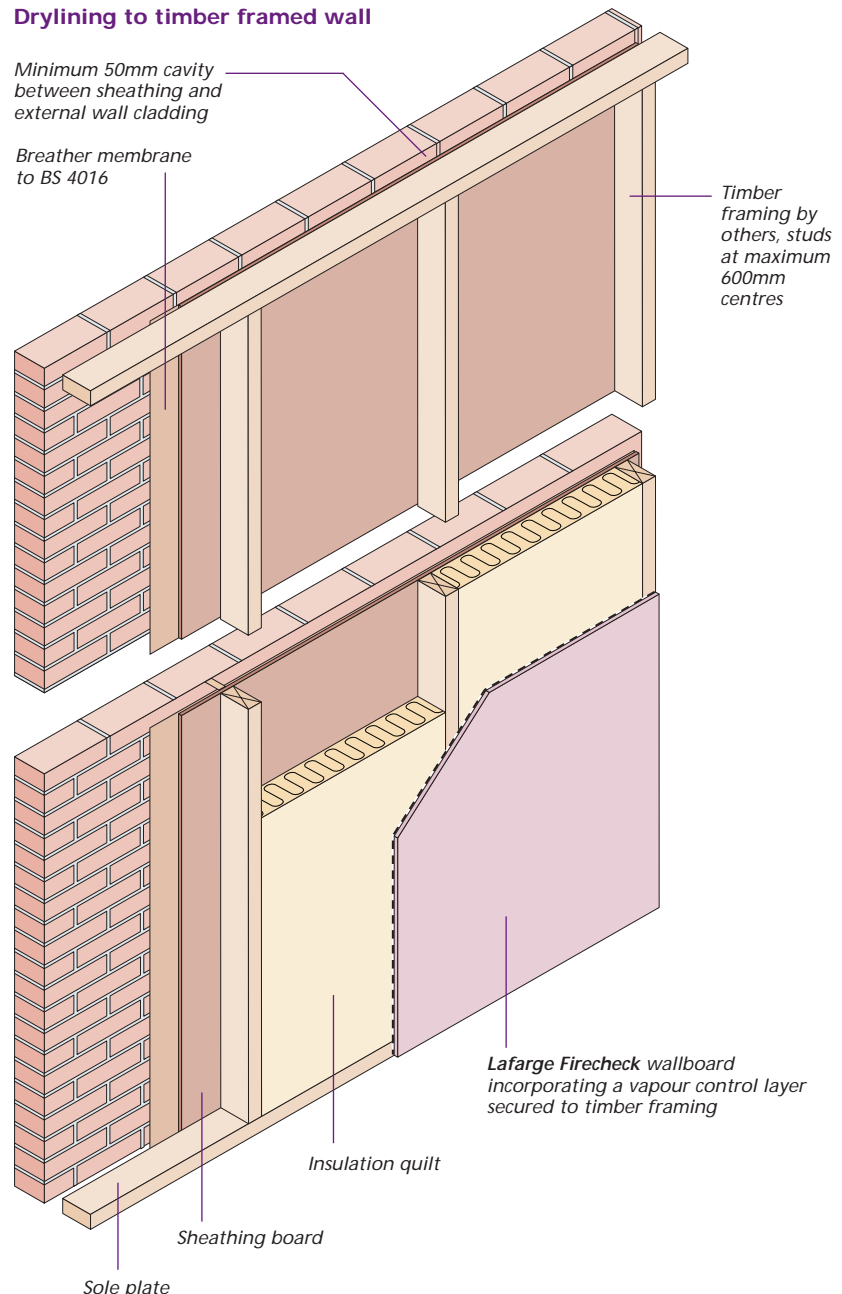
Lafarge plasterboards are defined as Class 0 in accordance with the National Building Regulations 1991 Approved Document B1/2/3/4/5 (Fire Safety) and Building Standards (Scotland) Regulations 1990, Regulation D2 when tested to BS 476: Part 6: 1989 and Part 7: 1987.

#### System components:

See section:

Boards	8
Compounds	
Screws	
Finishes	7

#### Drylining to timber framed wall





## Application details

### Components

The Lafarge components used in the lining of timber framed walls are described in table 2.13.

### System assembly

#### General construction

Typically, timber framed external walls have studs set out at 400mm or 600mm centres to maximise economical use of the lining materials. The external sheathing to the frame normally consists of 9mm structural plywood or other wood-based sheet material, protected from moisture by a breather paper to BS 4016: 1972. This serves to brace the timber frame.

Use 12.5mm Lafarge wallboard with a vapour control layer. This prevents interstitial condensation forming in the wall cavity.

#### Insulation

In all systems where rock mineral wool or glass mineral wool insulation is used, it should be supported using **Cormet Insulation Hold Strips** 150mm below the wall head and at 1200mm centres down the height of the wall. This will prevent the insulation from sagging over time, with consequent loss of thermal and acoustic performance.

