CREATIVE SOLUTIONS

6

Contents

Lafarge Fresco

Lafarge Fresco raised panel wallboards allow the traditional appearance of panelled walls and ceilings to be achieved economically with normal drylining techniques.

Lafarge Fresco panels can be installed on timber or Cormet metal framing in a similar way to standard plasterboard. They can also be direct bonded to sound, dry backgrounds.

Lafarge Cove

Lafarge Cove is a simple and cost effective way of adding attractive and distinctive features to the wall and ceiling junction. Designed for internal use **Lafarge Cove** can complement many room styles.

Lafarge Profiles

The **Lafarge Profile** range of architectural design products allows features once only possible with wet plaster and costly one-off components to be achieved quickly and economically.

The **Lafarge Profiles** range enables the designer to use plasterboard in new and more imaginative ways.

Lafarge Shadowline Profiles provide many opportunities for the introduction of relief and articulation to wall and ceiling surfaces.

A softer approach is possible with **Lafarge Softform Profiles** to create smooth curves.

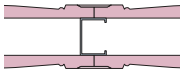
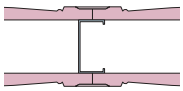
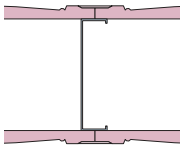
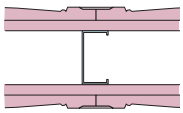
Contour Walls

Curved wall surfaces, which once required time-consuming wet plaster technology or expensive fibrous plaster mouldings, can now be formed with quick and inexpensive Lafarge drywall systems. Utilising the *drywall advantage* it is now possible to create high quality curved plaster forms with standard wallboards and at the same time meet tight time and cost restraints.

System selection

			Lafarge Fresco	Lafarge Cove	Lafarge Profiles	Contour walls
Selection criteria:						
Overall Width	mm	82 – 178	–	–	–	
Fire Resistance	minutes	60 – 120	–	–	–	
Maximum Height	mm	6200	–	–	–	
Sound Resistance	dB	39 – 46	–	–	–	
Weight	kg/m²	27 – 49	–	–	–	
Common application areas:						
Residential:	New Housing		■	■	■	■
	Flats		■	■	■	■
	Renovation		■	■	■	■
Commercial:	Offices		■	–	■	■
	Entertainment		■	–	■	■
	Institutional		■	–	■	■
	Shops		■	–	■	■
Industrial:	Factories		–	–	–	–
	Warehouses		–	–	–	–
Specials:	Cinemas		–	–	■	■
	Hospitals		–	■	■	■

Table 6.1 Typical Lafarge Fresco systems: Cormet Metal Stud partitions

System reference	Specification	Weight (kg/m²)	Maximum height (m)*	Nominal thickness (mm)	Fire resistance (minutes) to BS 476, and BS EN 1364	Sound insulation (R_w dB)
FCP 01 	**Studs:** 50mm **Cormet C Stud** (CS50/R) at 400mm centres **Facings:** one layer **Lafarge Fresco** wallboard both sides	27	2.7	82	30 30	37
FCP 02 	**Studs:** 70mm **Cormet C Stud** (CS70/R) at 400mm centres **Facings:** one layer **Lafarge Fresco** wallboard both sides	29	3.8	102	30 30	38
FCP 03 	**Studs:** 146mm **Cormet C Stud** (CS146/R) at 400mm centres **Facings:** one layer **Lafarge Fresco** wallboard both sides	30	6.2	178	30 30	41
FCP 04 	**Studs:** 70mm **Cormet C Stud** (CS70/R) at 400mm centres **Facings:** inner layer 12.5mm **Lafarge Firecheck** wallboard, outer layer **Lafarge Fresco** wallboard both sides	49	4.6	127	120 90	48

The values shown above are for imperforate systems utilising taper edge plasterboard with all joints taped and filled and systems installed in accordance with the recommendations of Lafarge Plasterboard Ltd. The quoted performance can only be achieved by the use of Lafarge components throughout. Any variation should be referred to the Lafarge Technical Enquiryline for confirmation of acceptance.

CREATIVE SOLUTIONS

Table 6.2 Typical Lafarge Fresco systems: Timber stud partitions

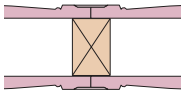
System reference	Specification	Weight (kg/m²)	Maximum height (m)*	Nominal thickness (mm)	Fire resistance (minutes) to BS 476, and BS EN 1364	Sound insulation (dB) R_w
FTP 01 	**Timber studs:** 63 x 38mm at 400mm centres **Facings:** one layer **Lafarge Fresco** wallboard both sides	31	3.0	107	30 30	38

Table 6.3 Typical Lafarge Fresco systems: Ceiling to timber floor

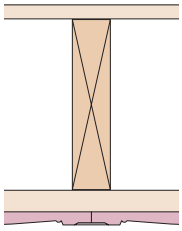
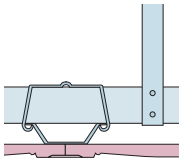
		Weight (kg/m²)	Fire resistance (minutes) to BS 476, and BS EN 1365	Sound insulation airborne (dB) R_w	Sound insulation impact (dB) L_{nw}
FTC 01 	**Flooring:** minimum 18mm timber or T&G chipboard **Joists:** 47 x 200mm at 600mm centres **Facings:** one layer **Lafarge Fresco Ceiling Panel** on timber battens at 400mm centres	37	30 30	38	78

Table 6.4 Typical Lafarge Fresco systems: Cormet Metal Furring Ceilings

		Weight (kg/m²)	Fire resistance (minutes) to BS 476
FCE 01 	**Ceiling:** one layer **Lafarge Fresco Ceiling Panel** on **Cormet Ceiling Channel** at 400mm centres	15	30

The values shown above are for imperforate systems utilising taper edge plasterboard with all joints taped and filled and systems installed in accordance with the recommendations of Lafarge Plasterboard Ltd. The quoted performance can only be achieved by the use of Lafarge components throughout. Any variation should be referred to the Lafarge Technical Enquiryline for confirmation of acceptance.

Lafarge Fresco allows the appearance of traditional timber panelling to be re-created with ease, using modern drywall materials.

Available for walls, stairwells and ceilings, **Lafarge Fresco** can be installed as quickly and efficiently as other drywall boards, allowing stunning effects to be achieved at realistic cost.

The boards can be decorated to mimic timber, or painted and can also accept a range of special decorative effects.

Introduction

Lafarge Fresco

Lafarge Fresco raised panel wallboards allow the traditional appearance of panelled walls and ceilings to be achieved economically with normal drylining techniques.

They can be used for both housing and commercial buildings in new and refurbishment work, as a wall and ceiling lining or as a partition facing (on one or both sides).

Lafarge Fresco panels can be installed on timber or **Cormet Metal Framing** in a similar way to standard plasterboard. They can also be direct bonded to sound, dry backgrounds.

Composition

Lafarge Fresco is produced using a unique plasterboard manufacturing process. The plaster core contains glass fibres and fillers.

Authority

Lafarge Fresco plasterboard complies with BS 1230: Part 1: 1985 for Type 5 gypsum wallboard.

Appearance

The sculptured face of **Lafarge Fresco** panels has a pink liner paper suitable for direct decoration. **Lafarge Fresco** can be used with Lafarge Drywall jointing systems to provide a continuous panelled effect with a smooth seamless finish that will accept a range of paint finishes.

Performance

Lafarge Fresco has fire resistant and sound insulation properties equivalent to 12.5mm **Lafarge Firecheck** wallboard and can be substituted directly for it in Lafarge Drywall systems.

Thermal insulation

Thermal conductivity (λ) is 0.25 W/mK. Thermal resistance (R) value is 0.050 m^2K/W.

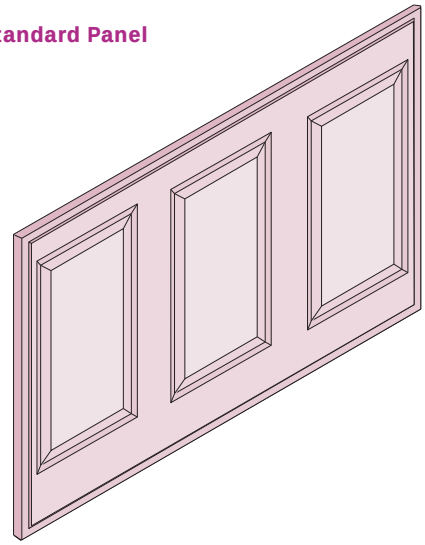
Range

There are four **Lafarge Fresco** panels available in two panel designs, as shown in Table 6.5.

Standard Fresco boards are designed for use in housing and small room areas in retail and commercial buildings.

Fresco Grand boards have a bigger panel imprint for lining larger wall surfaces, such as hotel corridors and reception areas.

Fresco Standard Panel



Fresco Grand Ceiling Panel

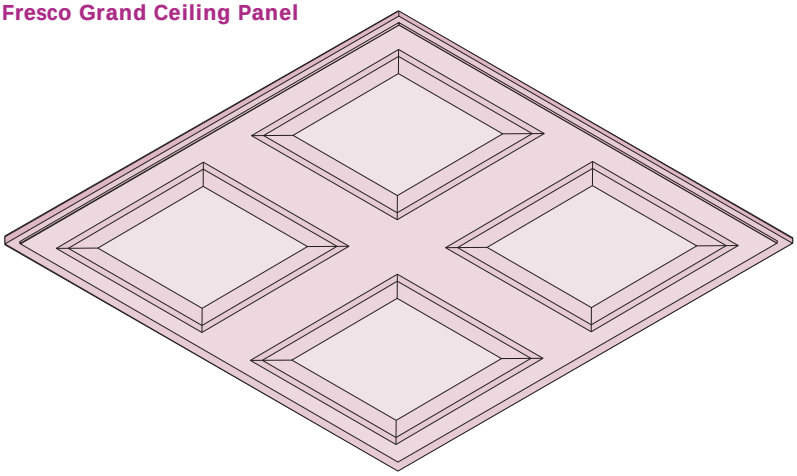


Table 6.5 Fresco range

	Standard Fresco	Fresco Grand
Wainscot Panel	✓	✓
Mainwall Panel	✓	✓
Ceiling Panel	✓	✓
Stairwall Panel	✓	

Components

Fresco Wainscot Panel

Wainscot Panels are designed for use along the lower part of a wall between the floor and a chair rail or dado rail. They can also be used one above the other to cover the whole wall height.

Wainscot Panels are available in **Fresco Standard** and **Fresco Grand** design patterns.

Fresco Mainwall Panel

Mainwall Panels are designed for use above **Wainscot**. Boards can also be used one above the other to cover the whole wall where ceiling heights permit.

Mainwall Panels are available in **Fresco Standard** and **Fresco Grand** design patterns.

Fresco Ceiling Panel

Ceiling Panel boards can be butt jointed to form a continuous panelled ceiling.

Ceiling Panels are available in **Fresco Standard** and **Fresco Grand** design patterns.

Fresco Stairwall Panel

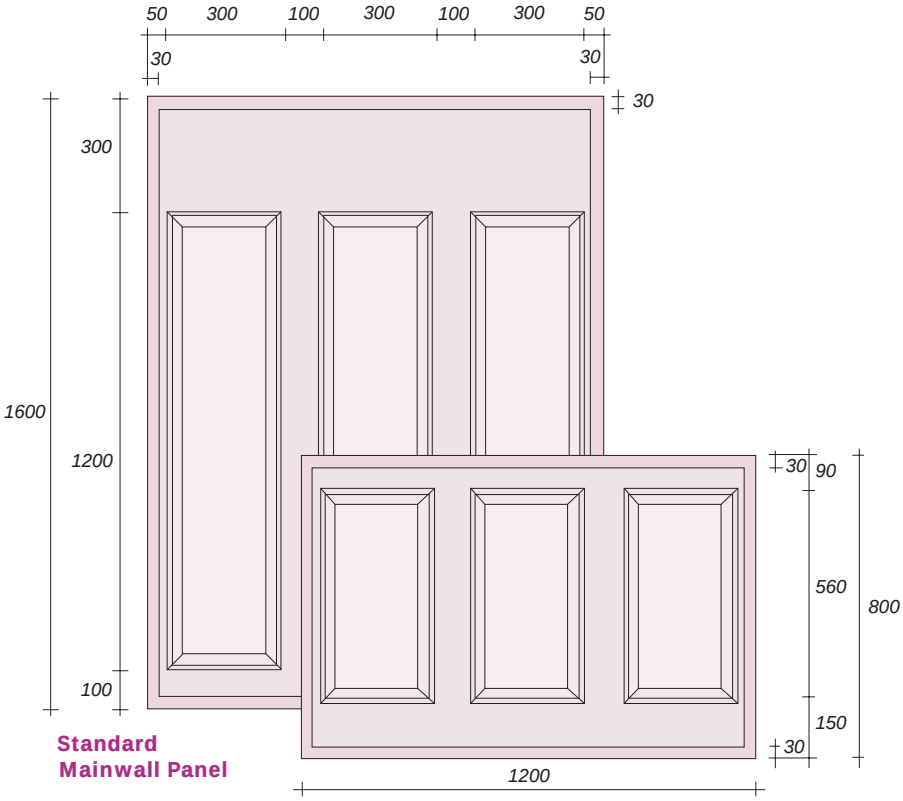
Fresco Stairwall Panel enables **Fresco** panelling to continue up the stairs. The panel is ideal for both new build and refurbishment applications.

