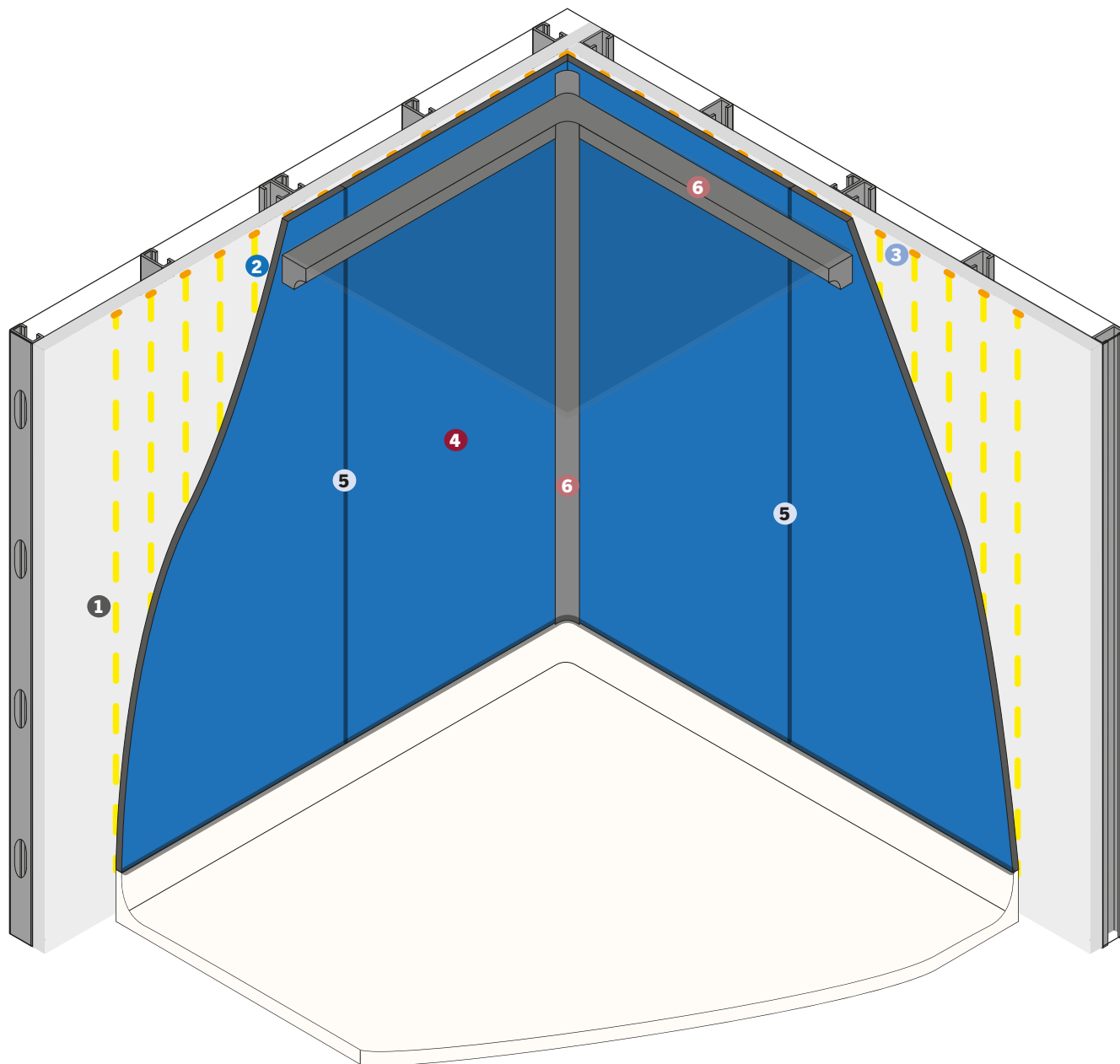


DIRECT GLUING ON HIGH-DENSITY PLASTERBOARD HIGH-PRESSURE LAMINATE / COMPACT SOLID GRADE LAMINATE

WALL COVERING
WALL PROTECTION

NEW BUILD & REHABILITATION



1 High-density / heavy-duty plasterboard substrate

3 Temperature regulating air gap

5 Fungicide silicone joint

2 Adhesives strips on back of panel

4 HPL or compact laminate wall covering

6 Corner and ceiling mouldings (Optional)

ADVANTAGES OF THE SYSTEM

Fire behaviour



- Fire resistance: EI60 (*see building regulation for plasterboard in question*)
- Reaction to fire: B-s1,d0 (*certified laboratory test*)