#### Boarding

For internal linings, lightly butt plasterboard edges if a taped and jointed finish is required, leave a 2-3mm gap between the boards if a plaster finish is required. Fix the boards with **Lafarge Drywall High Thread Screws** at 300mm centres. Fixings should be no closer than 10mm to the bound edges and 13mm to the cut edges of the boards.

#### Internal partitions and separating walls

Refer to Timber Stud Partitions in Section 3.

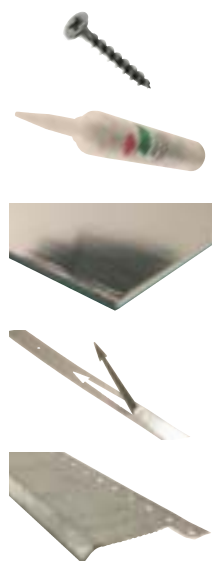
### Cormet Resilient Bars

Where the **Cormet Resilient Bar** is to be fixed to timber studs the following centres apply:

- 400mm centres for single layer boarding
- 600mm centres for double layer boarding

Fix initial **Cormet Resilient Bar** 50mm down from the ceiling, last bar 50mm from floor.

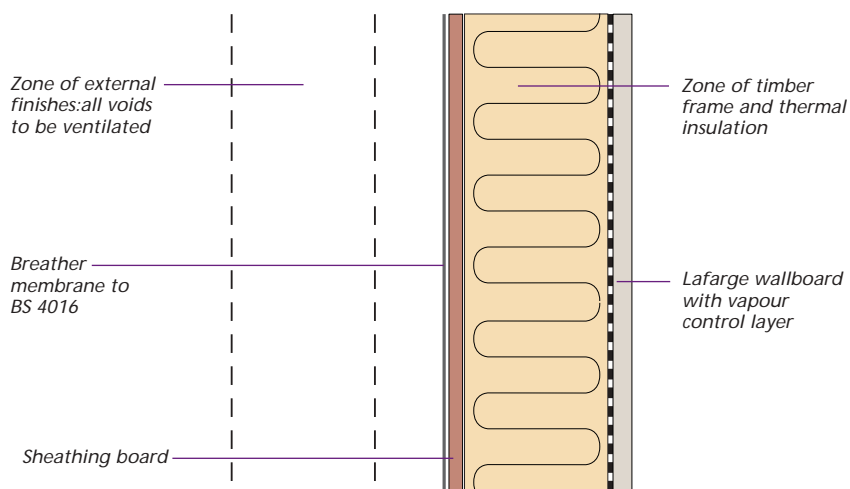
For fixing **Cormet Resilient Bar** to timber studs use 38mm **Lafarge High Thread Screws**.



**Table 2.13 Timber frame components**

Component	Use
Lafarge Drywall High Thread Screws	For fixing Resilient Bar and Lafarge wallboards to timber
Lafarge Intumescent Acoustic Sealant	To seal air gaps at board perimeters
Lafarge wallboard with vapour control layer	Most Lafarge wallboards can be ordered with a vapour control layer, specify Moisturecheck Vapourcheck for humid areas such as bathrooms
Cormet Insulation Hold	For securing mineral wool insulation quilt in place between timber studs
Cormet Resilient Bars	For improving the sound performance and minimising the risk of joints cracking due to timber movement during the drying out of the timber

### Lining to external wall



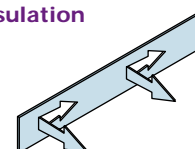
Screw fix the wallboard to the **Cormet Resilient Bar** only, ensuring the screw does not touch the metal substrate.

For screw lengths for fixing plasterboard to **Cormet Resilient Bars** see Table 2.14.

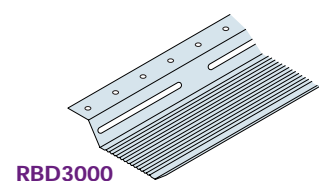
**Table 2.14 Recommended screw lengths for fixing plasterboard to Resilient Bars**

Plasterboard thickness (mm)	Screw length (mm)
12.5	25
15.0	25
19.0	32
12.5 + 12.5	38
19.0 + 12.5	44
15.0 + 15.0	44

### Cormet Insulation Hold Strip



### Cormet Resilient Bar



## Specification clauses

### Lafarge Linings to Timber Frame

#### Scope

For fixing plasterboard to structural timber framing which forms part of an external wall, with insulation between the timber studs as required.

#### Additional clauses

Add general clauses if required for:  
Expansion/movement joints  
Health and safety  
Storage of materials  
Site conditions and workmanship.

#### NBS clauses

When using the NBS Specification, use clause K10 PLASTERBOARD DRY LININGS/PARTITIONS/CEILINGS.