Fresco Stairwall Panel is 400mm x 1300mm and easily adjusts to any stair angle up to 42º. The panels have a recess on both long edges to allow for easy jointing.

Stairwall Panels are not available in **Fresco Grand** pattern.

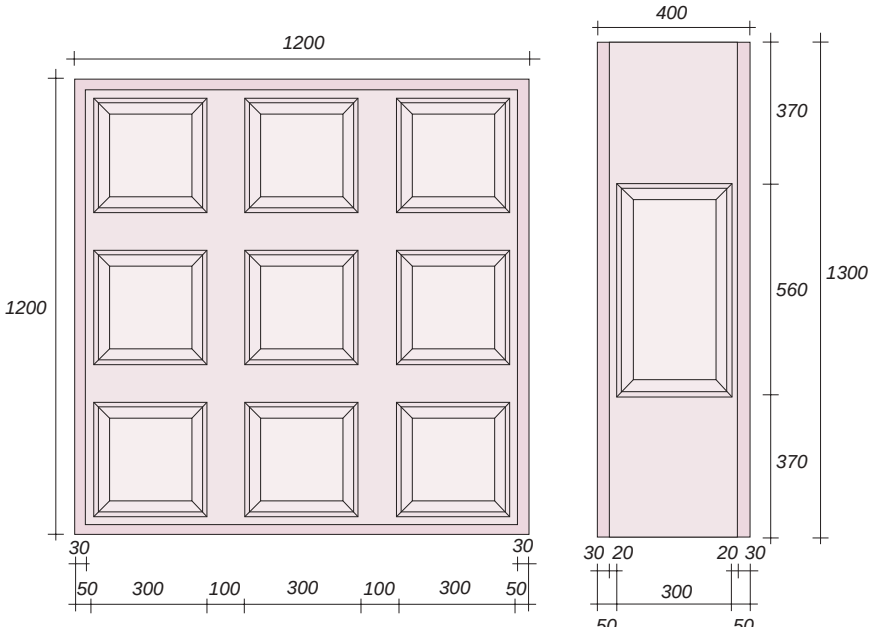
All dimensions in mm
Scale 1: 20

Lafarge Standard Fresco Panel range



Standard Mainwall Panel

Standard Wainscot Panel



Standard Ceiling Panel

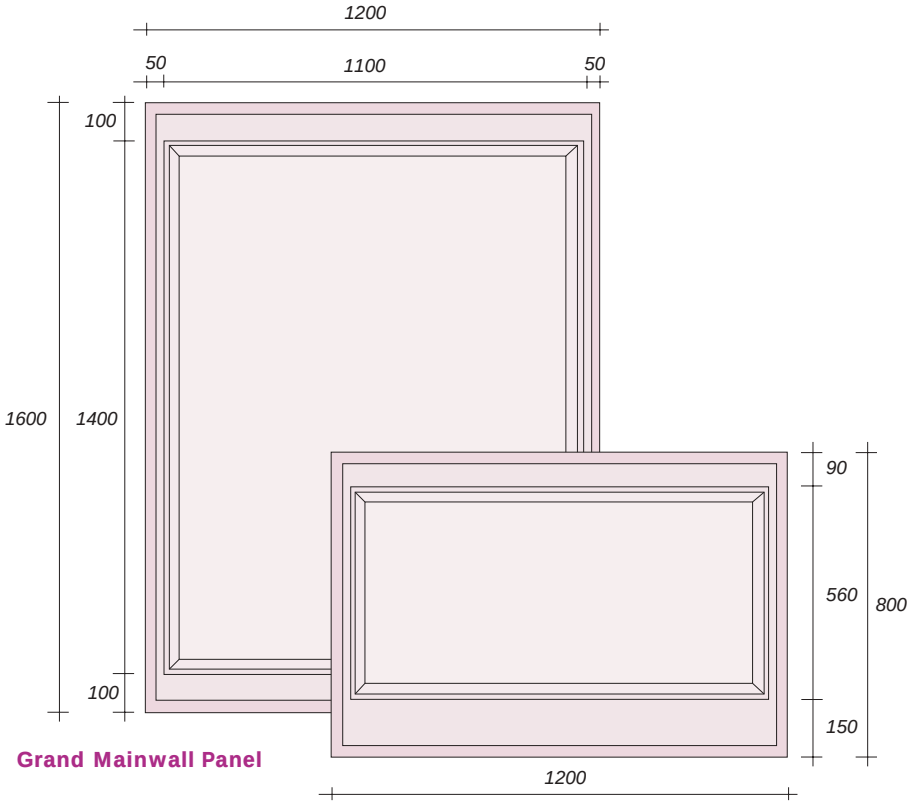
Stairwall Panel

Table 6.6 Board sizes

Pattern	Length (mm)	Width (mm)	Thickness (mm)
Wainscot Panel	800	1200	15
Mainwall Panel	1600	1200	15
Ceiling Panel	1200	1200	15
Stairwall Panel	1300	400	15

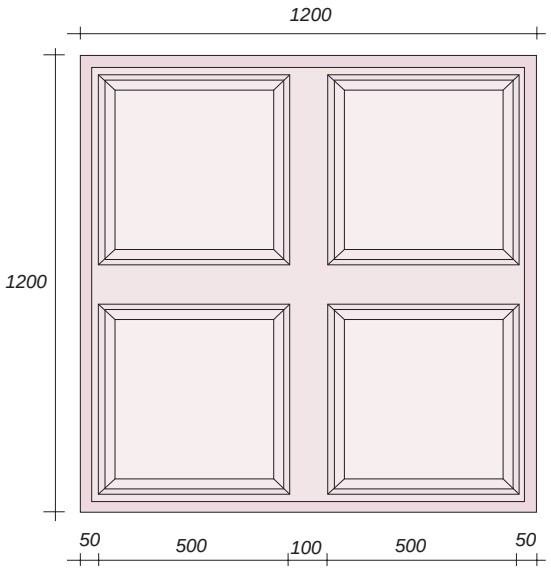
Components

Lafarge Fresco Grand Panel range



Grand Mainwall Panel

Grand Wainscot Panel



Grand Ceiling Panel

All dimensions in mm
Scale 1: 20

Application details

Setting out and planning

Careful planning at setting out stage can result in savings in both time and materials during installation.

Except where the panelling is to be installed in simple rectangular areas with no interruptions, it is recommended that a detailed dimensioned layout is prepared for each installation.

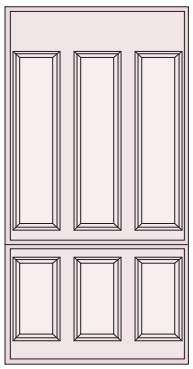
Wall layouts

Wherever possible, the location of features such as doors, windows, radiators etc. should be planned to suit the setting out of the **Lafarge Fresco** panels. Fixtures, and items such as electrical socket outlets, switches, television and telephone outlets should be positioned to fall within the flat surfaces of the panels.

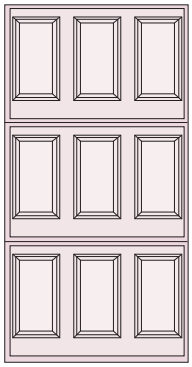
Where openings cannot be planned to suit the module of the **Lafarge Fresco** panels, spacer pieces will be required at ends of runs. The recessed edge of **Lafarge Fresco** panels allows them to be jointed with tapered edge 15mm **Lafarge Firecheck** wallboard.

Set out framing at 400mm centres, or where direct bonded apply dabs of **Lafarge Bonding Compound** in vertical rows at 400mm centres.

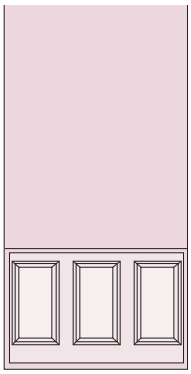
Additional framing is required to support horizontal joints.



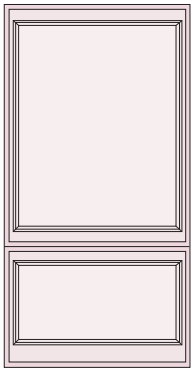
Standard Mainwall Panel above Standard Wainscot Panel, height 2400mm



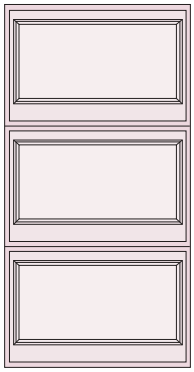
Three Standard Wainscot Panels, height 2400mm



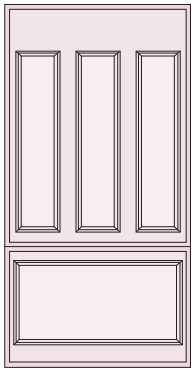
Plain wallboard above Standard Wainscot Panel, height as required



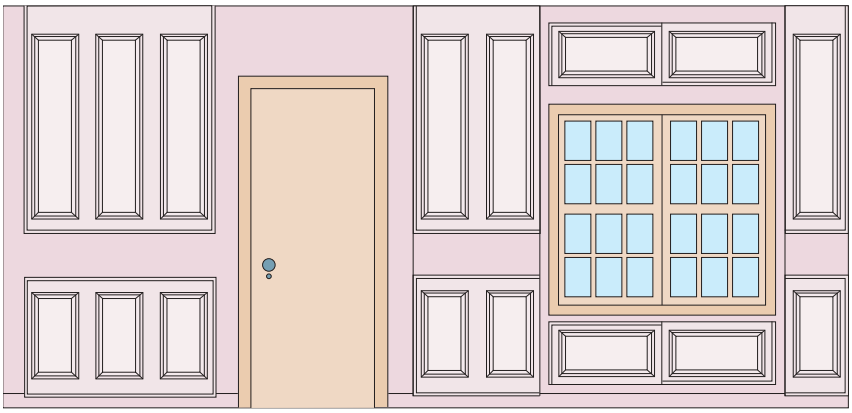
Grand Mainwall Panel above Grand Wainscot Panel, height 2400mm



Three Grand Wainscot Panels, height 2400mm



Standard Mainwall Panel above Grand Wainscot Panel, height 2400mm



Wall layouts

Application details

Cutting

Always support the boards to prevent flexing. **Lafarge Fresco** should be cut with a fine-toothed saw, alternatively use a sharp knife to deeply score the face, gently break the board from the back and cut the other liner. Do not cut across the sculptured panels. Keep cuts at least 25mm from the sculptured panel edges.

Fixings to timber/Cormet Metal Framing

Use appropriate **Lafarge Screws** for fixing.

Screw lengths are given in table 6.7.

Screw position

- at least 10mm in from paper bound edges of the boards
- within the flat surfaces of the sculptured panels, at least 25mm in from the pattern edges
- at least 13mm in from any cut edges of the boards

Screw spacing

- 230mm centres on ceilings and 150mm centres around ceiling perimeters and cut ends of board
- 300mm centres on walls and partitions

Spot screw heads with jointing compounds to provide a flush surface.

Alternatively **Lafarge Fresco** panels may be installed by direct bonding with **Lafarge Bonding Compound**.

Refer to page 30 for recommendations and limitations.

Jointing

The unique recessed edge of **Lafarge Fresco** enables the panels to be jointed using similar techniques to tapered edge plasterboards.

Finishing

Finish the installed panels with **Lafarge Universal Sealer** or **Lafarge Drywall Sealer** and as normal with emulsion paint. Spray painting produces the best appearance. Paint may also be applied to the flat areas of the boards with a very fine textured roller, and to the sculptured areas with a brush.

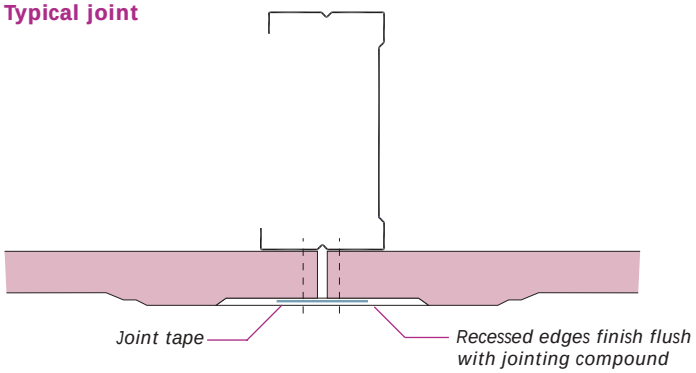
Repairs

If localised damage to the sculptured panels should occur, repair using ornamental plaster techniques. Flat areas may be repaired in the normal way.

