



Installation Guide

for **RBC** Applications



March 2021 Edition

Introduction

This guide has been developed for the preparation, installation and maintenance of Lustrolite Decorative Panels as specified in Royal Bank of Canada (RBC) Branch Format, Rapid Reno and New Build projects.

It is imperative that installers carefully read this entire guide and understand its contents thoroughly before commencing installation.

Failure to follow the procedures in this guide may affect panel performance and warranty.

Questions or assistance regarding Lustrolite installation should be directed to:

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Overview of Lustrolite Panel

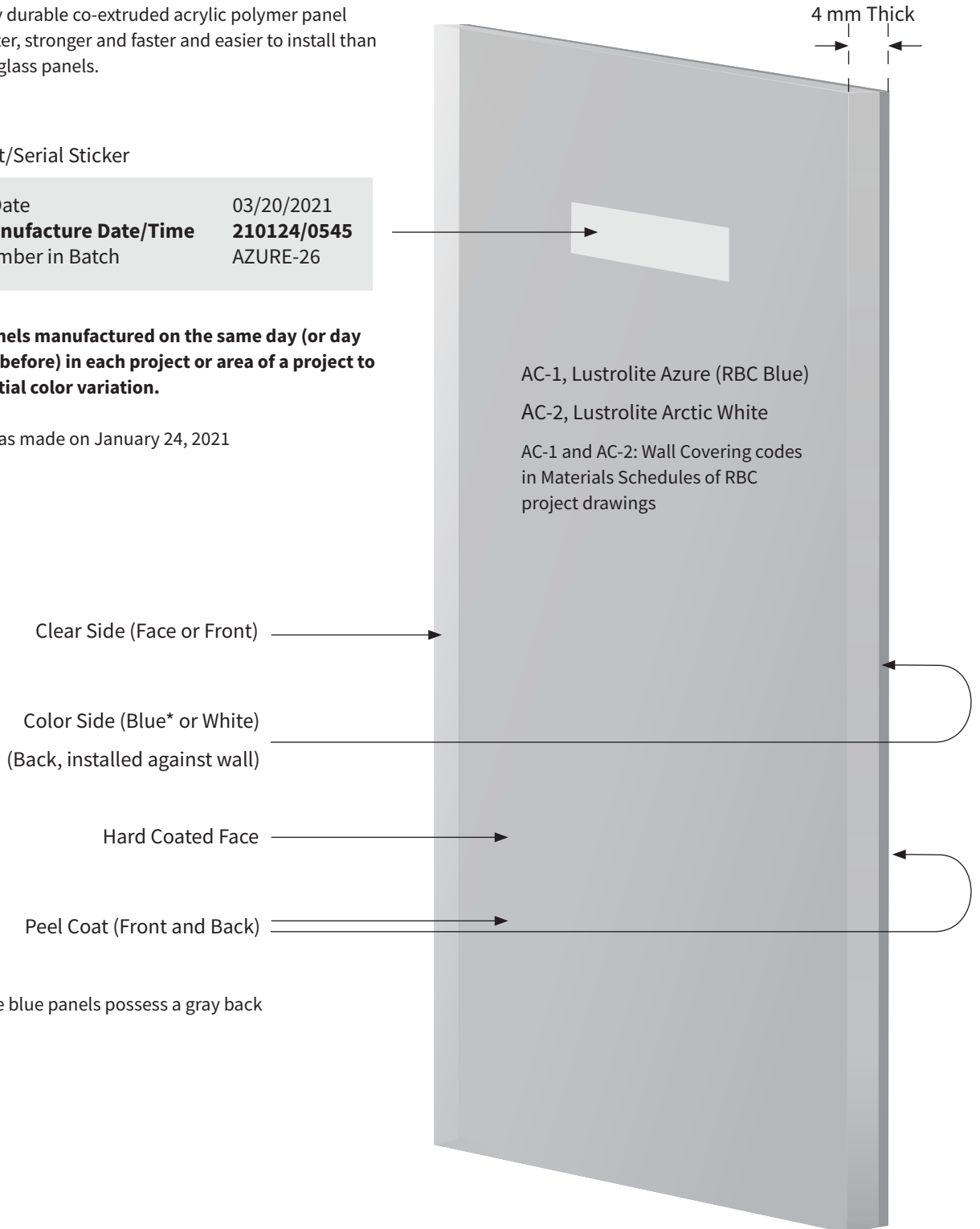
Lustrolite is a highly durable co-extruded acrylic polymer panel designed to be lighter, stronger and faster and easier to install than equivalent colored glass panels.