The Lafarge Plasterboard website contains a full set of NBS clauses, completed for each Lafarge Plasterboard system. See: [www.lafargeplasterboard.co.uk/nbssearch/index.asp](http://www.lafargeplasterboard.co.uk/nbssearch/index.asp)



#### Notes:

Red text lists alternative product specifications.

*(Italic red text within brackets gives advice on selecting the information needed).*

**System reference** *(Insert Lafarge system reference from Performance Tables)*

**Location** .....

**Client reference** .....

#### Performance

Maximum height .....m

Fire rating .....mins *(dependent on background)*

Airborne insulation *(dependent on background)*

Thermal transmittance .....W/m<sup>2</sup>K *(dependent on background)*

Thickness *(dependent on background)*

#### Horizontal joints

Use **Cormet Fixing Strap FS50/R, FS90/W** or **Cormet Fixing Channel MFIX**, if lining exceeds the board height.

#### Insulation

*(Specify insulation thickness and grade/density from the Performance Tables)*

#### Acoustic mastic

6mm bead of Lafarge Intumescent Acoustic Sealant around perimeter of the framing.

#### Framing

Timber framing by others.

Cormet Resilient Bar RBD3000, if required.

#### Boarding

**Single** or **double** layer of wallboard.

Inner layer *(Specify wallboard from the Performance Tables)*

Outer layer *(Specify wallboard from the Performance Tables)*

#### Board fixings

Lafarge screws at 300mm centres

Type, Drywall High Thread.

Length, inner layer *(Select from 32, 38, 41, 51, 63, 76)mm*

Length, outer layer *(Select from 32, 38, 41, 51, 63, 76)mm*

#### Finishing

**Lafarge Taping and Jointing system**, or

**Lafarge Supreme Skim Plaster**, or

**Lafarge Predeco taping and jointing system**

#### Installation

All materials, unless otherwise indicated, shall be supplied by Lafarge Plasterboard Ltd. and shall be installed in accordance with their current literature and in accordance with BS 8212: 1995.



Steel frame housing calls for a fast, efficient lining solution. The use of plasterboard in these properties provides a ready means of meeting Building Regulations requirements in respect of sound, thermal and fire performance. These features have made drywall the preferred choice for steel frame housing.



2



### Introduction

#### Framed Constructions

The drywall principles in all framed constructions are largely similar, with wallboard providing a non-structural finish to the framework.

#### Thermal Performance

In general the lighter framed construction heat up or cool down quicker than wet constructions allowing greater heating flexibility. Framed constructions are easy to insulate and often exceed current Building Regulations.

#### Sound Insulation

A key factor in sound reduction between rooms is a change in path of acoustic energy (plasterboard, air, insulation and plasterboard). The best performing partitions are metal stud with multi-layers of wallboard and mineral wool insulation within the cavity.

#### Cold formed steel

Building in steel has been popular in the USA and South Africa for some time and recently has been the subject of much interest in the UK and Ireland. The steel framework works in a similar way to timber, but introduces repeatability and a greater level of consistency to the construction process.