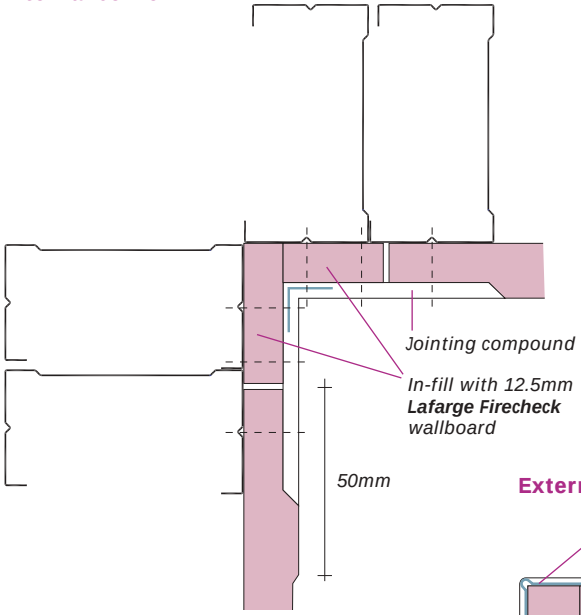
Table 6.7 Recommended screw lengths

Construction		Plasterboard thickness (mm)	Screw length (mm)	Type Lafarge
Timber framing	Single layer	15.0	41	High Thread
	Double layer	15.0 + 9.5	51	High Thread
	Double layer	15.0 + 12.5	57	High Thread
	Double layer	15.0 + 15.0	63	High Thread
	Double layer	15.0 + 19.0	63	High Thread
Steel framing	Single layer	15.0	25	Self Tapping Drywall
	Double layer	15.0 + 9.5	38	Self Tapping Drywall
	Double layer	15.0 + 12.5	38	Self Tapping Drywall
	Double layer	15.0 + 15.0	44	Self Tapping Drywall
	Double layer	15.0 + 19.0	44	Self Tapping Drywall

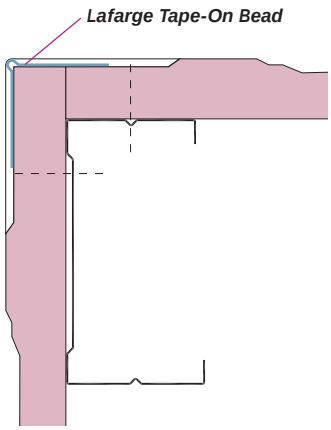
Typical joint



Internal corner



External corner



NB: Actual configurations of framing and in-fill board will vary with setting out

Application details

Stairwall Layouts

Planning

As for regular **Lafarge Fresco** panels, planning prior to installation is critical. For best results, include the landing and hall in the stair layout diagram.

- Measure the horizontal length of the staircase (A).
- Divide this length by 400mm to give the number of panels required.
- For example A = 2500mm ÷ 400 = 6 with 100mm left over. Panelling will therefore start 50mm from bottom edge.
- Position panels as on the drawing.
- Plan hall and landing as for regular **Fresco**.

Panels should be cut to the stair angle (maximum 42º) passing no closer than 40mm to the moulded pattern, at top and bottom.

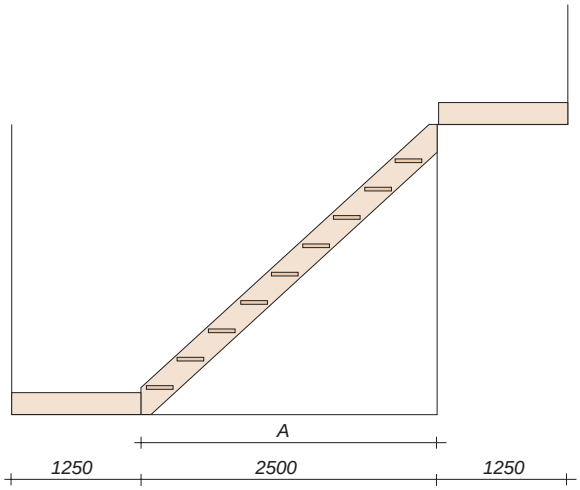
For lower angle stairs this distance may be increased as taste dictates.

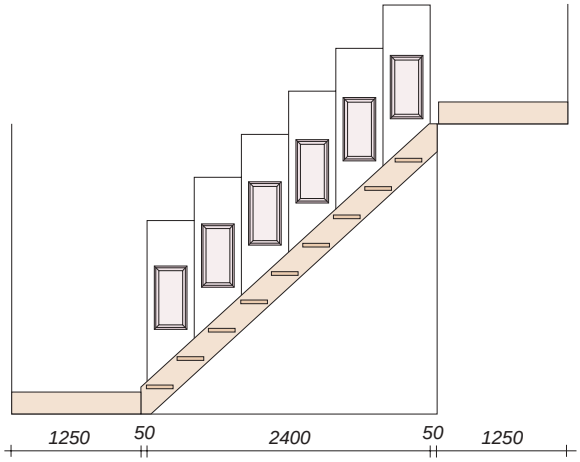
It may be preferable to place a larger filler piece at the end of the hall and landing to ensure smooth flow of panelling up the stairs.

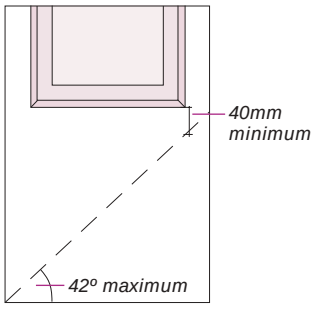
Installation

Install panels as for regular **Fresco**, butting to the string of the stairs.

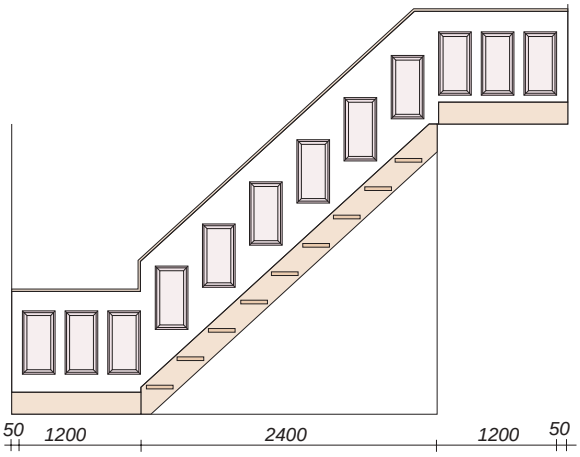
Alternatively **Lafarge Fresco** panels may be direct bonded to the existing wall using **Lafarge Drywall Adhesive**. Secure with 60mm **Lafarge Nailable Plugs** into masonry backgrounds.







Critical dimensions



Note, skirting and dado rail by others

Setting out Stairwall Panels

6

Application details

Ceiling layouts

Where the ceiling includes recessed or surface mounted lighting fittings they should be positioned in the centres of raised panels, borders or spacer pieces.

In planning ceiling layouts use a module of 400mm for **Fresco Standard** and 600mm for **Fresco Grand**.

Rectangular Rooms: If the overall ceiling dimensions are multiples of 1200mm, the entire ceiling may be covered with uncut butt-jointed boards.

If the overall ceiling dimensions are multiples of 400mm (600mm), the ceiling should be made up of full boards plus a perimeter surround of uniform width, made up from 15mm taper edge **Lafarge Firecheck** wallboard.

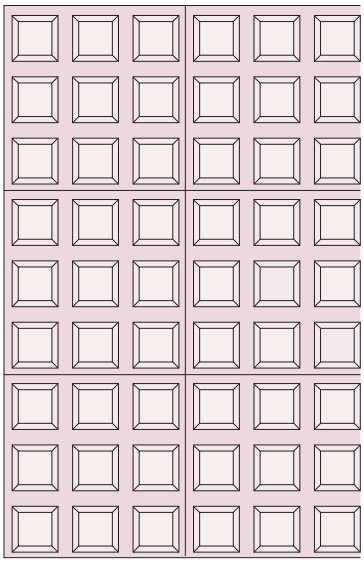
Rectangular Rooms, non-modular: Prepare a dimensioned layout. Make up perimeter areas as necessary with filler pieces of 15mm taper edge **Lafarge Firecheck** wallboard making the border widths as uniform as possible.

Set out framing at 400mm (300 for 600mm module) centres. Provide additional framing as required.

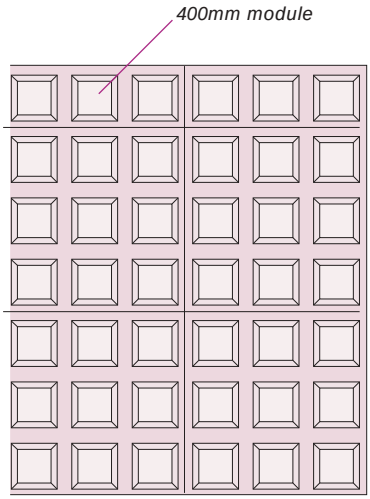
Handling and storage

These products require more care in handling than Standard wallboard. Packs as delivered should be stored flat and not opened until the detailed instruction sheet provided with each pack has been read carefully. To install, tilt each board upright onto one cut edge and carry in the vertical position to the framing, taking care not to flex the board whilst screwing into position.

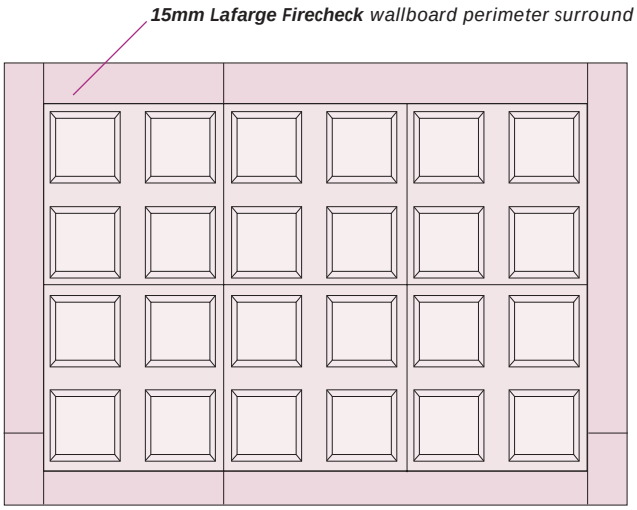
Ceiling layouts



Rectangular room, 1200mm module



Rectangular room, 400mm module



Rectangular room, non modular

Specification clauses

Lafarge Fresco

Scope

Alternative clauses for specifying **Lafarge Fresco** to linings, partitions, timber framed or suspended ceilings.

Additional clauses

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

- 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

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 the Performance tables)*

Location .....

Client reference .....

Adhesive application

Apply Lafarge Bonding Compound or Lafarge Multi Purpose Adhesive in 250mm dabs at 300mm centres in vertical rows, ... /No. rows per board. *(3 No. rows for Fresco Grand, 4 No. rows for Standard Fresco.)*

Finished thickness to be 10-25mm.

Cormet Metal Framing components

Framing components to be hot dipped galvanised steel to BS EN 10143: 1993 and BS EN 10142: 1990 and Approved Document A1: 1995 designated DX51D and Z275 NAO. Sections rolled to BS 2994: 1987.

Framing

Provide extra framing to support fixing of Fresco at ..... mm centres. *(400mm centres for Standard Fresco and 300mm centres for Fresco Grand Ceiling Panels.)*

Boarding

Lafarge Fresco .....panels.

Size ..... mm x ..... mm Thickness 15mm.

(Panel types and sizes are given on pages 261 and 262)

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.

Case study

Dogmersfield Hall, Fleet

Drywall systems from Lafarge played a key role in the transformation of this 17th Century baronial hall into a luxury hotel. Dogmersfield Hall once played host to Ann Boleyn. Extended in the 1960s, it then found a new role as a computer company headquarters. It has been extended again as part of its renaissance as one of the country's most prestigious hotels. Lafarge systems are used for partitions and to line the original walls of the 17th Century Hall, the 1960s extension and the new wing. For the recent extension Lafarge structural metals are used together with exterior thermal sheathing utilising Moisturecheck board bonded to thermal laminate.

Client: Chemlore Development Ltd

Main contractor: Parkhouse Construction

Hotel operator: Four Seasons Group

LAFARGE PLASTERBOARD

Lafarge Cove products make adding a quality finish, with style, both simple and affordable. Readily fixed with **Lafarge Cove Adhesive**.

Use of **Lafarge Cove** in conjunction with strips of plasterboard allows still more intricate designs to be created.

Once reserved for prestige homes and the principal rooms of properties, these products now allow cove to be added throughout a development at minimal cost.

6

Introduction

Lafarge Cove

Lafarge Cove is a simple and cost effective way of adding attractive and distinctive features to the wall and ceiling junction. Designed for internal use **Lafarge Cove** can complement many room styles.

Composition

Lafarge Cove is made from plaster encased in a strong paper liner. The square back profile and pure gypsum core provide high strength and rigidity giving easy fixing and good workability.

Sizes

See table 6.8.

Lafarge Cove Adhesive

Lafarge Cove Adhesive is a gypsum based compound with a 40 minute setting time. It has exceptional smoothness for ease of application and dries white for ease of decoration. **Lafarge Cove Adhesive** is also ideal for filling and patching Lafarge Cove.