Batch or Lot/Serial Sticker

Coating Date	03/20/2021
Panel Manufacture Date/Time	210124/0545
Panel Number in Batch	AZURE-26

Only use panels manufactured on the same day (or day after or day before) in each project or area of a project to avoid potential color variation.

This panel was made on January 24, 2021



* Some blue panels possess a gray back

Figure 1: Lustrolite Panel

Personal Protective Equipment

When working with Lustrolite, adequately protect yourself by wearing appropriate PPE (Figure 2).

Recommended Tools

These tools are recommended for working and installing Lustrolite (Figure 3):

- Tape measure
- Builders pencil, fine felt tip pen or fine marking crayon
- Chalk line
- Builder's square
- Builder's clamps
- Power saw or table saw with sharp fine tooth carbide tipped blade or equivalent
- Jig saw with fine tooth blade
- Electric or cordless drill
- Router
- Blunt drill bits ¼", etc
- Hole saws
- 240 grit long sanding block (12" preferred)
- 120 grit sanding block or pad
- Fine file
- Caulking gun
- 1½" to 2" flexible plastic trowel or putty knife
- Builders work bench
- Saw horses

Optional Tools

- Electric planer (for edge finishing)
- Aluminum cutting tool (if installing aluminum profiles for edge protection)
- CNC router for cutting and drilling Lustrolite



Figure 2: Safety Work Wear

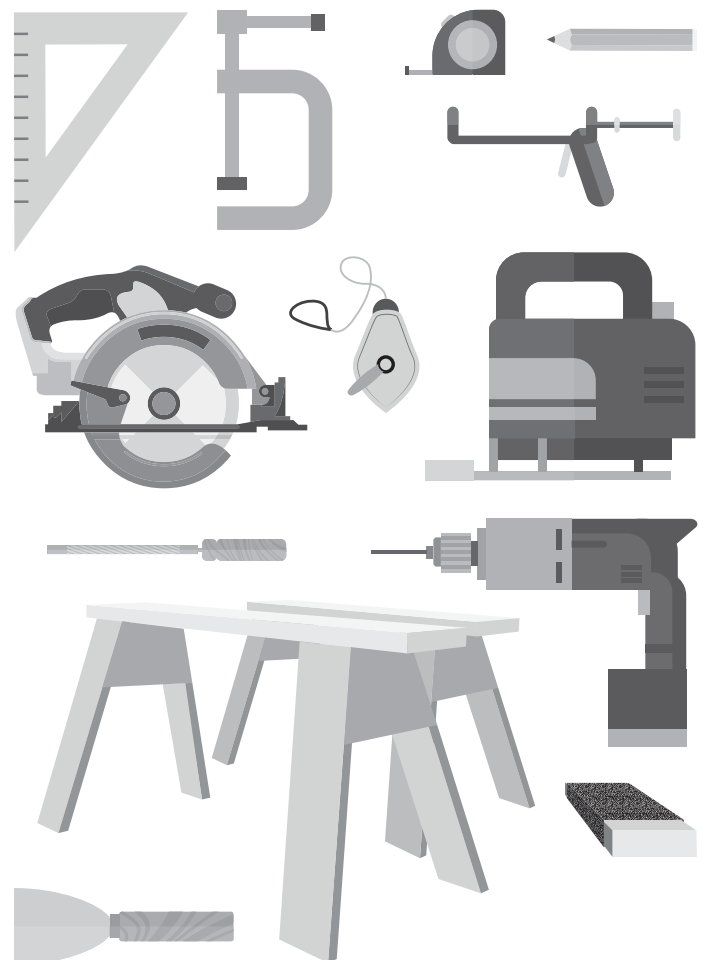


Figure 3: Installation Tools

Installation Materials

The following materials are required to complete Lustrolite installation (Figure 4):