Acoustics



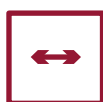
- Sound insulation rating: 54 dB

Impact resistance



- High impact resistance **up to 166 J**
(*In accordance with French building regulation DTU 25.41 P1-2 of Feb. 2008, CTSB stipulation for circulation spaces in buildings open to the public = 120 J*)

Space-saving



- Space saved since total thickness of installed panel only 10 mm

Time-saving



- Direct installation on site

Optimised module sizes



- Panel sizes adapted for modules measuring:
245 x 122 cm
260 x 100 cm
300 x 122 cm
- Use as half-height and full ceiling-height wall protection up to 3 m (*check building regulations regarding rules on installing the plasterboard partition in terms of max. height*)

APPLICATIONS

1. Partial or full wall protection (all zones, including circulation spaces)
2. Full-height hospital room wall covering (partitioning between hospital rooms)

OUR SOLUTIONS

	HIGH PRESSURE LAMINATE POLYREY HPL [®]	COMPACT SOLID GRADE LAMINATE REYSIPUR [®]
Thickness	3 mm	4 - 6 mm
Sizes	215 x 97 cm 245 x 124 cm 307 x 124/132 cm	215 x 97 cm 307 x 124/132 cm 260 x 205 cm 366 x 151 cm
Grade	fire-retardant	fire-retardant
Finish	FA	depends on size: FA / EXM / BRIHG / ROC / LIM / TCH
Decors	Refer to Polyrey Interior fitting Collection	Refer to Polyrey Interior fitting or Cubicle collections

Contact us for [product availability](#)

BASIC PRINCIPLES

The purpose of this document is not to outline application of Polyrey HPL or Compact. For more information, please refer to the AFNOR T54 3232 guide or the Polyrey **application instructions, contact us**.

The product should be applied in a watertight and airtight environment, with humidity and temperature conditions as close as possible to final use conditions. It is recommended that you install air heaters or coolers in order to regulate the temperature and adjust humidity levels accordingly.

The following conditions must be met:

- A-** A temperature of at least 10°C but no greater than 35°C
- B-** The premises must be kept free from any outside air or water.
- C-** During the 5 hours following fitting, the temperature must not drop below 10°C

Panels may not be installed until all of the walls and partitions are completely dry. If the masonry shows signs of damp, the source of humidity must be eliminated before panels can be installed.

Panels must be stored level in the room on a flat, sturdy pallet. They should be stored for a minimum of 48 hours.

Slight dimensional variations will appear in the compact high pressure laminate panels in the event of any atmospheric changes. During assembly, these variations must be taken into account, allowing for play of the following proportions:

- Lengthwise: + 1.0 mm/m
 - 2.0 mm/m
- Crosswise: + 2.5 mm/m
 - 3.0 mm/m

An air gap of a minimum of 3mm is required between the wall and the panel in order to regulate the temperature and moisture levels on each side of the panel. This precaution will prevent any subsequent problems with bending or pulling.

INSTALLATION OF THE SYSTEM

- | | |
|---------------------------------------|--|
| 1 Substrate & framing | Substrate A2-s1,d0 (such as plasterboard with a density of more than 1000kg/m ³) with standard metal framing (48 x 35) allowing utility connections to be run through them.

If plasterboard of a density of 1000kg/m ³ or more is not available, the panels must be installed on vertical studs (see specific installation B guide). |
|---------------------------------------|--|

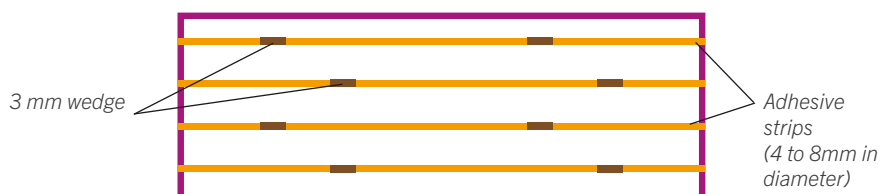
- | | |
|----------------------------------|--|
| 2 Strips of adhesive | Adhesive adapted and qualified by Polyrey following relevant laboratory tests.

The strip of adhesive must only be lined up vertically and must continue all the way up the panel. The recommended quantity of adhesive is one 290 ml cartridge per 2 to 3 m ² .

In order to ensure the flatness of the application and to leave an air gap, we would recommend that you add shims inserted into the strips of adhesive. |
|----------------------------------|--|

See diagram below

Applying strips of adhesive to panels



3 Air gap behind the panel

Create a 4 mm air gap behind the panels by placing the adhesive in vertical lines (ø 6 to 8 mm) up the full height of the high-pressure laminate:

- Spaced 250 mm apart for the best possible fit, up to a maximum of 300 mm for panels between 3 and 4 mm thick.
- Spaced 300 to 400 mm apart for 6 mm thick panels

Where the wall meets the ceiling, leave a 3 to 8 mm expansion joint and fill with silicone caulking fungicide.