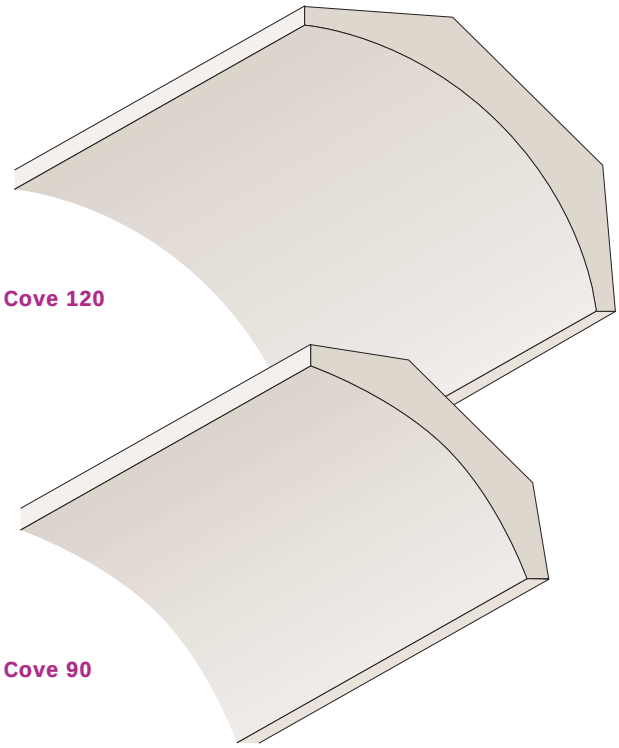
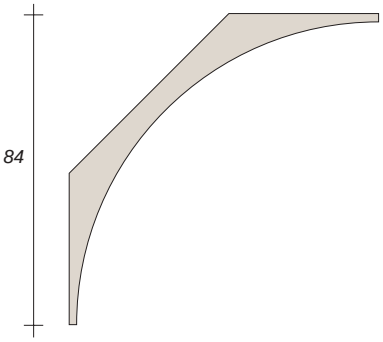


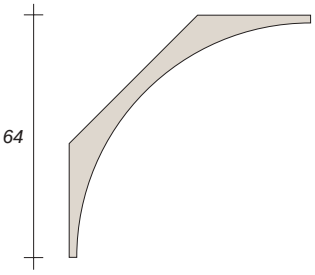
Table 6.8 Sizes

Girths (mm)	Lengths (mm)	Weights (kg/m)
90	3000, 3600	0.9
120	3000, 3600, 4200	1.4

Cove 120



Cove 90



Application details

System assembly

The following instructions describe the correct method of installation for **Lafarge Cove**. Any variations of these methods may produce unsatisfactory results.

Preparation of background

Make sure the background is dry and rigid. Any wallpaper, whitewash, distemper or loose decorations should be removed. Brush over the surface to remove any remaining loose particles and dust.

Measuring and cutting

- Using a chalk line strike guidelines on ceiling and wall to the correct projection and depth:
  64mm for 90mm **Lafarge Cove**
  84mm for 120mm **Lafarge Cove**
- Using the guidelines on the wall drive in nails at 1500mm centres to act as a temporary support while the cove adhesive sets.
- Using a fine-toothed saw cut all the pieces of cove to length and mitre to fit the corners of the room.The mitres can be cut using a mitre block or template. Templates are available from Lafarge Plasterboard Literatureline or www.lafargeplasterboard.co.uk
  Note: It is best practice to fit the longest lengths first and work in one direction around the room. If the room has a chimney breast start on the face of the chimney and work in one direction around the room.

Mixing and applying Lafarge Cove Adhesive

- Ensure the site temperature never falls below 5ºC.
- Always use clean tools and water.
- Pour clean, drinkable water into a container.
- Gradually add the amount of **Lafarge Cove Adhesive** that can be used within 30-40 minutes, stirring continuously.
- Mix to a smooth, thick, lump free consistency.
- Stir mixture immediately before use.
- Apply the adhesive in beads approximately 3mm thick and 10mm wide along the full length on each back edge of the cove.
- Apply to one cove section at a time.

Fixing Cove

- Sit the lengths of cove on the nails and press into position between the guidelines, carefully lining up joints and intersections.
- Clean off surplus adhesive with filling knife and smooth using a sponge.
- Using **Lafarge Cove Adhesive** fill any gaps between the cove and the wall or ceiling. Make good all internal and external junctions.
- Remove all temporary nails once the cove adhesive has set and fill nail holes.
- Using a damp sponge, clean off any adhesive residue from the walls, ceiling and cove surface.

With uneven ceilings it may be necessary to permanently nail the cove about 25mm from one edge using **Lafarge Drywall Nails**. Nail heads should be countersunk and covered with **Lafarge Cove Adhesive**.

Where surfaces have been previously painted, they must be abraded vigorously with sandpaper or a wire brush and coated with a 50:50 mixture of a PVAC bonding agent and water. For further details contact the Lafarge Technical Enquiryline (01275 377789).

Decorating

Lafarge Cove is suitable for most types of decoration including:

Painting

Apply one coat of **Lafarge Universal Sealer**, or if a vapour control layer is required use two coats of **Lafarge Drywall Sealer**, and decorate as required.

Paper borders

Paper borders may be applied to the painted surface to provide distinctive appearance.

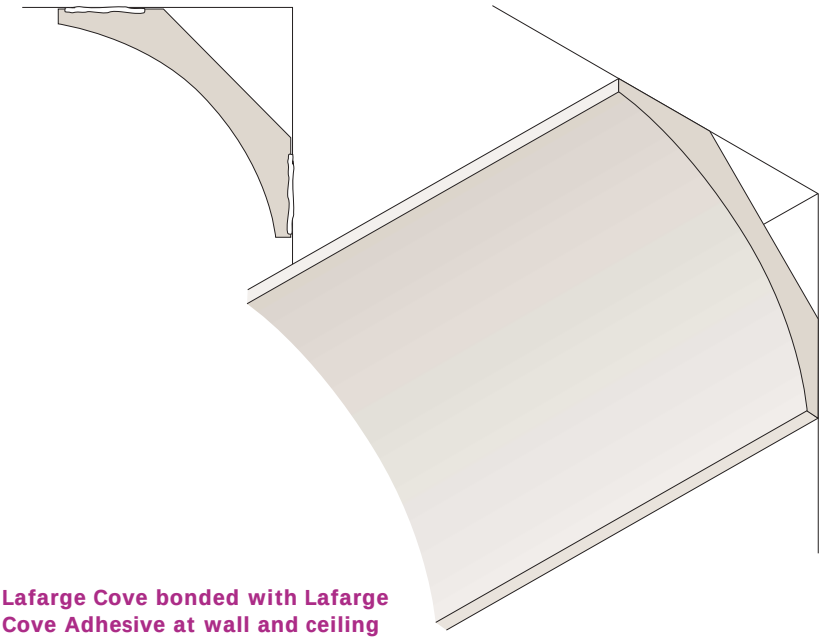
Texturing

Apply **Lafarge Universal Texture** or similar according to manufacturer's instructions and recommendations.

Plasterboard strips

The addition of plasterboard strips between the coving and the wall/ceiling can greatly enhance the coving feature. See details on next page.

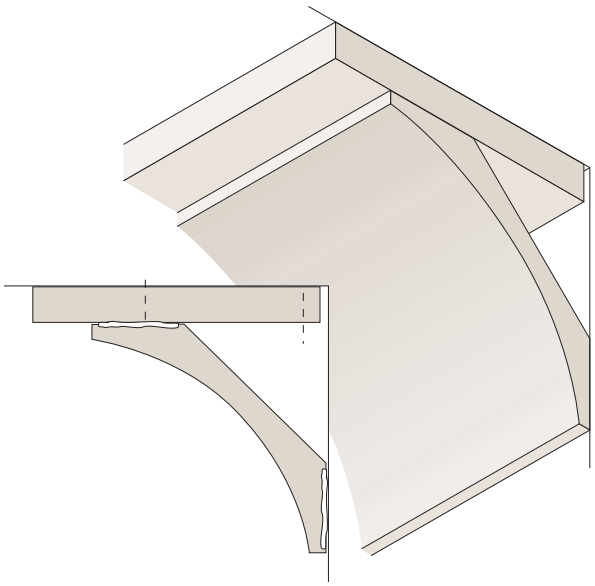
Ensure that the visible edges of the plasterboard strips are bound edges to facilitate decoration.



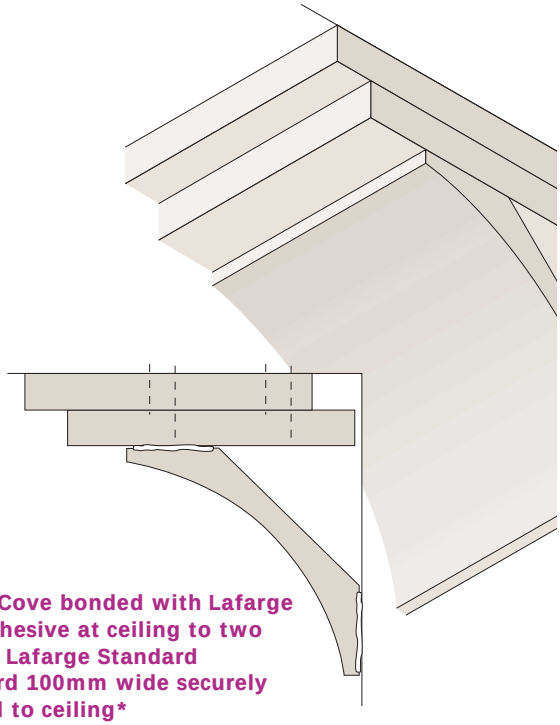
Lafarge Cove bonded with Lafarge Cove Adhesive at wall and ceiling

Application details

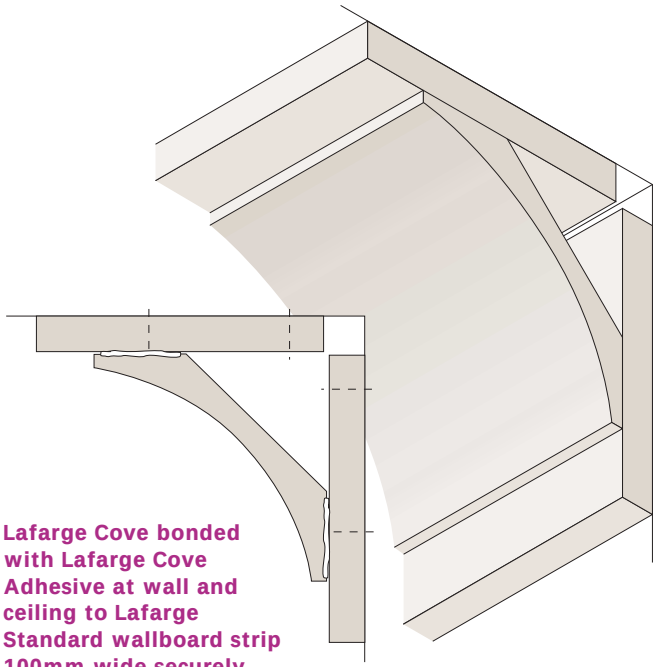
Examples of coving details using Lafarge Cove and Lafarge Standard wallboard



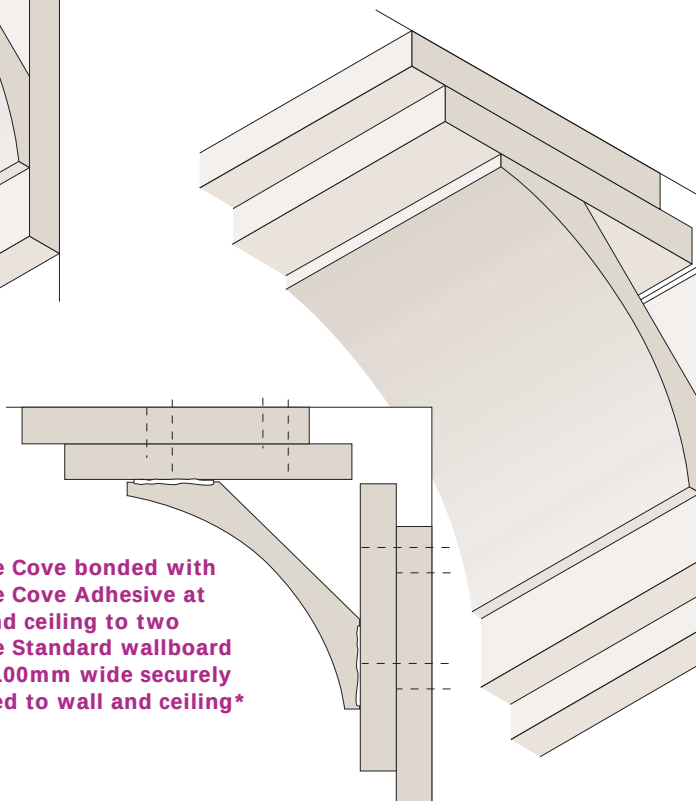
Lafarge Cove bonded with Lafarge Cove Adhesive at ceiling to Lafarge Standard wallboard strip 100mm wide securely fastened to ceiling*



Lafarge Cove bonded with Lafarge Cove Adhesive at ceiling to two strips of Lafarge Standard wallboard 100mm wide securely fastened to ceiling*



Lafarge Cove bonded with Lafarge Cove Adhesive at wall and ceiling to Lafarge Standard wallboard strip 100mm wide securely fastened to wall and ceiling*



Lafarge Cove bonded with Lafarge Cove Adhesive at wall and ceiling to two Lafarge Standard wallboard strips 100mm wide securely fastened to wall and ceiling*

*Use square edge wallboard, bound edges outward.

Specification clauses

Lafarge Cove

Scope

The application of **Lafarge Cove** at the wall/ceiling junction.

Additional clauses

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

- 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

Notes:

Red text lists alternative product specifications.

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

Location.....

Client reference .....

Background

The background shall be undecorated new plasterboard, or

The painted surface to be abraded to make a new key and treated with PVAC bonding agent to BS 5270, or

The textured coating to be removed taking care not to damage the surface of the plasterboard beneath. Once texture is removed, treat surface with PVAC bonding agent to BS 5270.