- Sacrificial wood panel (e.g. plywood, MDF or particleboard)
- Painter's tape (1/2" or 50mm wide) in dark blue. White tape if installing Lustrolite Arctic (white) panels
- Clear **neutral cure** wet area silicone sealant
- White or clear double sided polyethylene (PE) adhesive tape, 1/2" to 1" wide x 1/16" (approximately 1.6mm) thick
- Color matching aluminum profiles such as external corner or end cap (if specified)
- VuPlex Plastic Polish (or equivalent)
- Clean microfiber cloth
- Nylon spacers (if installing fixtures or accessories)



Figure 4: Installation Materials

Mandatory Requirements

- **To avoid possible color variation, ensure Lustrolite panels used for each project or separate areas of a project are manufactured on or around the same date (Figure 1)**
- **If in doubt, please contact EGR or your local distributor representative**
- Lustrolite panels are bulky, so take care when lifting
- Store Lustrolite indoors and out of direct sunlight
- Store Lustrolite horizontally with adequate support to avoid bowing
- Minimize dust in the installation area
- Ensure sufficient lighting and adequate ventilation exists
- Install Lustrolite at or around room temperature; that is between 60° F and 85° F (15° C and 30° C)
- **Lustrolite must be installed against a flat supporting surface (e.g. wall lining) and never to framework alone**
- Apply color matching painter's tape on the wall behind panel joints and junctions with horizontal and vertical surfaces such as floors, counter-tops, other walls and fixtures
- Use only **clear neutral cure** wet area silicone sealant. If the package does not state the silicone is neutral cure, do not use
- **Expansion gaps of 4mm must be used at all panel joints and junctions with walls, counter tops, floors, etc**
- **If aluminum profiles are specified to protect edges, install them at the same time as Lustrolite panels**

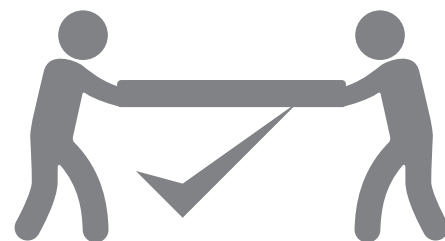


Figure 5a: Two Person Carry

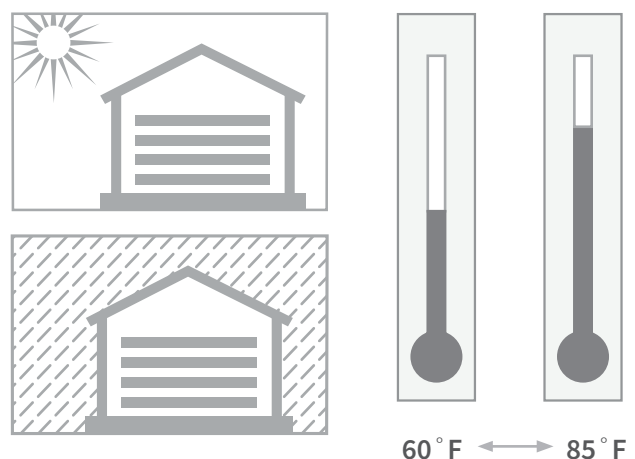


Figure 5b: Storage and Installation Conditions



Lustrolite Layout and Summary Installation

Important Preliminaries

- Ensure all walls are smooth, clean, dry and plumb
- Ensure all wall panel fixings (e.g. screws) are set flush or recessed
- Applying one coat of white acrylic primer to wall especially at set joints will allow better adhesion of tape and silicone

Layout & Joint Preparation (Figure 6)

- Assess installation area and determine layout of Lustrolite on walls
- Mark center of all panel joints on walls ensuring $\frac{5}{32}$ " (4mm) expansion gaps are allowed for
- At openings or fixtures use a joint if more than $\frac{1}{3}$ the width or length of the panel has to be removed to fit around the opening or fixture
- Apply Lustrolite color matching painter's tape (blue or white) behind panel joints and junctions at walls and other surfaces