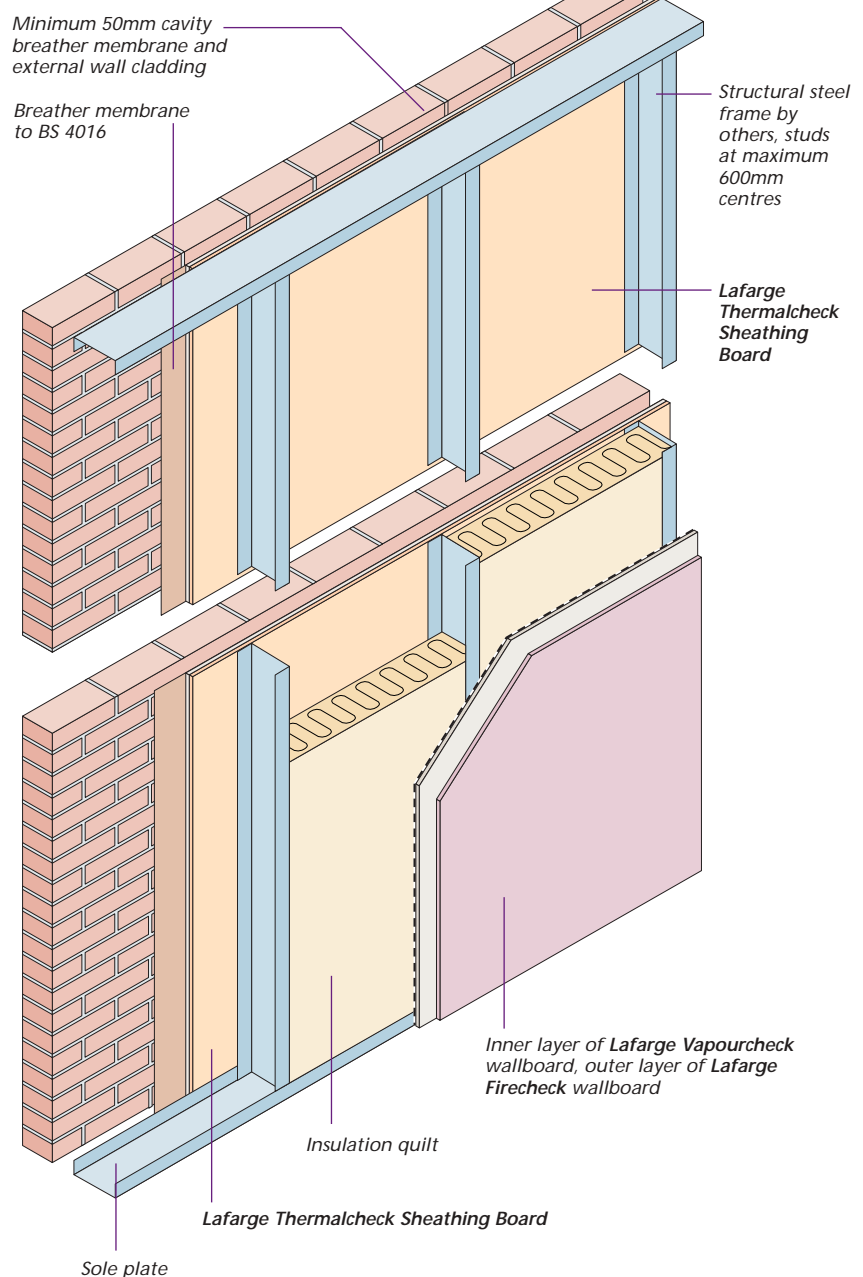
#### 'Modular'

Often used for building fast food outlets, student accommodation, hotel rooms and bathroom 'pods' modular building is growing fast and in a number of cases has been used for residential building. This has led to specific wallboard requirements.

#### Hot rolled structural steel

Techniques used to build offices and multi-storey buildings are also used in building apartment blocks. Hot rolled I section steel with concrete and steel floors can be assembled quickly in areas where space is a constraint. Build costs can be significantly lowered through the use of lightweight metal stud partitions. The benefits of lightweight construction are that they improve acoustic and fire performance as well as speed of installation.

#### Drylining to steel framed wall



## Application details

### Components

The Lafarge components used in the lining of steel framed walls are described in table 2.15.

### System assembly

#### General construction

Typically, steel framed external walls have studs set out at 400mm or 600mm centres to maximise economical use of the lining materials. The external sheathing to the frame normally consists of 25mm **Lafarge Thermalcheck Sheathing Board**, protected externally by a breather membrane to BS 4016: 1972.

Internally, use 12.5mm **Lafarge Vapourcheck** and **Lafarge Firecheck** wallboards. The vapour control layer in **Lafarge Vapourcheck** prevents interstitial condensation forming in the wall cavity.

#### Insulation

In all systems where rock or glass mineral wool insulation is used, it should be supported using **Cormet Insulation Hold Strips** 150mm below the wall head and at 1200mm centres down the height of the wall. This will prevent the insulation from sagging over time, with consequent loss of thermal and acoustic performance.

#### Boarding

For internal linings, lightly butt plasterboard edges if a taped and jointed finish is required, leave a 2-3mm gap between the boards if a plaster finish is required. Fix the boards with **Lafarge Self Drilling Screws** at 300mm centres. Fixings should be no closer than 10mm to the bound edges and 13mm to the cut edges of the boards.

#### Internal partitions and separating walls

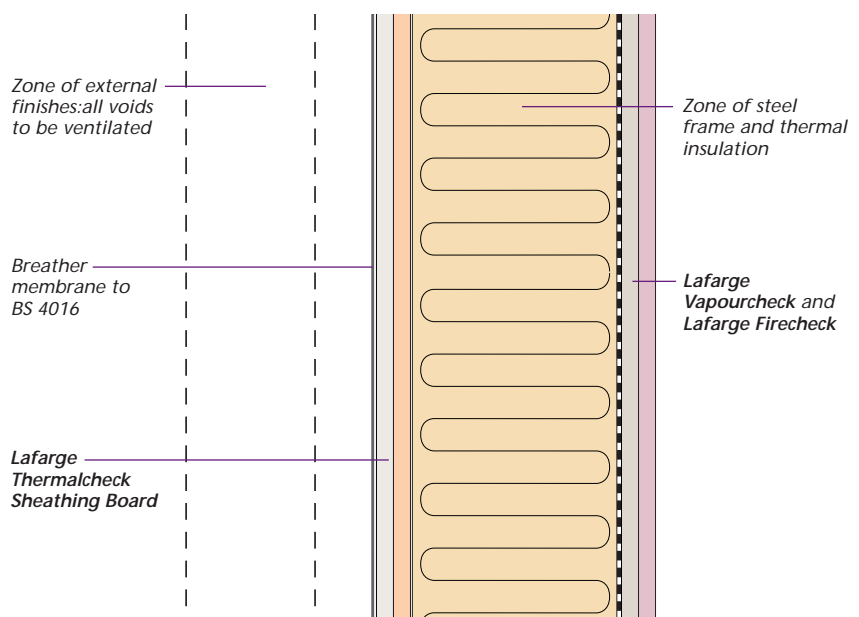
Refer to **Cormet Metal Stud Partitions** and **Cormet Twin Walls** in Section 3.