Plasterboard strips

Install strips of .....mm thick Lafarge Standard wallboard in accordance with detail reference ..... using Lafarge Cove Adhesive. *(Insert information on plasterboard thickness and detailed drawing reference)*

Coving

Lafarge Cove, width 120mm or 90mm to be fixed using Lafarge Cove Adhesive fully in accordance with Lafarge Plasterboard's instructions, including filling gaps with adhesive.

Drywall Sealer

Once dry, the surface of the Cove shall be sealed with one coat of Lafarge Drywall Sealer or Lafarge Universal Sealer.

Decoration

The Cove shall be decorated with the adjacent plasterboard (or other) surfaces.

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.

Case study

MoD Army Defence Logistics Organisation, Andover

An indoor street at a new office complex for the MoD Army Defence Logistics Organisation at Andover takes much of its character from the towering drywall partitions that form its walls. The interior uses Megadeco and Firecheck boards, as well as standard wallboards. The balustrade running the length of the building utilises 70mm 1.2 gauge metal studs with a 146mm x 1.2mm stud forming the railhead. Megadeco is used to create the facings. Elsewhere, Shaftwall is used for service risers and curved stairwells are created with twin layer facings of 12mm wallboard and Megadeco, pre-wetted and laid horizontally.

Client: Citex

Drywall contractor: Imperial Ceilings & Partitions

Main contractor: Pearce Construction

LAFARGE PLASTERBOARD
MEGADECO

The **Lafarge Profiles** range comprises metal sections designed to complement the Lafarge board range and allow the creation of intricate details, reveals, shadowlines, and uplighters.

These products offer the architect the opportunity to expand creative horizons and achieve apparently complex design effects with remarkable ease.

6

Introduction

Lafarge Profiles

The **Lafarge Profile** range of architectural design products allows features once only possible with wet plaster and costly one-off components to be achieved quickly and economically.

The **Lafarge Profile** range enables the designer to use plasterboard in new and more imaginative ways, and to create interesting and pleasant living and working environments whilst meeting modern requirements for use of space and performance.

Lafarge Profiles offer two powerful design solutions:

Shadowline and Softform

Lafarge Shadowline Profiles provide many opportunities for the introduction of relief and articulation to wall and ceiling surfaces: expressed joints, reveals, accented junctions, recessed panelling and stepped cornices, architraves and mouldings.

A softer approach is possible with **Lafarge Shadowline Profile** to create smooth curves at intersecting planes, corners, door surrounds, partition junctions and bullnose ends.

The **Lafarge Profiles Uplighter** range of fittings incorporate the stepped and rounded corner details of the Shadowline and Softform profiles respectively

Performance

Fire protection

Where fire resistance is required, an additional layer of Lafarge wallboard must be added to the basic fire-resisting partition to accommodate the **Lafarge Profile**. Installations using **Lafarge Profiles** will maintain the Class 0 flame spread rating of Lafarge plasterboard.

Sound insulation

The acoustic performance of a partition may be compromised by using **Lafarge Profiles**. To maintain acoustic performance an additional layer of Lafarge wallboard must be added to the basic sound resisting partition to accommodate the **Lafarge Profiles**.

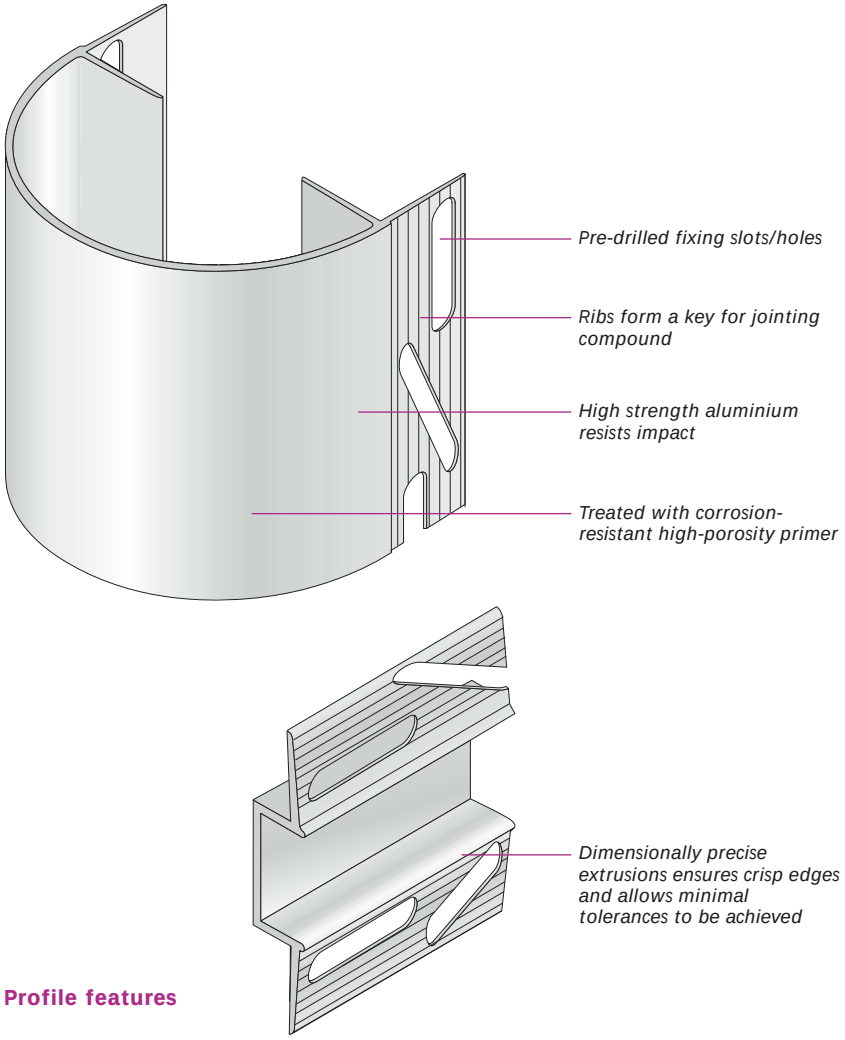
Composition

All **Lafarge Profiles** are produced from high-strength dimensionally precise aluminium alloy extrusions. They are finished with a corrosion-resistant high-porosity primer which is compatible with most materials commonly in use in commercial and domestic interiors, such as vinyl emulsion paints and wallcovering adhesives etc.

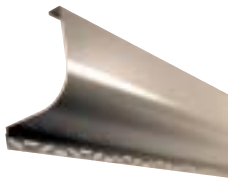
Shapes, sizes

All Profiles are supplied in lengths of 3000mm. The full range of sections is shown on the following pages.

Profile features



Components



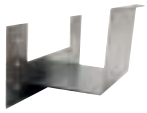
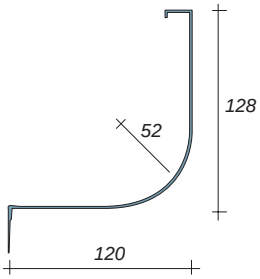


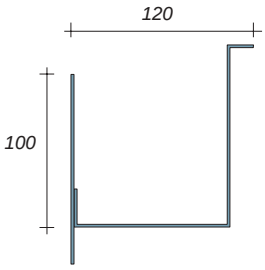
Table 6.9 Lafarge Softform components

Component	Lafarge code	Description/use
Softform Uplighter	SUS52	Curved casing to incorporate linear lighting
Uplighter Support Bracket	USB1	Provides a mounting for linear lighting
Softform Bullnose	SB75 SB95	Creates a smooth round finish to a partition end and projecting bulkhead
Softform Outside Corner	SO64 SO76	Allows partitions and wall linings to be constructed with 90° corners. No additional impact protection is required
Softform Inside Corner	SI64 SI76	Allows partitions and wall linings to be constructed with 90° corners. No additional impact protection is required
Trim Head Screw	41THST25 57THST25	A self tapping screw for flush finish with Lafarge Profiles

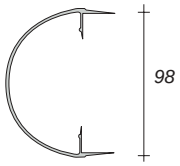
Dimensions of Softform profiles



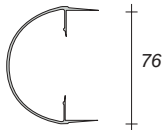
Softform Uplighter SUS52



Uplighter Support Bracket USB1

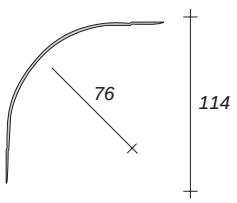


SB95

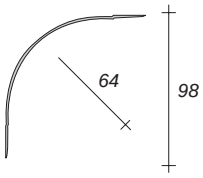


SB75

Softform Bullnose

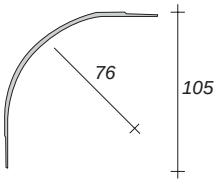


SI76

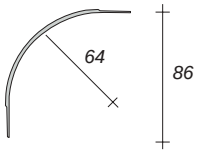


SI64

Softform 90° Inside Corner



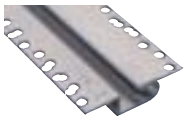
SO76



SO64

Softform 90° Outside Corner

Components



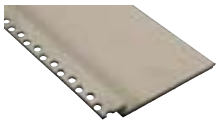
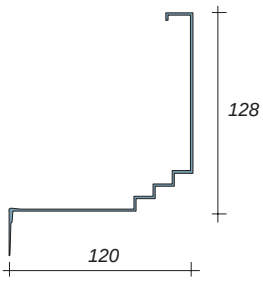


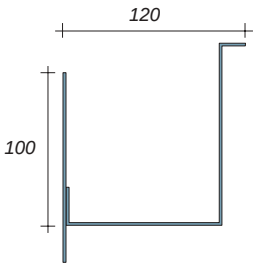
Table 6.10 Lafarge Shadowline components

Component	Lafarge code	Description/use
Shadowline Uplighter	SUS4	Crisp stepped extrusion to incorporate linear lighting
Uplighter Support Bracket	USB1	Provides a mounting for linear lighting
Shadowline Reveal	SWR12.5 SWR25	Provides a means of relieving runs of drywall with recessed accent lines
Shadowline Hanging Reveal	SHR12.5	Incorporates a concealed track for picture and other lightweight hangings
Shadowline Picture Hanger	SPH1	For use with Shadowline Hanging Reveal
Shadowline Corner Step	SCS2 SCS4	Allows complex corner details to be incorporated into wall angles, ceilings, soffits and columns
Shadowline Trim Reveal	STR12.5 STR25	Enables neat architrave details to be created around door frames, skirtings and at partition junctions
Shadowline Z Step	SWZ12.5 SWZ25	Allows the drywall linings to be easily raised or recessed
Shadowline Edge Trim	ST12.5 ST25	Sharp 90° aluminium extrusion installed against cut edges of plasterboard
Shadowline Flex Trim	STF12.5 STF25	Allows raised or recessed panels or opening in walls to be constructed with curved edges
Shadowline Skirting	SWB105	The Shadowline Skirting provides a recessed finish to the wall at floor level. The bottom edge of the skirting is thinner to allow scribing to an irregular floor surface
Trim Head Screw	41THST25 57THST25	A self tapping screw for flush finish with Lafarge Profiles

Dimensions of Shadowline profiles



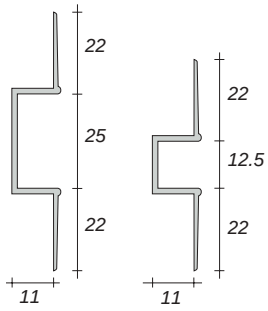
Shadowline Uplighter SUS4



Uplighter Support Bracket USB1

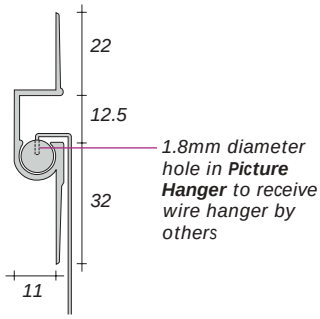
Components

Dimensions of Shadowline profiles

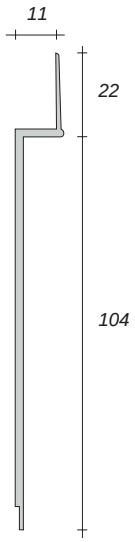


SWR25 **SWR12.5**

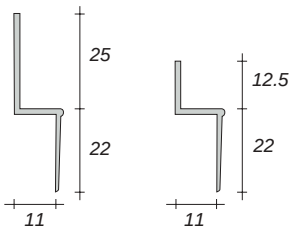
Shadowline Reveal



Shadowline Hanging Reveal SHR12.5 and Picture Hanger SPH1

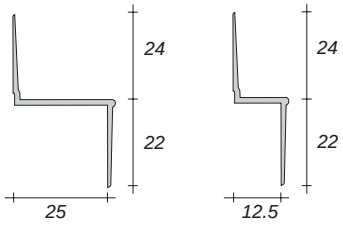


Shadowline Skirting SWB105



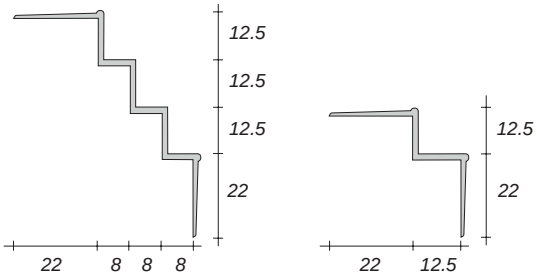
STR25 **STR12.5**

Shadowline Trim Reveal



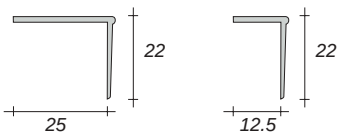
SWZ25 **SWZ12.5**

Shadowline Z Step



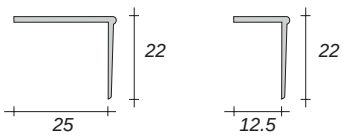
SCS4 **SCS2**

Shadowline Corner Step



ST25 **ST12.5**

Shadowline Trim



STF25 **STF12.5**

Shadowline Flex Trim

6

Application details

Shadowline Uplighter

Lafarge Profile Uplighter is a non-structural feature designed to incorporate linear fluorescent lighting up to 100mm in width. The assembly uses **Lafarge Uplighter Support Brackets** (USB1) to provide a mounting for linear lighting.