Preparing & Installing Lustrolite

- Cut Lustrolite to size (refer Step 1)
- Drill holes for all applicable penetrations (refer Step 2)
- Finish Lustrolite edges as required (refer Step 3)
- Install Lustrolite (refer Step 4)
- Prepare and install aluminum edge protection profiles if specified (refer Step 5)
- Prepare for fixture installation if applicable (refer Step 6)
- Complete Lustrolite installation (refer Step 7)
- Finish installing fixtures if applicable

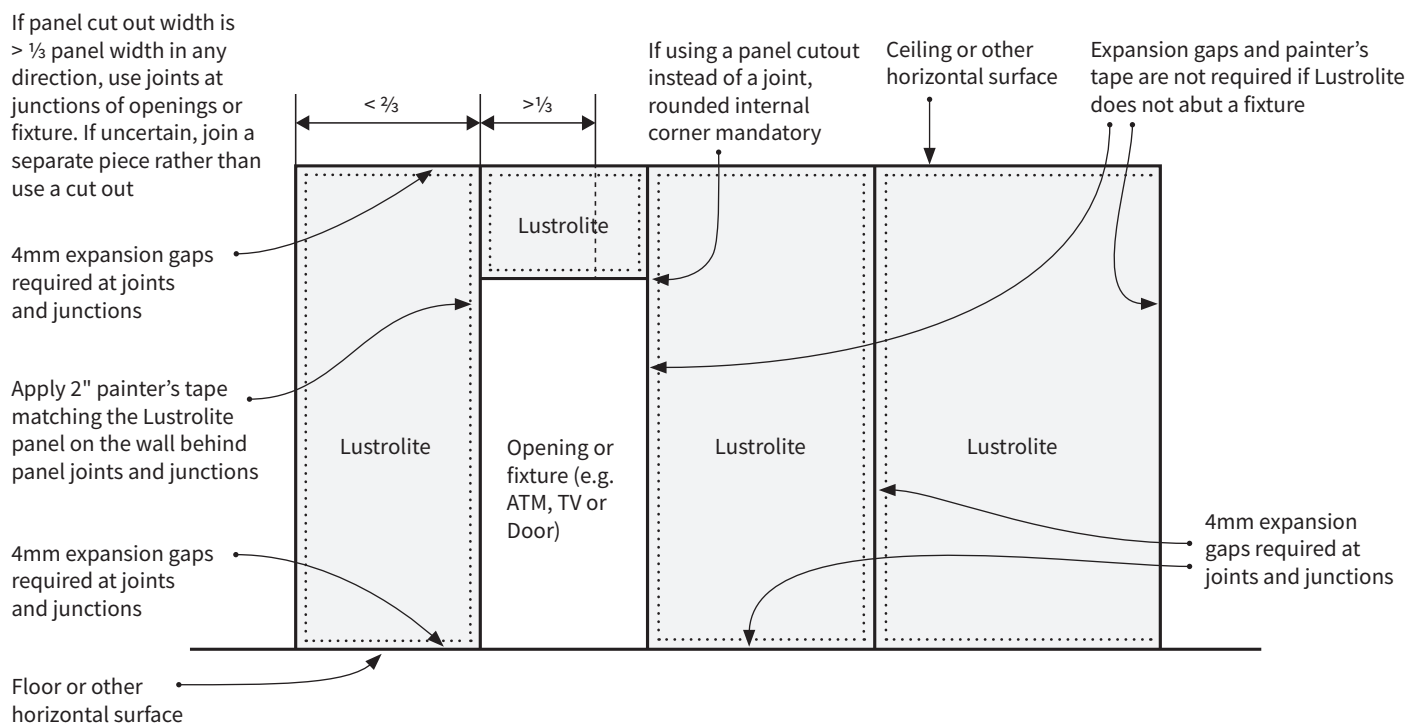


Figure 6: Lustrolite Wall Panel Layout Example

Step 1 – Sizing & Cutting Lustrolite

Important Preliminaries

- Do not remove peel coats
- **Saw blades and router bits must always enter Lustrolite from the panel's rear side**
- **Never create sharp internal corners**
- Use sharp carbide tip circular saw blades with minimum 60 teeth
- Use sharp fine tooth jig saw blades for cutting aluminum or plastic
- Clamp sacrificial wood board underneath Lustrolite when using power saw or jig saw to prevent bowing, vibration and chipping of the clear face side (Figures 7 and 9)
- Power saw and table saw blades should extend through Lustrolite by no more than 1/2"

Procedure

- Mark cut lines on Lustrolite using pencil, chalk line or crayon
- Select cutting tool and cut Lustrolite to correct size
- If using a power or jig saw, keep saw moving, do not stop
- If using a table saw, keep Lustrolite moving through the blade (Figure 8)
- To create a cut out such as for a power outlet, or at openings such as doorway, window or at fixtures such as ATM:
 - Drill holes at the corners (refer Step 2 - Drilling Lustrolite)
 - Cut into the curve of the drilled holes using applicable saw (Figure 10)

