




millboard

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How to calculate
Millboard Envello
Cladding

Shadow Line Calculation Sheet

- The amount of boards can be based on a square metreage, however the height or width of an area and board orientation should be taken into consideration when working out how many boards are required
 - Boards needed per sqm = 1.53 (MCG360*)
- Plas-Pro 25x50mm Batten spacing (P0205B300) = 400mm centres (reduce to 300mm centres in high wind-load or high footfall areas)
 - Number of battens needed for if boards are being used vertically = $\text{sqm} \times 5.5/3$
 - Number of battens needed for if boards are being used horizontally = $\text{sqm} \times 2.8/3$
- Boards being used **horizontally** will utilise the Plas-Pro 25x100mm battens (P0210B300) on the corners
 - Number of battens needed = linear metres of the external corners of the building/3



Starter trims and perforated closures

- Boards being used **horizontally** will need the Horizontal Starter Trim (GT250J) at the bottom of the cladding
 - Number of starter trims needed = $\frac{\text{length of cladding area}}{2.5}$
- Boards being used **vertically** will need the Vertical Starter Trim (GT250L) at the bottom of the cladding
 - Number of starter trims needed = $\frac{\text{length of cladding area}}{2.5}$
- The Perforated Closures (GP300L) will be needed at the top and bottom of the cladding & at the top and bottom of any windows & at the top of any doors
 - Number of perforated closures needed = $\{(\text{width of cladding area} \times 2) + (\text{combined width of all windows} \times 2) + (\text{combined width of all doors})\}/3$



For full installation guidance on how these products are fitted together, please visit <https://millboard.co.uk/help-advice/installation-guides>



Shadow Line – Corners, windows & doors

- The Shadow Line boards can utilise the External Corner Profile (MCPE50*) and the Internal Corner Profiles (MCPH38*) for the corners of the building
 - Number of External corner profiles needed = linear metres of the external corners of the building/3
 - Number of Internal corner profiles needed = linear metres of the internal corners of the building/3
- The corner profiles will need to be fixed with a Perforated closure (GP300L) on the back of it
 - Number of extra perforated closures needed for the corner profiles = linear m of the external corners of the building/3
- The fascia boards (MFN320*) are used around the inside (reveals) of windows & doors
 - Number of fascia boards needed = total linear metres around the sides and top of windows and doors/3.2
- Some of the sides of the fascia will need to be finished with touch-up
 - Number of tins of touch-up needed = Number of fascia boards/50

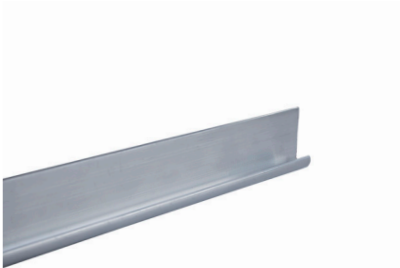
Shadow Line - Fixings

- The cladding boards will be fixed with the 30mm cladding fixings (FC30P250)
 - Number of screw boxes needed = Number of Shadow Line cladding boards x 13/250
- The starter trims, closures & corners will need to be fixed with the 20mm accessories screws (FC20P250)
 - Number of screw boxes needed = Number of perforated closures + corner profiles x 14/250
- The Durafix 35mm screws (FT35P100) will also be needed if fixing through the face of the cladding boards (i.e. at the top when there is no tongue to fix through)
 - Number of screw boxes needed = sqm/50
- The fascia boards used around windows are fixed with Durafix 35mm screws
 - Number of extra screw boxes needed = Number of fascia boards x 20/100

For full installation guidance on how these products are fitted together, please visit <https://millboard.co.uk/help-advice/installation-guides>

Board and Batten Calculation Sheet

- The amount of boards can be based on a square metreage, however the height or width of an area and board orientation should be taken into consideration when working out how many boards are required
 - Boards needed per sqm = 1.72 (MCB320*)
- Plas-Pro 25x50mm Batten spacing (P0205B300) = 600mm centres (reduce to 400mm centres in high wind-load or high footfall areas)
 - Number of battens needed for if boards are being used vertically= $\text{sqm} \times 4.6/3$
 - Number of battens needed for if boards are being used horizontally= $\text{sqm} \times 2.1/3$
- Boards being used horizontally will utilise the Plas-Pro 25x100mm battens (P0210B300) on the corners
 - Number of battens needed = linear metres of the external corners of the building/3