**Table 2.15 Steel frame components**

Component	Use
Lafarge Self Drilling Screws	For fixing Resilient Bar and Lafarge wallboards to steel frame
Lafarge Intumescent Acoustic Sealant	To seal air gaps at board perimeters
Cormet Insulation Hold	For securing mineral wool insulation quilt in place between timber studs
Cormet Resilient Bars	For improving the sound performance and minimising the risk of joints cracking due to timber movement during the drying out of the timber
Lafarge wallboard with vapour control layer	Most Lafarge wallboards can be ordered with a vapour control layer, specify Moisturecheck Vapourcheck for humid areas such as bathrooms
Lafarge Thermalcheck Sheathing Board	To provide sheathing on the cold side of the steel frame
Lafarge Firecheck wallboard	To provide a high level of fire resistance to protect the steel frame

#### Lining to external wall





### Specification clauses

#### Lafarge Linings to Structural Steel Frame

##### Scope

For fixing plasterboard to structural steel framing which forms part of an external wall, with insulation between the steel studs as required.

##### Additional clauses

Add general clauses if required for:

Expansion/movement joints

Health and safety

Storage of materials

Site conditions and workmanship.

##### NBS clauses

When using the NBS Specification, use clause K10 PLASTERBOARD DRY LININGS/PARTITIONS/CEILINGS.

The Lafarge Plasterboard website contains a full set of NBS clauses, completed for each Lafarge Plasterboard system. See: [www.lafargeplasterboard.co.uk/nbssearch/index.asp](http://www.lafargeplasterboard.co.uk/nbssearch/index.asp)



##### Notes:

Red text lists alternative product specifications.

*(Italic red text within brackets gives advice on selecting the information needed).*

**System reference** *(Insert Lafarge system reference from Performance Tables)*

**Location** .....

**Client reference** .....

##### Performance

Maximum height .....m

Fire rating .....mins *(dependent on background)*

Airborne insulation *(dependent on background)*

Thermal transmittance .....W/m<sup>2</sup>K *(dependent on background)*

Thickness *(dependent on background)*

##### Horizontal joints

Use **Cormet Fixing Strap FS50/R**, **FS90/W** or **Cormet Fixing Channel MFIX**, if lining exceeds the board height.

##### Insulation

*(Specify insulation thickness and grade/density from the Performance Tables)*

##### Acoustic mastic

6mm bead of Lafarge Intumescent Acoustic Sealant around perimeter of the framing.

##### Framing

Steel framing by others.

##### Boarding (internal)

**Single** or **double** layer of wallboard.

Inner layer *(Specify wallboard from the Performance Tables)*

Outer layer *(Specify wallboard from the Performance Tables)*

##### Boarding (external)

25mm Lafarge Thermal Sheathing Board.

Protected by breather membrane, type ..... by .....

##### Board fixings

Lafarge self drilling screws at 300mm centres

Type, Drywall Self Drilling.

Length, inner layer *(Select from 25, 32, 38, 41, 44, 67)mm*

Length, outer layer *(Select from 25, 32, 38, 41, 44, 67)mm*

##### Finishing

Lafarge Taping and Jointing system, or

Lafarge Supreme Skim Plaster, or

Lafarge Predeco taping and jointing system

##### Installation

All materials, unless otherwise indicated, shall be supplied by Lafarge Plasterboard Ltd. and shall be installed in accordance with their current literature and in accordance with BS 8212: 1995.





Slim, 6mm Lafarge Contour board offers an ideal, cost-effective means of covering up old tiles in kitchens and bathrooms. Fixed with drywall adhesive, installation takes up a total depth of just 8mm. This is a faster solution than skim plastering for renovation projects and, provided the substrate is sound, avoids the need to remove tiled finishes prior to construction.



2



Introduction

Lafarge Contour Linings

Lafarge Contour linings offer a fast and efficient method of lining unsightly walls and ceilings. It is especially useful in renovation work where a drywall solution to distressed plasterwork or tiling is required.