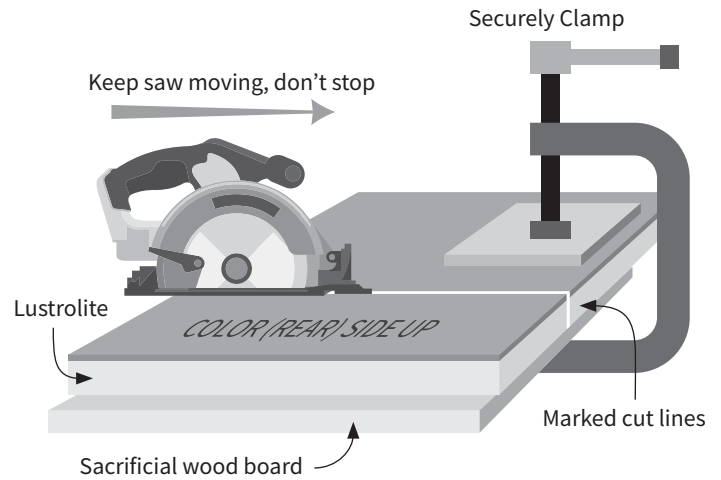


Figure 7: Cutting with Power Saw

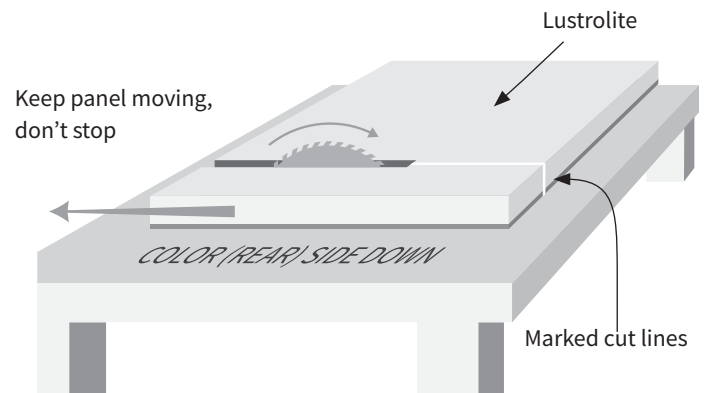


Figure 8: Cutting with Table Saw

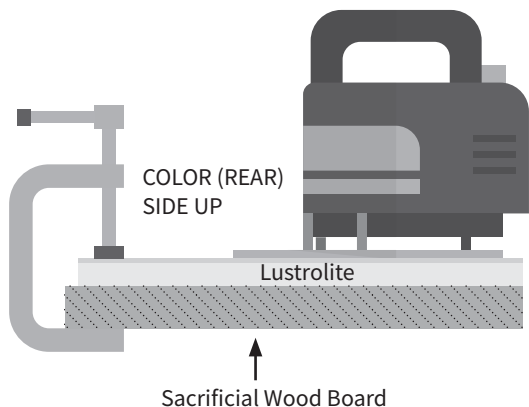


Figure 9: Cutting with Jigsaw

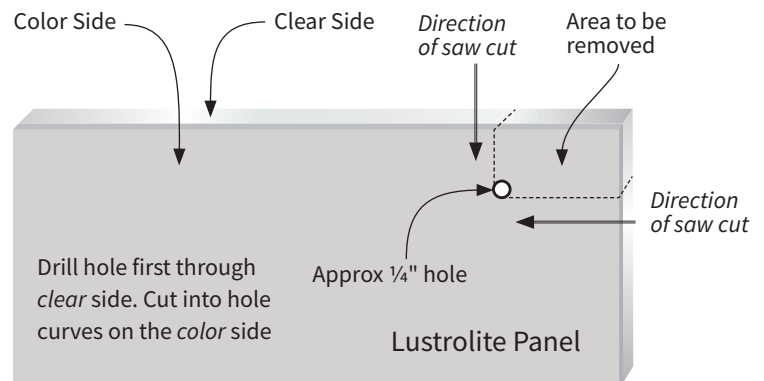


Figure 10: Creating a Cut Out

Step 2 – Drilling Lustrolite

Important Preliminaries

- Do not remove peel coats
- **When drilling Lustrolite, the drill bit must enter the clear (face) side of the panel**
- **Use only blunt drill bits for drilling steel or plastic (Figure 12a)**
- Set drill to slow to medium speed
- **Never insert a fastener (e.g. screw or nail) directly into Lustrolite. Fasteners for fixtures and accessories must pass through pre-drilled holes in Lustrolite and fix into the substrate**
- Clamp sacrificial wood board underneath to support Lustrolite when drilling to prevent chipping (Figure 12b)