(see diagram 5)

If there is a suspended ceiling, ensure that the panel is an extra 50 to 100 mm long in the plenum space in order to leave room for the false ceiling's fastening rail.

Where the wall meets the floor, leave a 3 to 8 mm expansion gap depending on the type of installation

(see diagrams 3 / 4)

4 Product & Thickness

The panels are glued in place by applying adhesive and creating an air gap (see instructions above). Place wedges on the floor to keep the panels at the desired height so that there is space for the soft floor or skirting board and expansion joint. Leave the wedges in place for 48 hours to ensure complete drying.

The 6 mm compact laminate may be installed in any area:

Zone	Half-height wall protection	Full-height wall covering
Corridor	3 - 4 mm	3 - 4 - 6mm
Hospital room	3 - 4 mm	3 - 4 - 6mm
Operating theatre	-	6mm

See our on-site tips for adjusting the panels.

5 Silicone caulking

Use vertical joints for assembling 2 to 3 mm wide boards filled with fungicide silicone. Where the wall meets the ceiling and the floor, a joint of between 3 and 8 mm will be created and filled with fungicide silicone (*for soft floors, the floor fitter will be responsible for creating this junction*). For inner edges, an expansion joint of between 3 to 5 mm filled with silicone must be created.

For external edges, it will be possible to overlap the thickness of the Compact or solid grade HPL using a 2 to 3 mm expansion joint filled with silicone.

(diagrams 1 / 3 / 5)

Silicone may be applied on edges cut using a manual or industrial circular saw. In order to ensure a perfect finish on the joints, we would advise that you create a 30 to 40° bevel using a laminate trimmer. The silicone can be made perfectly smooth using a plastic rubber shim.

Excess adhesive can be cleaned using a cloth soaked in white spirit, with a soapy solution used to clean off any traces of cleaning.

6 Joint accessories

For enhanced sealing, use angle fillet-type PVC junction studs on inner and external edges for where the wall meets the ceiling and inner and external wall edges.

(diagrams 2 / 4 / 6)

In renovation:

If plasterboard of a density of 1000kg/m³ or more is not available, the panels must be installed on vertical studs (see specific installation guide).

In renovation settings, if the masonry shows signs of damp, the source must be eliminated or dealt with (e.g. vapour barrier) before high-pressure or compact panels can be installed. A closed or open air gap is required between the wall and the panel to regulate the temperature and moisture levels on each side of the panel. This precaution avoids later problems with bending and pulling that may cause deformation. If the substrate walls still show signs of damp or unevenness, it is better to install the panels on vertical studs (see specific installation B guide).

Given the surface resistance properties of the high-pressure and compact laminate ranges, there is no need to install impact protection accessories.

Once fastened together, the density of the high-density plasterboard + high-pressure or compact laminate makes it possible for accessories (impact protection guards, skirting, etc.) to be fastened in place directly using conventional fastening systems.

Lights or other accessories can be installed directly into the Compact or HPL, provided that a hole of a diameter smaller than that of the fixing screw has been pre-drilled. Generally speaking, the thickness of the HSS drill bit for pre-drilling is reduced by 3/10ths.

Drilling using a wood hole saw of an appropriate diameter is perfectly suitable for positioning electrical enclosures, air/oxygen supply systems, etc.

 More detailed fitting instructions will be provided by our Technical Services.