System Assembly

Lafarge Profile Uplighter can be fixed to drylined masonry walls and partitions. **Lafarge Profile Uplighter** requires no special installation techniques, however consideration of its location during setting out will reduce time and wastage and enable the position of any additional framing required to support the assembly to be determined.

Fixing Brackets

After boarding, screw fix **Lafarge Uplighter Support Brackets** through the plasterboard and into the supporting framing, as required, centres not to exceed 1200mm.

For masonry walls, drill and plug to a minimum 25mm into masonry.

When fixing to an existing partition, first locate the existing studwork. Screw fix at least one side of the **Lafarge Uplighter Support Bracket** to the framing and secure the other side to the plasterboard with **Lafarge Laminating Screws**.

Fixing Uplighters

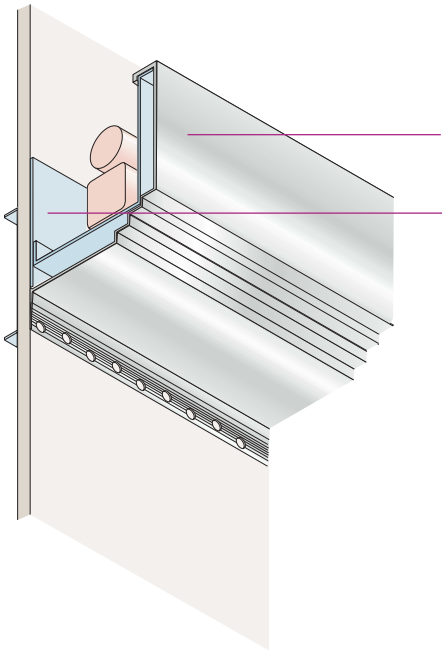
Cut **Lafarge Profile Uplighter** to length using a mitre box and large hack saw. Accuracy with cuts and mitres will ensure crisp jointing. Offer the **Lafarge Profile Uplighter** to the **Lafarge Uplighter Support Brackets** and fit. Screw fix through the fixing fin and plasterboard into the framing at 150mm centres.

For masonry walls, drill and plug to a minimum 25mm into masonry.

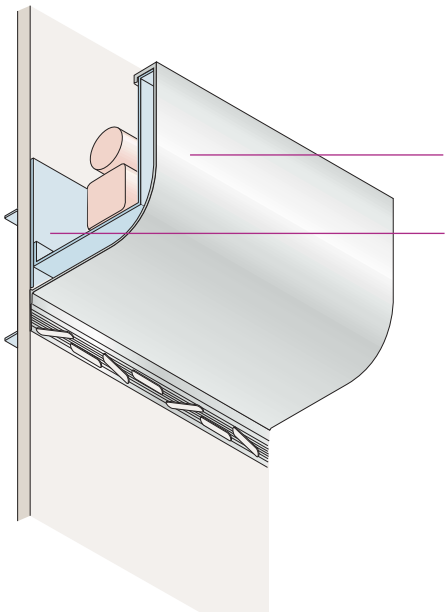
For existing partitions, screw fix at existing framing centres, run a continuous bead of **Lafarge Drywall Adhesive** along the fixing fins and secure fix between the framing centres with **Lafarge Laminating Screws** at 150mm centres. Allow to cure for 24 hours.

Lengths of uplighters may be butt jointed and cut ends supported by a **Lafarge Uplighter Support Bracket**. Flush joints may be created by filing bevels on the cut ends to form a shallow v-joint, then filling with glass fibre/resin metal body putty and sanding smooth.

Shadowline Uplighter



Softform Uplighter

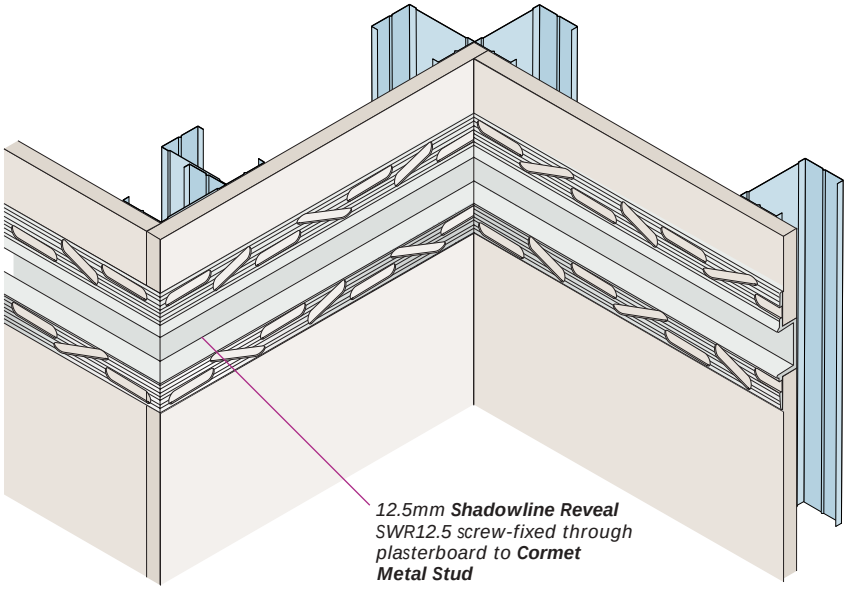


Application details

Shadowline Profiles

Shadowline Reveal

Lafarge Profile Shadowline Reveals can be used to provide horizontal or vertical recessed bands with crisp, well-defined edges in wall linings, ceilings and partitions.

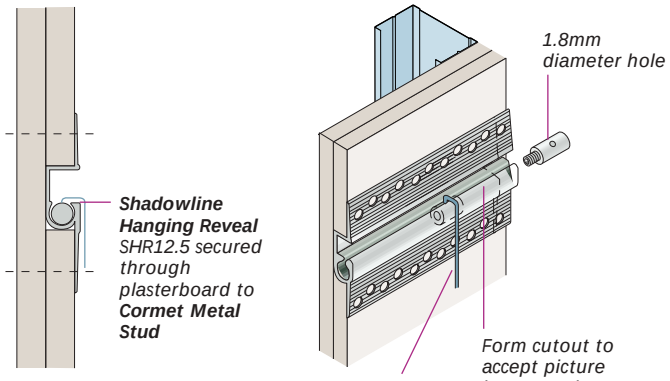


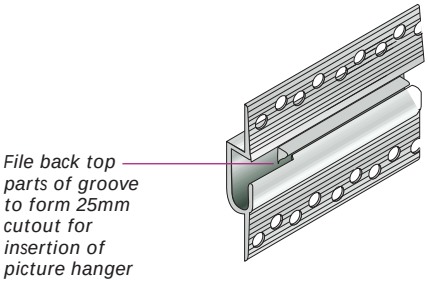
Shadowline Hanging Reveal

The **Lafarge Profile Shadowline Hanging Reveal** offers a simple and effective solution to the problem of providing unobtrusive picture rails, for the home, office or gallery.

It is suitable for hangings with a point load of up to 50kg and a maximum loading not exceeding 100kg/m UDL without additional framing supports. Contact our Technical Enquiryline for further details.

Using a file or drill, form a 25mm cut-out in at least one end of each run of Reveal before fixing, to allow for insertion of hangers.

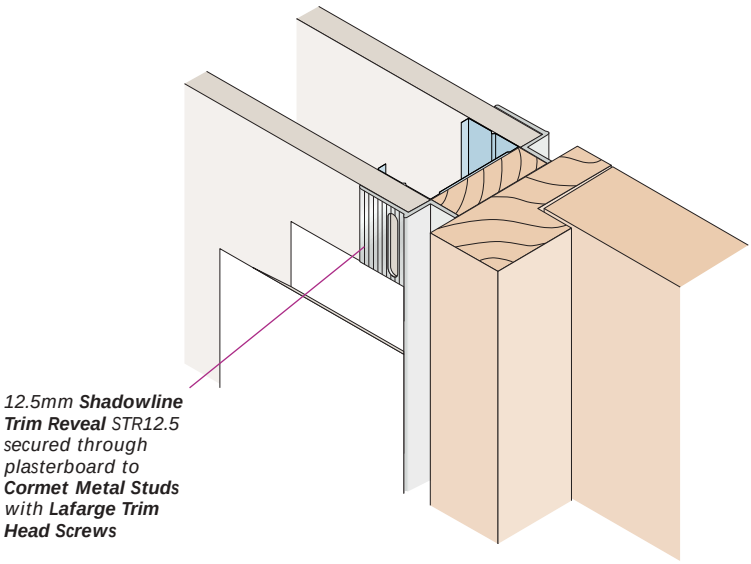




Application details

Shadowline Trim Reveal

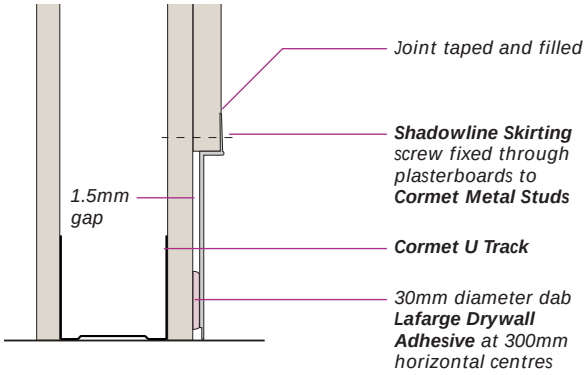
Lafarge Profile Shadowline Trim Reveals have one tapered fin for smooth jointing to the plasterboard face; the other fin is square for butting against a return face or timber framing.



Shadowline Skirting

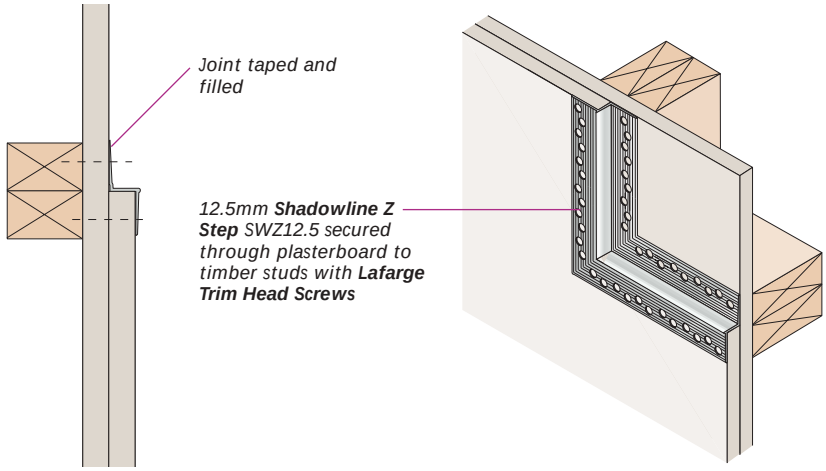
The **Lafarge Shadowline Skirting** provides a recessed finish to the wall at floor level. The bottom edge of the skirting is thinner to allow scribing to an irregular floor surface.

Apply a 6mm bead of **Lafarge Drywall Adhesive** along the centre of the skirting panel. Fasten skirting by fixing fins, then countersink two screws through to the framing at each end of the skirting panel.



Shadowline Z Step

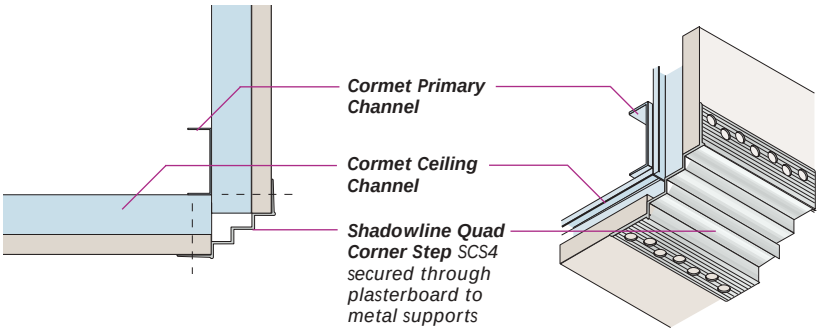
Shadowline Z Steps provide a quick method of forming recessed panels. They ensure that sharp, even corners can be achieved swiftly. The fins of the Z step are tapered to allow smooth jointing to plasterboard at both edges.