- Where possible, drill and cut all holes before installing Lustrolite on the wall (does not apply for fixtures and accessories, refer Step 6)
- Holes up to 1/4" diameter must not be closer than 1/2" to panel edge
- Holes with a diameter larger than 1/4" must be 1" minimum from panel edge
- Holes must be 1/16" (2mm) greater in diameter than fasteners, plumbing and other penetrations to allow for expansion of Lustrolite
- To avoid Lustrolite cracking, do not create long penetrations near the panel edge

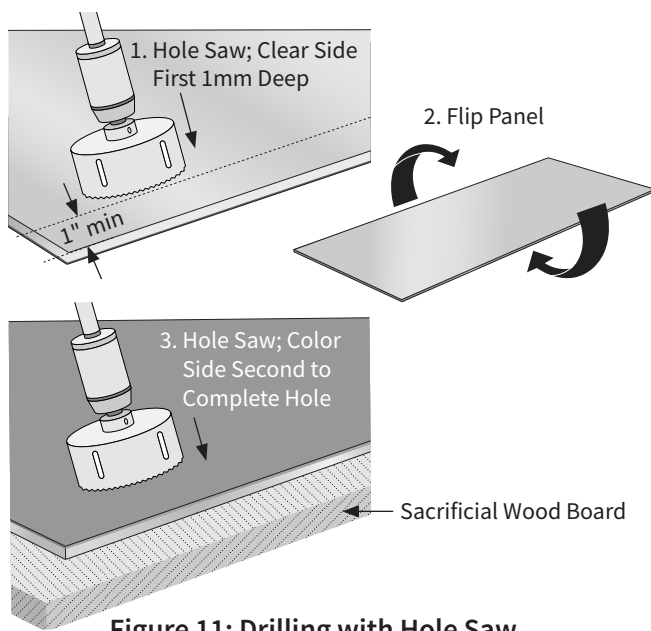


Figure 11: Drilling with Hole Saw

Drilling General Holes

- Mark and drill holes through the clear (face) side
- For holes larger than 1/4", drill pilot holes and work up to the required diameter

Drilling for Power Outlets, Vents & Other Items Requiring Non Circular Holes (Figures 9, 12a and 12b)