Lafarge Contour wallboard is only 6mm thick, so a modern flat surface can be achieved, whilst only increasing wall thickness by 8mm. Because it is a system for resurfacing old walls it is not necessary to remove old mortar or plaster that is still firmly attached. The lining can be jointed 12 hours after application.

In addition, it is possible to upgrade the thermal performance of older buildings by using Drywall Adhesive to fix Lafarge Thermalcheck wallboards.

Components

The components used in the Lafarge Contour lining system are listed in table 2.16.

Limitations

Lafarge Drywall Adhesive is a thin bed adhesive and should not be used more than 2mm thick.

System components:

See section:

Boards	8
Compounds	
Screws	
Finishes	7

Adhesive application

Lafarge Drywall Adhesive (RDA5) dabs approx. 25x25mm at 300mm centres

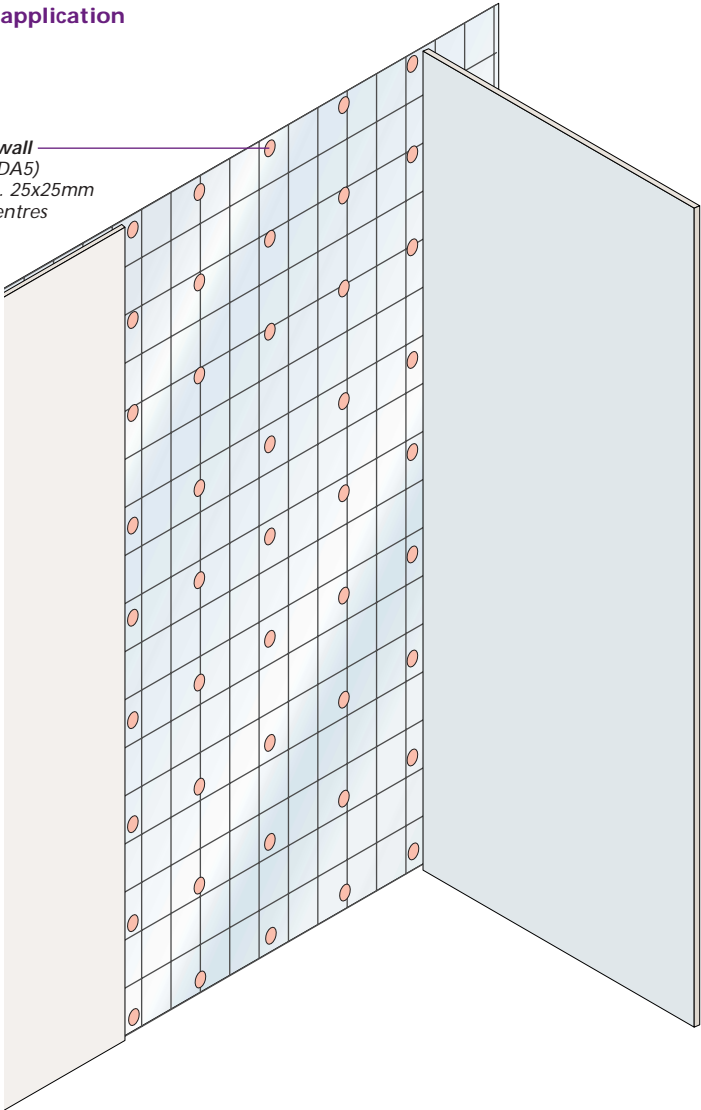
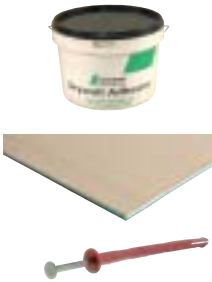


Table 2.16 Lafarge Contour components

Component	Use	Reference
Lafarge Drywall Adhesive	An Acrylic compound with fillers for fixing Lafarge Wallboard to metal, ceramic tiles, timber, plaster, plasterboard and suitably treated sound backgrounds	RDA5
Lafarge Contour Wallboard		X2
Lafarge Nailable Plugs		NP60, NP80 NP110



## Application details

### System assembly

**Lafarge Contour** wallboard can be fixed to most flat and level backgrounds by direct bonding with **Lafarge Drywall Adhesive**. The only preparation required is to provide a mechanical key for the adhesive. Loose plaster and wallpaper must be removed. Ceramic tiles must be clean and free from contamination.

If background is excessively dusty or of a high suction, seal with a PVAC bonding agent, applied in accordance with manufacturer's instructions.

Ensure that the background has no protruding high points which may perforate the plasterboard.

### Adhesive application

Apply thin dabs of **Lafarge Drywall Adhesive** to the background at 300mm centres. Dabs should be approximately 25mm x 25mm and about 25mm in from the board edges.