Starter trims and perforated closures

- Boards being used **horizontally** will need the Horizontal Starter Trim (GT250) at the bottom of the cladding
 - Number of starter trims needed = $\text{length of cladding area} / 2.5$
- Boards being used **vertically** will need the Vertical Starter Trim (GT250L) at the bottom of the cladding
 - Number of starter trims needed = $\text{length of cladding area} / 2.5$
- The Perforated Closures (GP300L) will be needed at the top and bottom of the cladding & at the top and bottom of any windows & at the top of any doors
 - Number of perforated closures needed = $\{(\text{width of cladding area} \times 2) + (\text{combined width of all windows} \times 2) + (\text{combined width of all doors})\} / 3$





Board & Batten – Corners, windows & doors

- The Board & Batten boards can utilise the Square edging (MEUN32*) for corners, this would be used on the edges of the buildings as well as around the sides and top of windows and doors.

- Number of Square Edgings needed = total linear m/3.2 (total linear metres up the side of the building and around the sides and top of windows and doors)

- The fascia boards are used around the inside (reveals) of windows & doors

- Number of fascia boards needed = total linear metres around the sides and top of windows and doors/3.2

- Some of the sides of the fascia will need to be finished with touch-up

- Number of tins of touch-up needed = Number of fascia boards/50

For different methods on how to finish off around a window please refer to our full install guide

Board & Batten - Fixings

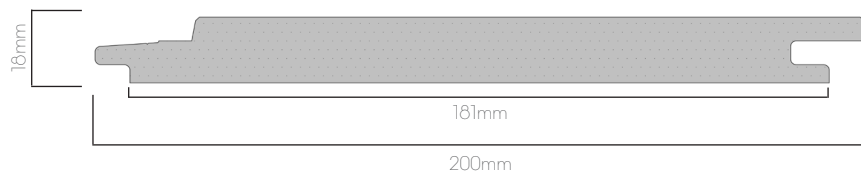
- The cladding boards will be fixed with the 30mm cladding fixings (FC30P250)
 - Number of screw boxes needed = Number of Board & Batten cladding boards x 9/250
- The starter trims & closures will need to be fixed with the 20mm accessories screws (FC20P250)
 - Number of screw boxes needed = Number of perforated closures x 10/250
- The Durafix 45mm (FT45P250) screws will also be needed for the square edgings & cladding boards at points (i.e. at the top or side when there is no tongue to fix through)
 - Number of screw boxes needed = Number of Square edging x 20/250
- The fascia boards used around windows are fixed with Durafix 35mm screws (FT35P100)
 - Number of screw boxes needed = Number of fascia boards x 20/100

For full installation guidance on how these products are fitted together, please visit <https://millboard.co.uk/help-advice/installation-guides>

Envello Cladding board options and colours

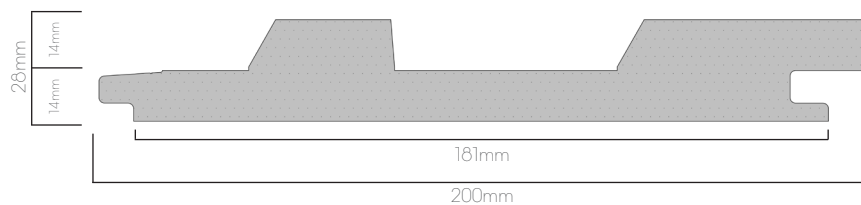
Envello Shadow Line Cladding boards

- Can be used Horizontally or Vertically
- 200x18x3600mm
- Actual 'installed width' 181mm
- Boards needed per sqm 1.53
- Colours:
 - Smoked Oak - MCG360D
 - Antique Oak - MCG360A
 - Golden Oak - MCG360G
 - Burnt Cedar - MCG360R



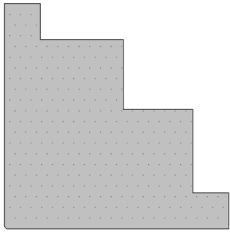
Envello Board & Batten Cladding boards

- Can be used horizontally or vertically
- 200x28x3200mm
- Actual 'installed width' 181mm
- Boards needed per sqm 1.73
- Colours:
 - Smoked Oak - MCB320D
 - Antique Oak - MCB320A
 - Golden Oak - MCB320G
 - Burnt Cedar - MCB320R



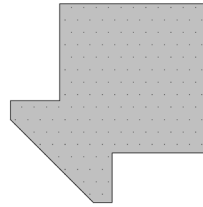
Trims, Fixings, Accessories

External Corner Profile



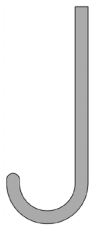
- 50 x 50 x 3050mm
- Colours: Smoked Oak - MCPE50D
Antique Oak - MCPE50A
Golden Oak - MCPE50G
Burnt Cedar - MCPE50R
- Profile used with the Shadow Line boards to finish off the external corner of a building, fixed with the perforated closure and 20mm fixings.