- Mark area to be removed on clear side
- Drill hole in each corner of penetration on clear side
- Turn over panel and clamp sacrificial wood board underneath Lustrolite with color side up
- Cut with jig saw from hole curve to hole curve and remove waste material
- Lightly sand or file penetration edges if burred

Drilling for Door Knob, Plumbing or Other Items Requiring Large Circular Holes (Figure 10)

- Mark center point of hole on clear side
- Using hole saw drill 1mm deep into clear side
- Turn over panel and clamp sacrificial wood board underneath Lustrolite with color side up
- Using hole saw drill through color layer and complete penetration
- Lightly sand or file penetration edges if burred

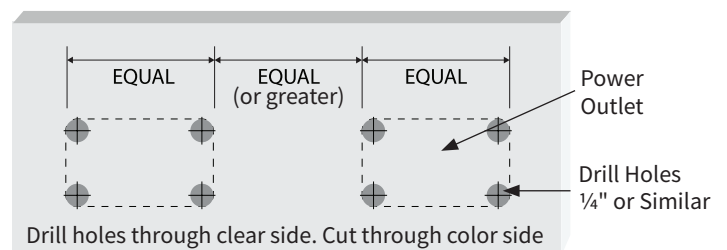
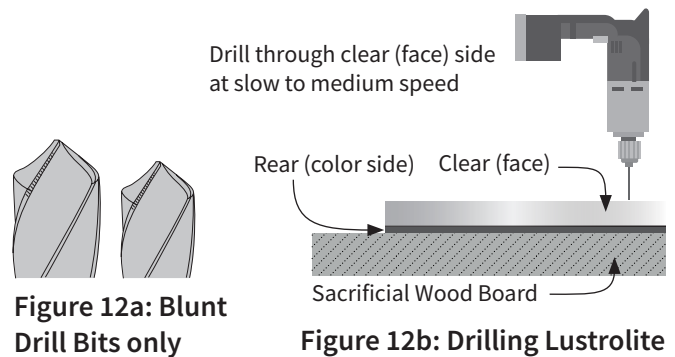


Figure 13: Power Outlets

Step 3 – Edge Finishing Lustrolite

Important Preliminaries

This procedure relates to exposed visible panel edges (those not terminating at another wall, panel, floor, ceiling or other fixture).

- A number of different exposed edge treatments can be achieved (Figure 14)
- Simple treatments are achieved using an electric planer and sanding block and include square, bevels, and miters
- Other more complex edges such as those incorporating curves can be achieved but will require special equipment such as a router
- If using electric planer, ensure blade is sharp and well maintained
- **If edge treatment is not specified, use factory edge or square edge especially at panel joints and when using aluminum profiles for edge protection**

Creating Simple Square Edge, Bevel, Miter or Pencil Finishes

- Set electric planer or router to applicable depth
- Plane or rout edge to achieve desired finish. Keep tool moving, do not stop (Figure 15)
- Sand edges with 120 grit long sanding block, then 240 grit block until desired finish is achieved (Figure 15)