### Boarding

Start boarding from an internal angle. Press the grey face of the plasterboard firmly against the dabs, checking that it is true and vertical. Fit the board tight against the ceiling and temporarily wedge the bottom edge in position and leave it to set.

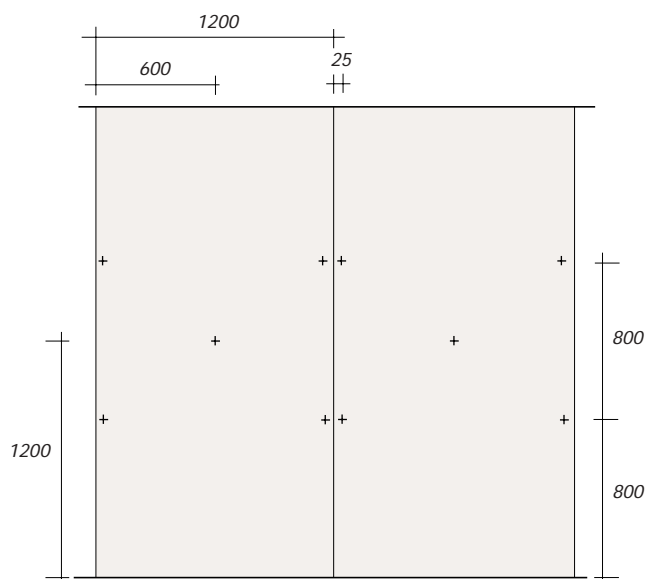
Drill five 6mm diameter holes through the plasterboard and into the masonry, as shown. Insert 60mm **Lafarge Nailable Plugs** and carefully drive them just below the plasterboard surface.

### Jointing

Allow twelve hours for the **Lafarge Drywall Adhesive** to set before jointing.

All joints should be taped and filled in accordance with Lafarge Plasterboard's instructions.

### Nailable Plug fixing arrangement



## Specification clauses

### Lafarge Contour Linings

#### Scope

The direct bonding of Lafarge Contour wallboard to masonry on concrete, sound plaster and glazed tile backgrounds using Lafarge Drywall Adhesive.

#### Exclusions

The specification shall not be used where backgrounds are subject to damp and where the background is more than 2mm out of level.

#### Additional clauses

Add general clauses if required for:  
Expansion/movement joints  
Health and safety  
Storage of materials  
Site conditions and workmanship.

#### NBS clauses

When using the NBS Specification, use clause K10 PLASTERBOARD DRY LININGS/PARTITIONS/CEILINGS.

The Lafarge Plasterboard website contains a full set of NBS clauses, completed for each Lafarge Plasterboard system. See:  
[www.lafargeplasterboard.co.uk/nbssearch/index.asp](http://www.lafargeplasterboard.co.uk/nbssearch/index.asp)

**NBSPlus**

#### Notes:

Red text lists alternative product specifications.

*(Italic red text within brackets gives advice on selecting the information needed).*

**Location** .....

**Client reference** .....

#### Performance

Maximum height .....m

Design thickness 8mm max.

#### Background

The background shall be free from dust, dirt, grease and must be dry. Any mould or source of damp penetration shall be traced and remedied prior to drylining.

#### Adhesive application

Apply Lafarge Drywall Adhesive in 25mm daubs at 300mm horizontal and vertical centres. Finished daub thickness is 2mm

#### Boarding

Single layer of Lafarge Contour wallboard.

#### Secondary mechanical fixing

5 No Lafarge Nailable Plugs, length 60mm, shall be installed in accordance with Lafarge Plasterboard's instructions.

#### Finishing

Lafarge Taping and jointing system, or

Lafarge Supreme Skim Plaster, or

Lafarge Predeco taping and jointing system

#### Installation

All materials, unless otherwise indicated, shall be supplied by Lafarge Plasterboard Ltd. and shall be installed in accordance with their current literature and in accordance with BS 8212: 1995