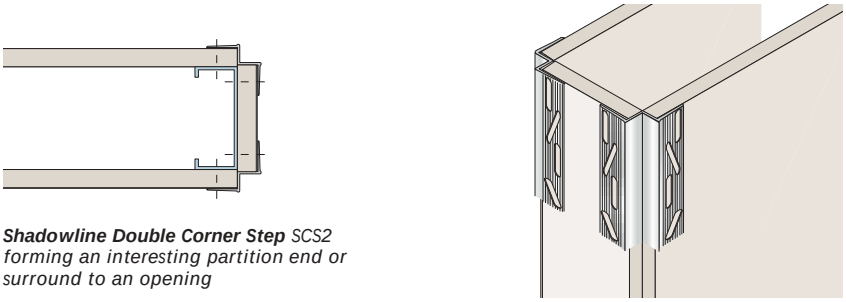


Application details

Shadowline Corner Steps

Lafarge Profile Shadowline Corner Steps extend the range and allow more intricate edge details to be incorporated into walls, columns and around ceiling recesses. They are available in double and quad step configurations.

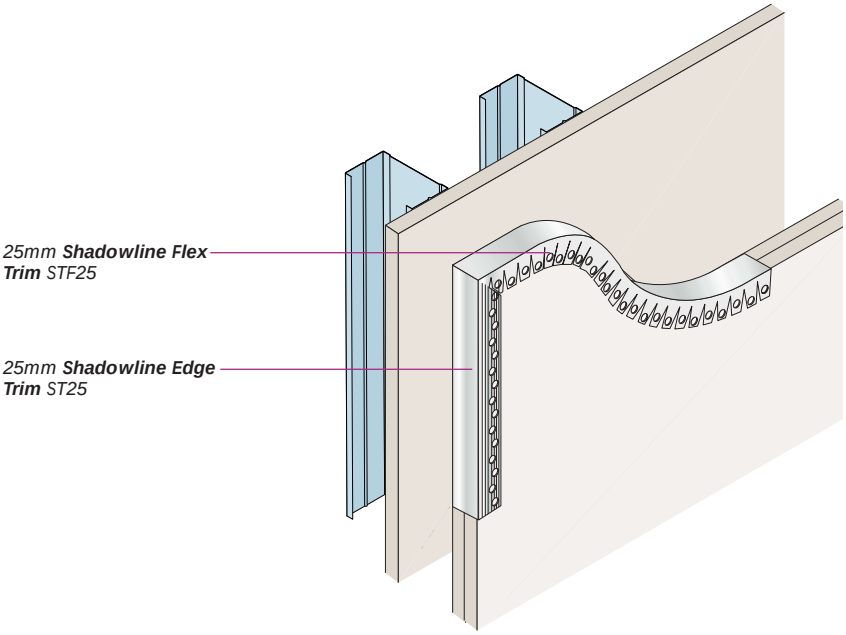




Shadowline Double Corner Step *SCS2 forming an interesting partition end or surround to an opening*

Shadowline Trims

Lafarge Profile Shadowline Edge Trim provides a neat edge to cut board ends. **Lafarge Profile Shadowline Flex Trim** pre-cut edge trim allows the creation of sharp curved edges to a minimum radius of 75mm.



Application details

Softform Profiles

Within the Lafarge range are smoothly flowing profiles for corners and bullnoses. They are an economical design solution for inherently safer and stronger corner treatments.

Lafarge Softform Profiles are a stylish solution to corner protection in high traffic areas. The aluminium alloy extrusion resists impacts better than conventional corner treatments, and allows corner protection to be built-in to the wall, so removing the need for unsightly externally-applied protection.

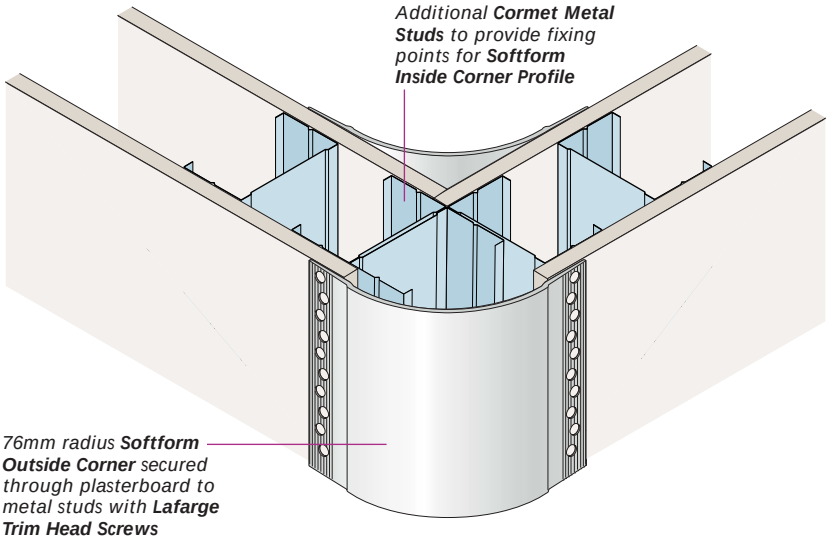
Softform Corners

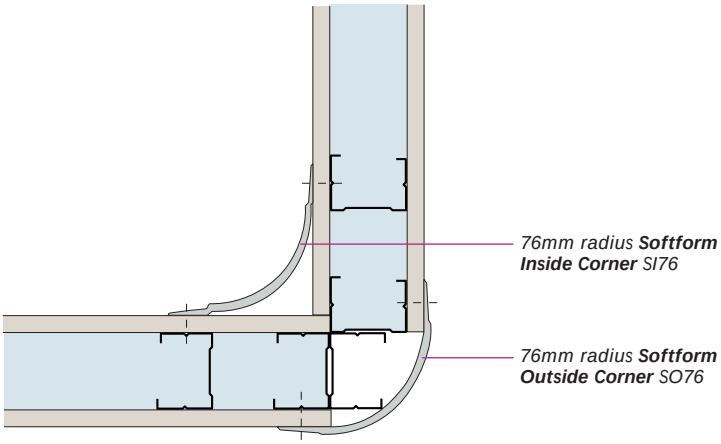
Lafarge Profile Softform Corners allow partitions and wall linings to be constructed with smooth curved corners. Both internal and external 90º corners can be formed, and the robust Profile sections do not require any additional impact protection.

In a 30 minute fire resisting partition, the fire resistance can be maintained at the curved corners by the method shown.

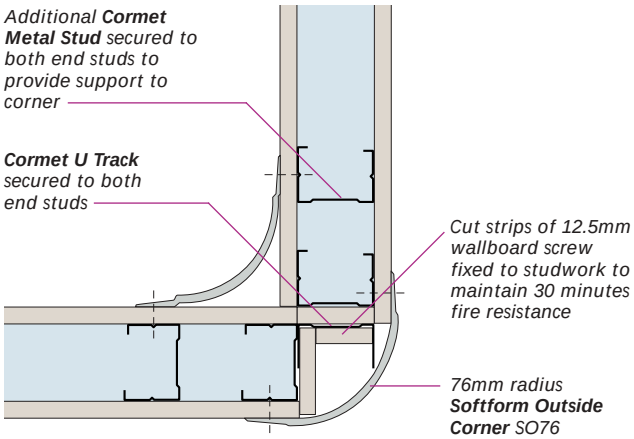
Similarly, 60 minute fire resistance can be maintained using an additional layer of plasterboard, as shown.

Lafarge Profile Softform Corners can also be used in many other ways where such smooth curved shapes are preferred, for example to create a recessed frame.

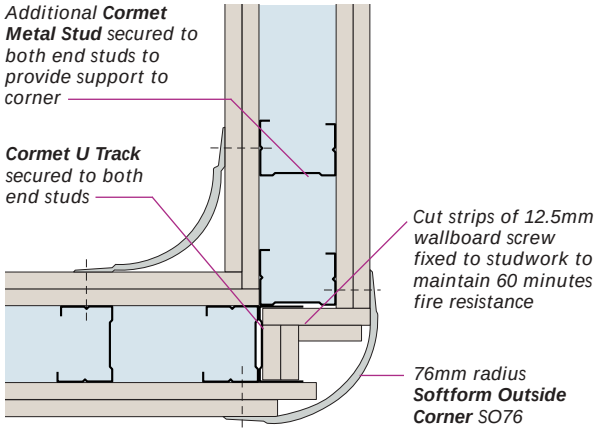




Softform Outside Corner forming curved corner to partition



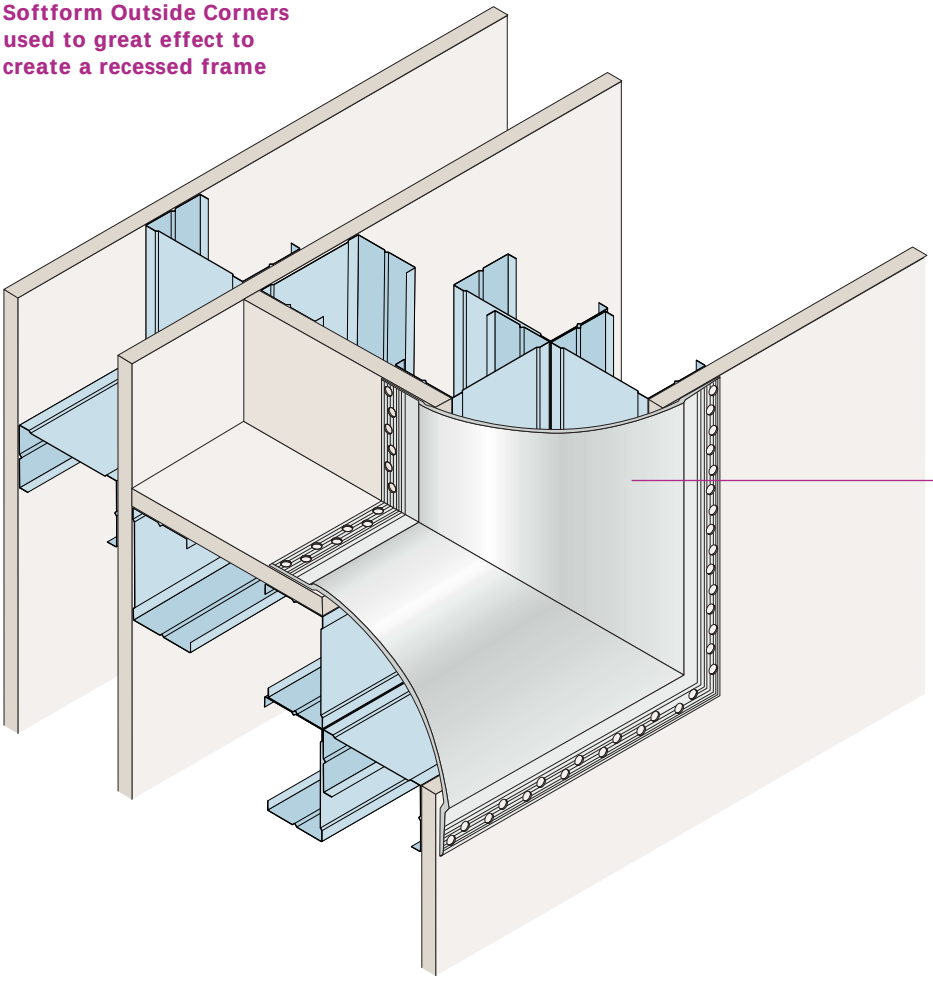
Softform Corners: 30 minutes fire resistance



Softform Corners: 60 minutes fire resistance

Application details

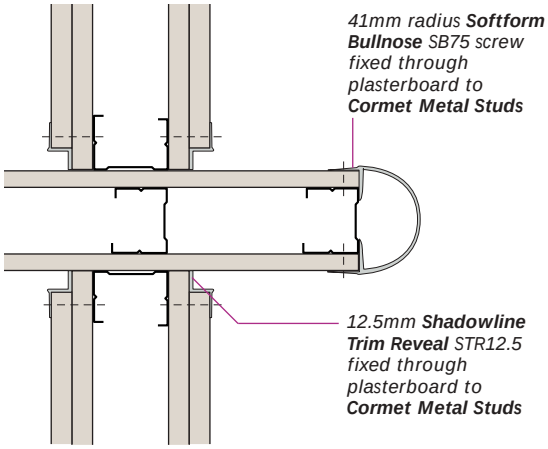
Softform Outside Corners used to great effect to create a recessed frame

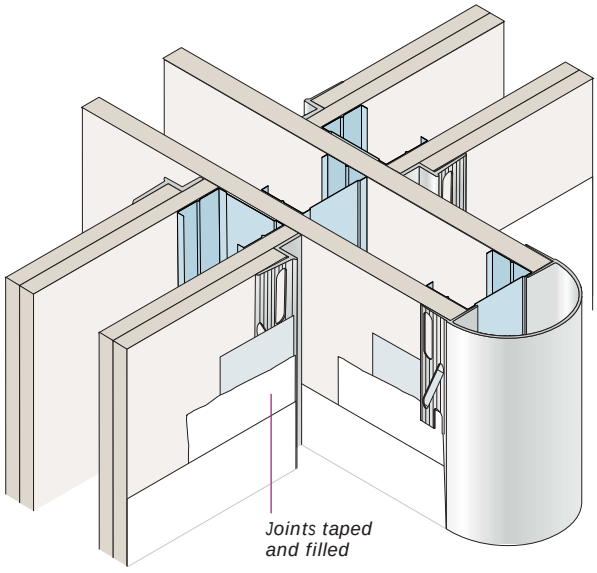


Softform Bullnose

The **Lafarge Profile Softform Bullnose** creates a smooth round finish to a partition end, and can be used for other features such as a projecting bulkhead, shown here.