Internal Corner Profile



- 38 x 38 x 3050mm
- Colours: Smoked Oak - MCPH38D
Antique Oak - MCPH38A
Golden Oak - MCPH38G
Burnt Cedar - MCPH38R
- Profile used with the Shadow Line boards to finish off the internal corner of a building, fixed with the perforated closure and 20mm fixings.

Horizontal Starter Trim J



- 25 x 10 x 2500mm
- Product code: GT250J
- Aluminium trim used to start the cladding at the bottom, when the cladding is installed horizontally, fixed with 20mm fixings

Vertical Starter Trim L



- 25 x 13 x 2500mm
- Product code: GT250L
- Aluminium trim used to start the cladding at the bottom, when the cladding is installed vertically, fixed with the 20mm fixings

Perforated Closure



- 50 x 25 x 3000mm
- Product code: GP300L
- Aluminium closure used to prevent insects/rodents getting into the ventilated cavity behind the boards, but allowing airflow. Fixed at the bottom of the cladding with the starter trim, also at the top on its own, as well as with the corner profiles - all fixed with the 20mm fixings.

Cladding Accessories Fixings



- 3.5 x 20mm
- Box of 250
- Product code: FC20P250
- A2 Stainless Steel fixings used to fix the corner profiles, starter trims and perforated closures

Cladding Board Fixings



- 3.5 x 30mm
- Box of 250
- Product code: FC30P250
- A2 Stainless Steel fixings used to fix the Envello cladding boards on to the battens, fixing through the tongue of the boards

7h) Plas-Pro Cladding Batten



- 25 x 50 x 3000mm
- Colour: Black
- Product code: P0205B300
- Recycled plastic battens used to fix all of the components to, including cladding boards, starter trims, corner profiles and perforated closures.

Millboard Fascia Boards



- 146 x 16 x 3200mm
- Colour:
Smoked Oak - MFN320D
Antique Oak - MFN320A
Golden Oak - MFN320G
Burnt Cedar - MFN320R
- Fascias may be required for window/
door reveals or soffits, fixed with 35mm
Durafix fixings

Durafix 4.5 x 35mm Fixings



- 4.5 x 35mm
- Box of 100
- Product code: FT35P100
- The Durafix 35mm A2 stainless
steel fixings may be required for fixing the
cladding boards where a fixing through the
tongue isn't possible, also used for fixing
fascia boards.

Millboard Square Edging



- 50 x 32 x 3200mm
- Colour:
Smoked Oak - MEUN32D
Antique Oak - MEUN32A
Golden Oak - MEUN32G
Burnt Cedar - MEUN32R
- Square edging may be used as a
corner detail - especially with the Board &
Batten, fixed using the Durafix 45mm fixings

Durafix 4.5 x 45mm Fixings



- 4.5 x 45mm
- Box of 250
- Product code: FT45P250
- The Durafix 45mm A2 stainless steel
fixings may be required for fixing the square
edging or the Board & Batten through the
face.

Plas-Pro 25 x 100mm



- 25 x 100 x 3000mm
- Colour: Black
- Product code: P0210B300
- Plas-Pro 25 x 100mm may be required on the corners of buildings to provide a greater fixing point for the cladding boards.

Touch-up Coating



- 500ml
- Colour:
 - Smoked Oak - AP500D
 - Antique Oak - AP500A
 - Golden Oak - AP500G
 - Burnt Cedar - AP500R
- Touch-up used for coating any exposed cuts or edges on the Millboard Envello Cladding boards, edging profiles, square edge or fascia boards.

Additional items that may be required (supplied by others):

- Flashing/drip profiles (around windows/doors/openings or at the bottom of the cladding)
- Fixings for installing the battens on to the structure (suitable type of fixing for the structure and battens used)
- Screws for fixing the battens together (suitable type of screw for the location and battens used)
- Clear low-modulus silicone sealant (to help prevent water penetrating through the system)
- Silicone spray (for when using the Durafix fixings)
- Polyurethane wood glue (used when mitring the boards)
- Super glue (used when mitring the boards)

This guide is intended to help quantify how much material is required, we would recommend adding at least 7.5% extra to allow for wastage. The final quantities are to be checked by the installer before ordering. Millboard will not be held responsible for any under or over ordering where extra materials, carriage or restocking may be incurred

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