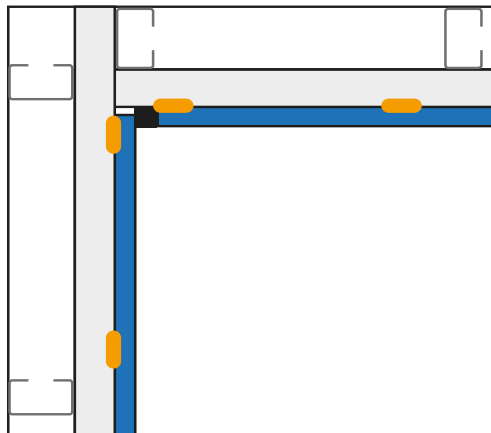


Diagram 1 : Finishing an internal corner using silicone

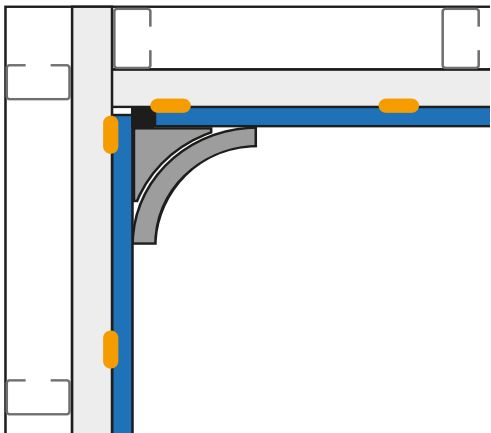


Diagram 2 : Finishing an internal corner using accessories

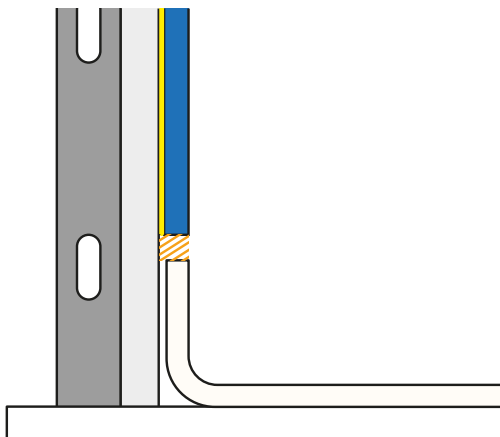


Diagram 3 : Finishing junction between wall and floor using silicone (new build or rehabilitation)

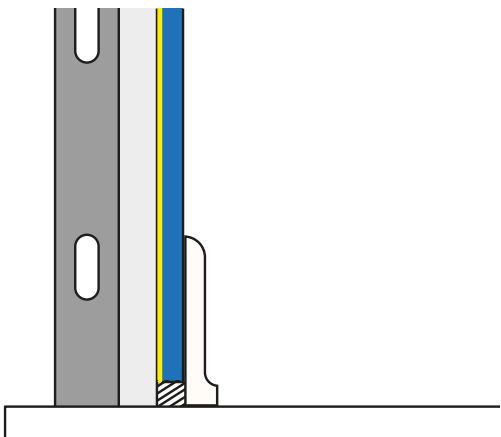


Diagram 4 : Finishing junction between wall and floor using PVC skirting (renovation)

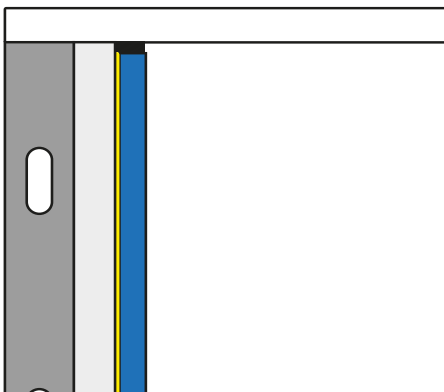


Diagram 5 : Finishing junction between wall and ceiling using silicone

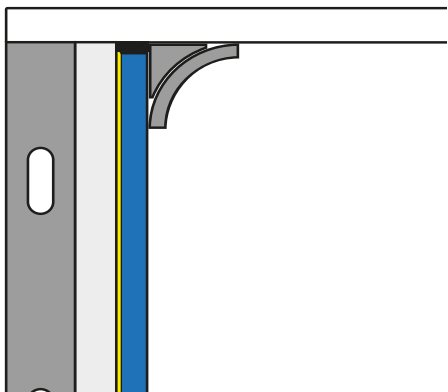


Diagram 6 : Finishing junction between wall and ceiling using PVC accessory

PANEL PROCESSING

This step is used to prepare the building project and cut the panels into suitable modules for handling and layout. *(Processing the panels before the project can be arranged by following relevant fabrication guidelines or by contacting wood panel distributors equipped with an industrial panel saw).*

On site ? Here are some tips and advice if it becomes necessary to adjust a panel or drill, cut, etc.



A handheld circular saw with guide rail

A saw blade with at least 44 trapezoidal, carbide-tipped teeth.



A cordless drill



HSS drill bits for drilling into iron (6 to 12 mm diameter)

General purpose diamond or carbide hole saw (65 mm diameter)



Handheld laminate trimmer with vertical and horizontal laminate trimming guide + 20 to 40° angular milling tool



A jigsaw with a blade for cutting metal or dense materials

A manual or pneumatic caulking gun for applying the adhesive and silicone

A knife or scraper for removing excess silicone

A cleaning cloth

Joint shim for lower section fitting (10 to 100 mm)

2m aluminium ruler

Spirit level

Sanding block for rounding off edges

Silicone cleaning agent

Finishing block for silicone caulking (2 to 3 mm)

3mm wedge