This detail also shows the use of **Lafarge Profile Shadowline Trim Reveals** to form recessed joints at partition junctions.





Softform Bullnose projection on Cormet Metal Stud

6

Installation

Storage

Keep materials secure, covered and away from sources of potential damage, such as high traffic areas. Store on a flat surface. Vertical storage can cause end damage and warping.

Installation

Lafarge Profiles can be used in walls, partitions and ceilings. They are designed for use with single or double layers of plasterboard on timber, Cormet steel studwork, or with Cormet metal furring channels.

Lafarge Profiles require no special techniques, however, consideration of their location during setting out will reduce wastage, minimise the cutting, and enable the position of any additional framing required to support the Profiles to be determined.

Framing centres must not exceed 600mm. Additional support from extra studs or fixing channel should be provided at profile joint. Always fully support cut edges of plasterboards. A double layer of drylining will give greater rigidity.

Fixing

Install framing etc as required, and apply plasterboards. Reference should be made to BS 8212: 1995 *Code of practice for drylining and partitioning using gypsum plasterboard.*

For the **Softform Bullnose**, finish the plasterboard flush with the line of the stud.

For other **Lafarge Profiles** ensure that the Cormet metal frame supports the profile fixing fins.

Always use a drop saw (fixed power saw) or fine toothed hand saw with metal cutting blade to cut **Lafarge Profiles**. Lengths of profiles are usually butt jointed. Accuracy with cuts and mitres will ensure crisp jointing. Alternatively, a smooth joint can be achieved with **Softform Profiles** by filing bevels on the cut ends to form a shallow v-joint; fill with fibreglass body putty and sand smooth.

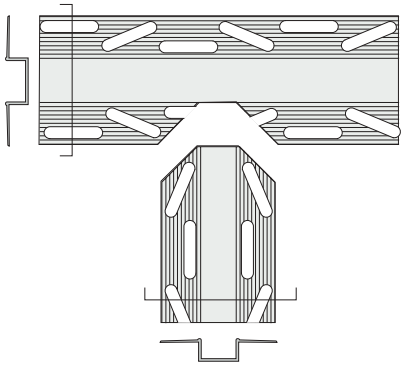
Test fit **Lafarge Profiles**, and screw-fix into the framing at all profile joints and along their entire length where they cross studs or where they lie along the line of the framing, at 150mm centres.

Table 6.11 Softform Profiles selector

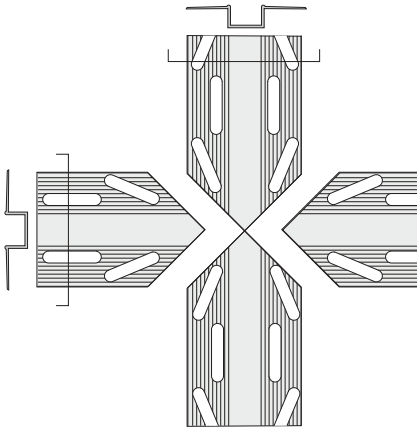
Profile	number of 12.5mm plasterboard layers	Stud size (mm)	Stud position from apex (mm)	Profile radius (mm)
Softform Outside Corner	1	50	at apex	64
	1	70	at apex	76
	2	50	at apex	76
Softform Inside Corner	1	50 or 70	75	64
	1	50 or 70	90	76
	2	50 or 70	90	64
	2	50 or 70	115	76
Softform Bullnose	1	50	–	41
	1	70	–	52

Table 6.12 Profile fixings selector

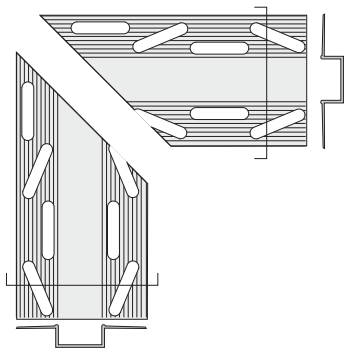
Plasterboard layers and thickness (mm)	Lafarge Trim Head Screw length (mm)	
	Cormet Metal framing	Timber framing
12.5	41	41
12.5 +12.5	41	57
15.0	41	41
15.0 + 15.0	41	57



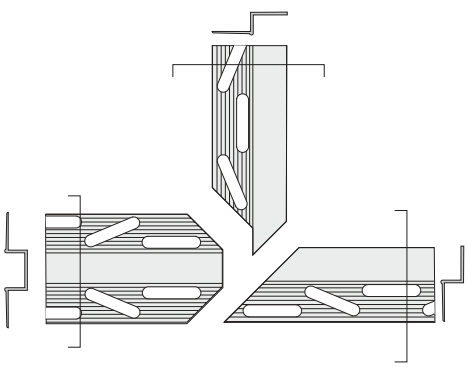
T junction



X junction



Corner



T junction of Reveal with Trim Reveals

Mitreing guide for Shadowline Reveals

Installation

Finishing

Once all **Lafarge Profiles** have been fixed, bed jointing tape with **Lafarge Fast Set** jointing compound along the fixing fins, taking care to ensure that the jointing tape does not overlap the shoulder of the profile. Apply a finishing coat of compound 200mm (8in) wide using a trowel. Run the trowel down the joint, keeping its edge in contact with the shoulder of the profile and with the surface of the plasterboard to ensure a flush finish.

Clean off all jointing compounds from the surface of the profiles. Do not allow the **Shadowline Hanging Reveal** (SHR12.5) to become blocked and ensure that the picture hangers will be able to move freely inside it.

Sand smooth with 120 grit sanding paper. Seal with **Lafarge Drywall Sealer** or **Lafarge Universal Sealer** before decoration.

Decoration

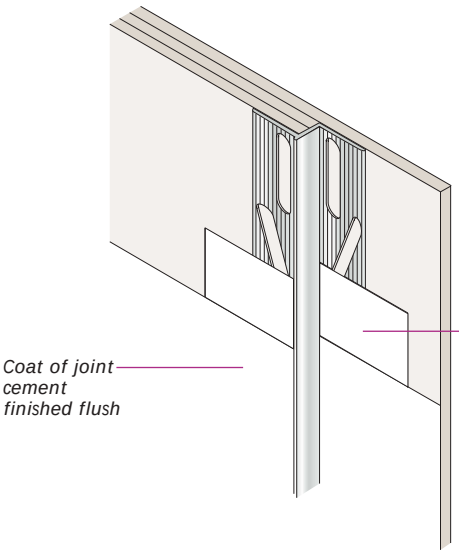
Lafarge Profiles accept most types of decoration:

- emulsion or oil-based paints
- Stipples, enamels, textured coatings
- wallpapers

Matt finishes give the best appearance.

Decoration should be carried out as soon as possible after the jointing compound is thoroughly dry. Before painting it is important to equalise the difference in absorption between the plasterboard surface, the joint and the **Lafarge Profile**. Use one coat of **Lafarge Drywall Sealer** to ensure uniformity of colour and texture over the entire surface. A sealer coat is also essential before applying wallpaper or other wallcoverings so that the covering can be removed for redecoration without damaging the wallboard surface.

When wall papering apply adhesive right to the edge of the **Lafarge Profile**, to avoid the possibility of the wallpaper peeling back.



Jointing method

Table 6.13 Jointing compound selector

Product	Pack size	Bedding tapes	Finishing joints
Fast Set	12.5 kg bag	✔	–
Deco Joint Filler	12.5 kg bag	✔	–
Rapid Sand	22.5 kg bag	–	✔
Easy Finish	10 kg bag	✔	✔
New Pure Velvet	25 kg bag	–	✔
FineForm Mid-Weight	20 kg bucket	–	✔
Readymix Lite	20 kg bucket	–	✔
Deco Joint Cement	20 kg bucket	–	✔

Specification clauses

Lafarge Profiles

Scope

Extra alternatives clauses required for specifying **Lafarge Profiles**. partitions/linings to be fully specified as required.

Additional clauses

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

- 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.

To complete the clause select the appropriate data as indicated on the right.

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

Notes:

Red text lists alternative product specifications.

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

Location.....

Metal framing components

Framing components to be hot dipped galvanised steel to BS EN 10143: 1993 and BS EN 10142: 1990 and Approved Document A1: 1995 designated DX51D and Z275 NAO. Sections rolled to BS 2994: 1987.

Framing

Provide extra framing along lines of Profiles to support cut edges of plasterboard and provide screw fixings of Profiles, all in accordance with Lafarge Plasterboard's instructions.

Boarding

Provide extra layer of 12.5mm plasterboard to surfaces which are to receive Lafarge Profiles with boards cut away to suit, in accordance with Lafarge Plasterboard's instructions. *(This is required to maintain the performance of the system.)*

Profiles (repeat as required)

Lafarge Shadowline Profile ..... Type ..... Reference .....

Lafarge Softform Profile ..... Type ..... Reference .....

Mitreing/Jointing

Mitre and cut Profiles with a bench fixed drop saw, or

Cut Profiles with a hacksaw.

Fixings

Lafarge Grabber Trim Head Screws

Length ..... mm at maximum 600mm centres fixed through taping fins of Profiles and plasterboards into framing. *(See Fixings in Section 8)*

Taping and Jointing

Bed joint tapes in Lafarge Joint Compound over Profiles taping fins. *(Do no use air drying compound for bedding tapes on Profiles.)*

Bevel cut edges of Profiles at joins and mitres and fill with proprietary glass fibre/resin metal body putty. Sand smooth.

Cut Profiles accurately, neatly and butt joint.

Materials and 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.

Finish joints with ..... *(See Section 7 Finishing)*

Curved wall surfaces, which once required time-consuming wet plaster technology or expensive fibrous plaster mouldings, can now be formed with quick and inexpensive Lafarge drywall systems.

Utilising the drywall advantage it is now possible to create high quality curved plaster forms with Lafarge standard wallboards and at the same time meet tight time and cost restraints. Because drywall systems need no time to dry out, following trades can proceed immediately, minimising construction time and saving on contract budgets.

Introduction

Contour Walls

For prestigious interiors, such as multiplex cinemas, leisure complexes or luxury hotels, Lafarge drywall systems provide new opportunities for creating attractive and sophisticated three-dimensional forms.

Because of its 6mm thickness – **Lafarge Contour** wallboard is flexible enough to create curves without the need for specialist tools or site practices. **Lafarge Contour** wallboard can be used dry to form curves with radii down to 1000mm or, when wetted, with a radius as small as 600mm. Standard wallboards may also be curved if wetted, achieving a range of curvatures depending on their thickness, from 2000mm for 15mm thick plasterboard down to 1000mm for 9.5mm thick wetted plasterboard.

Tight radius two-way curves can be achieved by using two layers of **Lafarge Contour** wallboard to form complex three-dimensional shapes, without any requirement for wetting. This technology enables all sitework to be carried out quickly and economically, without the need for expensive prefabricated fibrous plaster panels or messy and time consuming wet-plaster trades.

For installation details refer to page 153.

*Tight radius two-way curves are achieved on this feature spiral staircase by using two layers **Lafarge Contour** wallboard to form a complex three-dimensional shape, without any requirement for wetting.*

Visitors to this five star hotel are immediately struck by the towering 36 metre high atrium. Each floor has a curved walkway and dado height balustrade looking onto the entrance area.

*All the balustrades and associated wall linings are created using Lafarge standard wallboards fixed to **Cormet Dryliner Channels** and **Cormet Metal Studs**.*

Installation of the systems called for particularly high standards of precision in setting out and detailing to achieve the smooth, uninterrupted flow of the curving balustrades.

What can go wrong

Items to check	Yes (✓)	No (✓)	Date completed
1. Is there a detailed dimensional layout for the Lafarge Fresco panels? *Careful planning and setting out can avoid wasting time and materials during installation.*			
2. Have the position of fixtures such as electrical sockets been planned? *Fixtures, and items such as electrical socket outlets, switches, television and telephone outlets should be positioned to fall within the flat surfaces of the panels.*			
3. Is horizontal framing provided for fixing the Lafarge Fresco panels? *The Fresco panels should be supported at all four edges.*			
4. Has Lafarge Firecheck wallboard been used as infill around the Lafarge Fresco panels? *Firecheck has the same performance as the Fresco Panels.*			
5. When using Lafarge wallboard with Lafarge Cove, is the wallboard square edged with bound edges outward? *It is easier to achieve a neat, straight edge with bound edges rather than cut edges.*			
6. Has a 12.5mm wallboard been provided behind the Lafarge Profiles? *This is necessary where the fire and acoustic performance of the partition has to be maintained.*			

Case study

Millennium Centre, Cardiff

What is believed to be the highest drywall lining ever built has been installed as part of the Millennium Centre in Cardiff. The fly tower over the main stage reaches 34m above stage level. It has been constructed using 90mm, 0.9 gauge metal studs and is braced to the structure every three metres. It is faced with Megadeco board for additional impact resistance. The highest standards of acoustic performance are matched by drywall's contribution to the visual impact of the interior. The concourse makes visitors feel they are entering a magical world and features inward sloping walls linings and a curved ceiling which follows the roof line.

Client: Welsh Millennium Commission

Drywall contractor: GHT Plastering Services Architect: Percy Thomas Architects

Main contractor: Sir Robert McAlpine

LAFARGE PLASTERBOARD