Laminex®

Technical Bulletin

Architectural Wall Panels

Curving of Panels—Classic Flat

This document must be read in combination with the Install Guide for Laminex Architectural Wall Panels – Classic Flat available at laminex.com.au

Kerfing

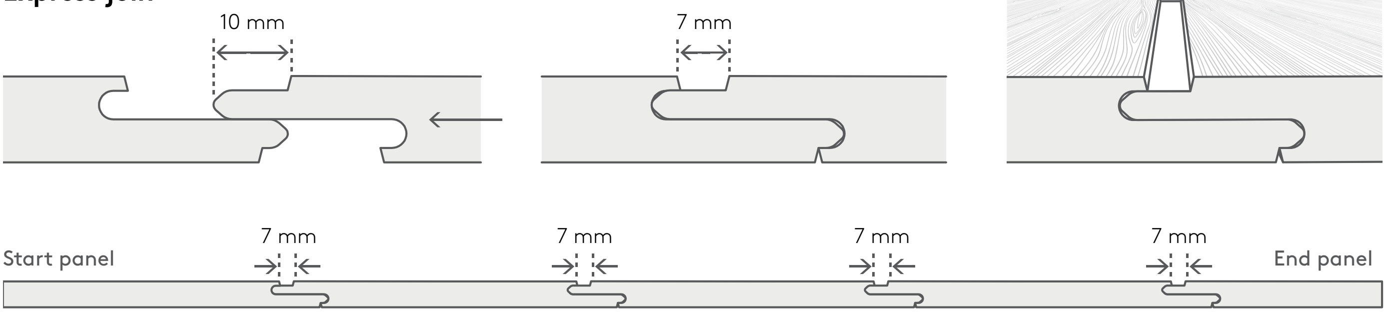
The technique for splicing through the back face of the panels to permit installation around a curve is called "Kerfing".

Planning the project

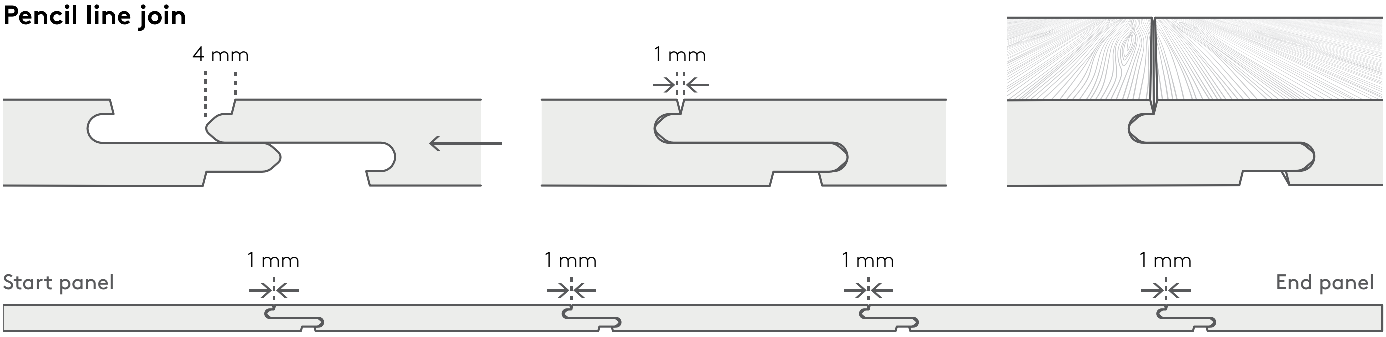
Designing wall components for your curved Laminex Architectural Wall Panels needs careful planning of the support structure where kerfed panels will be installed. Check the radius of the intended wall structure is aligned with the minimum radius for kerfing of the Architectural Wall Panels. The minimum radius under warranty is 500mm for Classic Flat profile.

Choose which join will be the external facing – the pencil join or the express join. Ensure kerfing takes place on the correct side of the panel by checking the profile of the join intended for use. Refer to the diagram for face identification.

Express join



Pencil line join



Designing supporting structure

For straight wall structure:

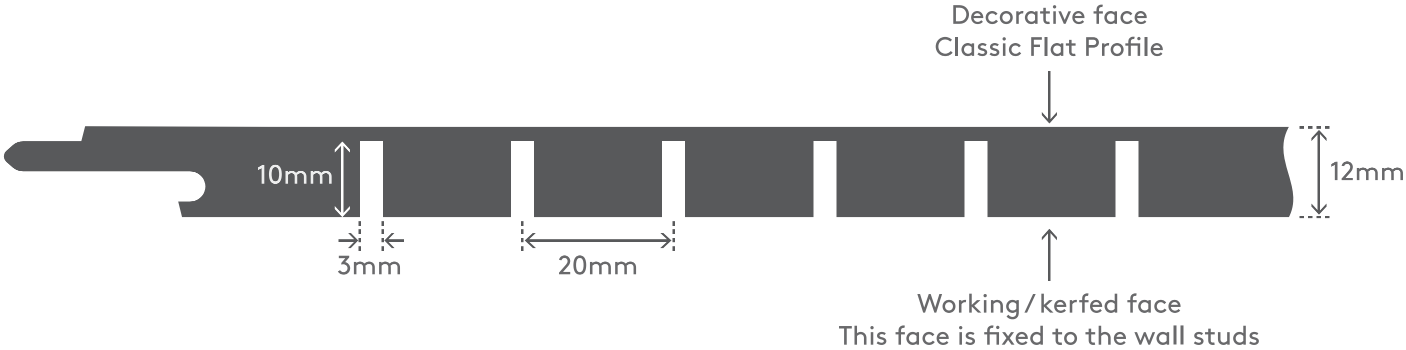
The supporting wall structure must have studs at a maximum of 600mm spacings and battens at a maximum of 450mm spacings.

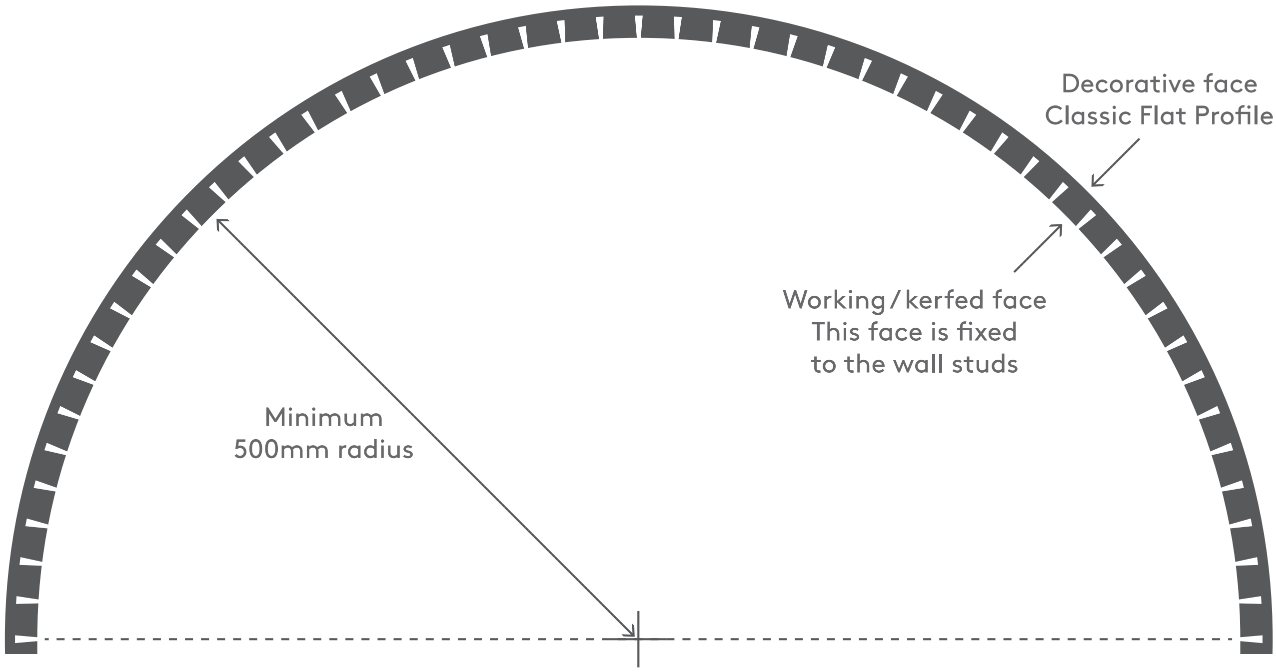
For curved wall structure:

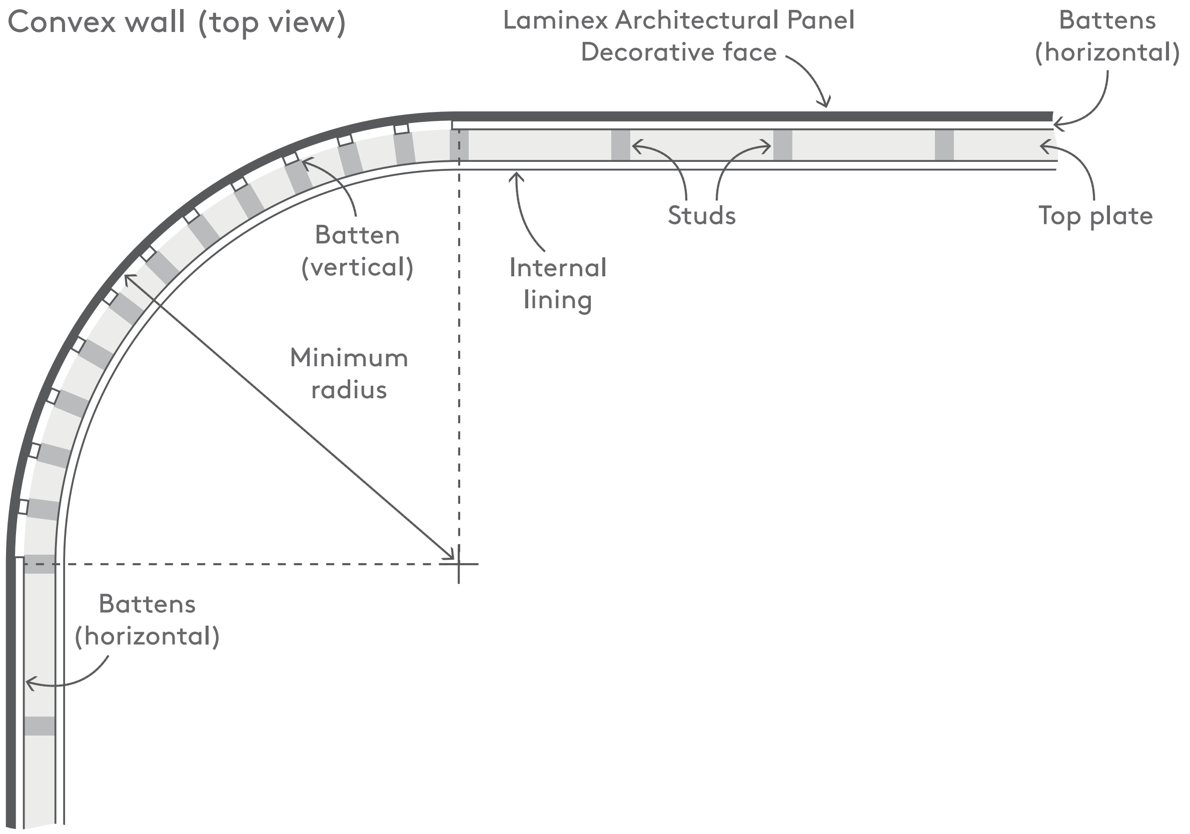
Additional studs are required at maximum 250mm spacings to support the minimum curve radius of 500mm.

Please note the degree of curvature will determine how many stud fixings are required.

Refer to the diagram below for the recommended interval and depth of the kerf cuts based on the Classic Flat profile.







Cutting and bending the panels

Cutting in workshop / CNC

The panels are suitable to be kerfed by CNC however transport to site for installation needs to be carefully managed as the panels are more fragile once kerfing is complete.

Cutting on-site / power tools

Check measure your wall openings and trim your Architectural Wall Panels to suit. Set up the workplace to fully support the panels during cutting and mark the locations for the trim and kerf cuts using a pencil or marking tool. Refer to the diagram for spacing between the grooves.

Place a straightedge or guide along the marked lines to ensure straight and even cuts. Make sure the Architectural Wall Panels are always fully supported when cutting and handling.

Measure the dimensions of the wall where you intend to install the kerfed Architectural Wall Panels.

Transfer these measurements to the kerfed panels, marking the areas where the panels need to be trimmed to fit precisely, allowing for expansion joints between panels and fixtures.

Set up your powered saw or manual saw cutting tools to the required settings outlined in the diagram. A jig can be created for more accurate even spacing. Normal woodworking tooling is required noting that cutting tips need to be 3mm wide.

Adjust the blade height between 9.5mm–10mm. Refer to the depths of cuts and positions in the diagram above. It is important not to exceed the depth of the cut as failure of the panels may occur. Cuts depths exceeding 10mm can result in fracture of the finished face material.

Carefully make the kerf cuts along the marked lines, using a slow and controlled motion. Keep the panel securely clamped to prevent any movement.

Gently bend the panel along the supporting wall structure, following the desired radius.

Fixing of the panels

Fixings must be carefully positioned to prevent splintering and breakout.

Fixings are to be located at 15mm from the edge of the Invisilock® join.

Fixing through the profile or face of the panel can be required to prevent the panels from lifting from the supporting structure creating a consistent curve of the panels.

Apply a 5mm minimum bead of construction adhesive in a zig zag pattern on each supporting wall structure prior to installing the Architectural Wall Panel. For all preparation, cleanup and curing times please refer to the adhesive manufacturer's guidelines.

When applying fixings with power tools (nail gun) only use enough pressure to drive the head of the nail or screw marginally below the surface of the panel. Splitting of the panel can occur if the pressure is too high. We recommend pilot holes and countersinking methods when using screws as your mechanical fasteners.

Installing the curved panels on the wall

Refer to Section 7: Installation in the *Architectural Wall Panel: Classic Flat Install Guide* for the installation instructions according to the required wall type.

Please ensure careful handling, transport, and fixing of the curved panel due to its increased flexibility/fragility once kerfed.

W FR substrate panels after kerfing/curving do not comply with Group 2 fire classification.

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