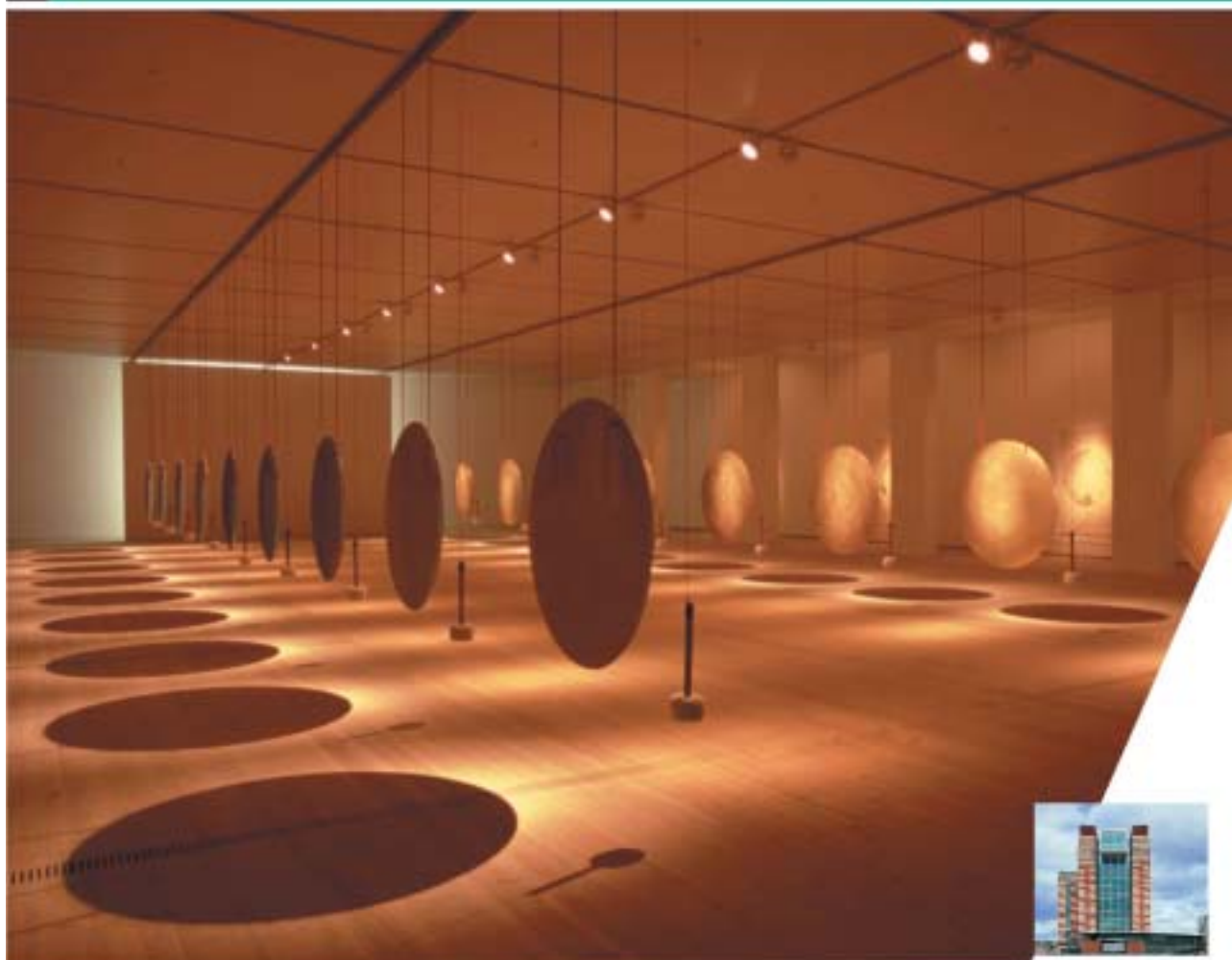
## Lining Solutions

### Items to check

	Yes (✓)	No (✓)	Date completed
1. Are the dabs for the wallboard lining continuous at the wall perimeter? <i>This helps to seal airpaths behind the wallboard.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
2. Are there continuous dabs of plaster around socket outlets? <i>This helps to seal airpaths behind the wallboard.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
3. Is the gap at the base of the wallboard filled with Lafarge Intumescent Acoustic Sealant? <i>If left unfilled, this will be a weak point for air to pass through.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
4. Is the thermal lining the correct insulation type and thickness? <i>The different types of insulation vary significantly in performance. Installing the wrong type and thickness could seriously increase heat loss.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
5. Are there mechanical fixings securing the Lafarge Thermalcheck wallboards in place? <i>The boards may detach from their background if the fixings are omitted</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
6. Where mineral wool is installed between studs, is it the correct thickness?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
7. Where mineral wool is installed between studs, is it free from gaps?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>

## Case study

### Baltic Centre for Contemporary Art



*Baltic Flour Mill was originally a grain store but has now been converted into a stunning gallery for contemporary art. Drywall systems make a very significant contribution to the clean, airy spaces of the interior as well as offering many practical benefits. The impressive gallery spaces, in places rising to heights of 10 metres and more, are lined with Megadeco board which is used in conjunction with load-bearing metal studs and a plywood inner layer. The plywood 'background' provides the additional strength needed to carry heavier exhibits, whilst the Megadeco facing combines fire and acoustic performance with a tough, impact resistant finish.*



**Client:** Gateshead Council

**Architect:** Ellis Williams

**Drywall contractor:** Barts

**Main contractor:** HBG Construction

**LAFARGE**  
PLASTERBOARD  
**MEGADECO**