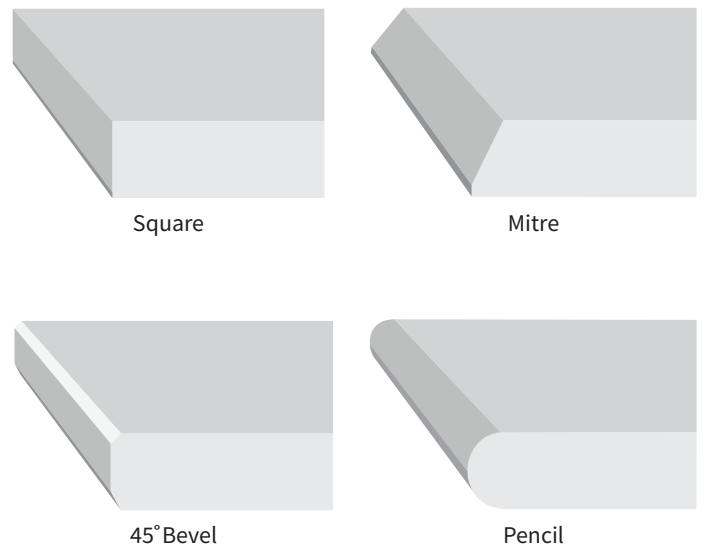


Figure 14: Different Edge Finishes

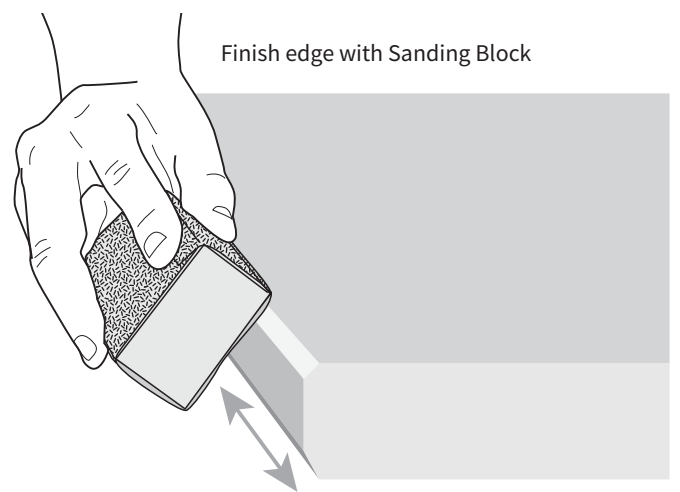
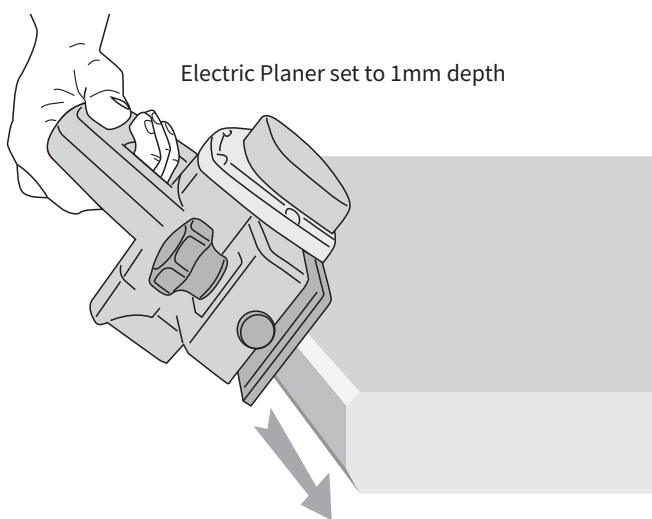


Figure 15: Creating Special Edge Treatments (if specified)

Step 4 – Installing Lustrolite

Important Preliminaries

- Trial fit each panel to ensure size and expansion gaps are correct. If not take applicable remedial action
- Ensure 4mm expansion gaps are incorporated between all Lustrolite panels and junctions with other surfaces such as walls, floors, countertops and moldings
- Color side is the back side and is installed against the wall or substrate (Figure 16)
- Apply 2" wide strips of panel color matching painter's tape on the wall behind all panel joins and junctions with horizontal or vertical surfaces

Procedure

- Remove peel coat on color (rear) side of panel
- Use a 120 grit sanding block or scouring pad to scuff the entire color layer using a circular motion. **Do not scuff if the blue panels have a gray back** (Figure 17)
- Remove all dust and residue from rear of panel
- Add strips of double sided tape at not more than 12" centers parallel to the panel length or width (Figure 18)
- Apply double sided tape around penetrations for power outlets, vents and similar (Figure 19)
- Apply ¼" silicone bead in wavy motion between tape strips. Increase waviness at panel ends (Figures 18 and 19)
- Remove tape liners
- Install panel by resting on removable spacers (e.g. Lustrolite scrap piece) at the bottom and between panels
- Firmly press Lustrolite in all areas to ensure tape bonds and silicone completely contacts the wall or substrate
- To help create flush panel edges apply strips of painter's tape across panel joints at 12" centers (Figure 20)
- Prepare and install aluminum profiles (if specified) as each applicable Lustrolite panel is installed (refer Step 5)

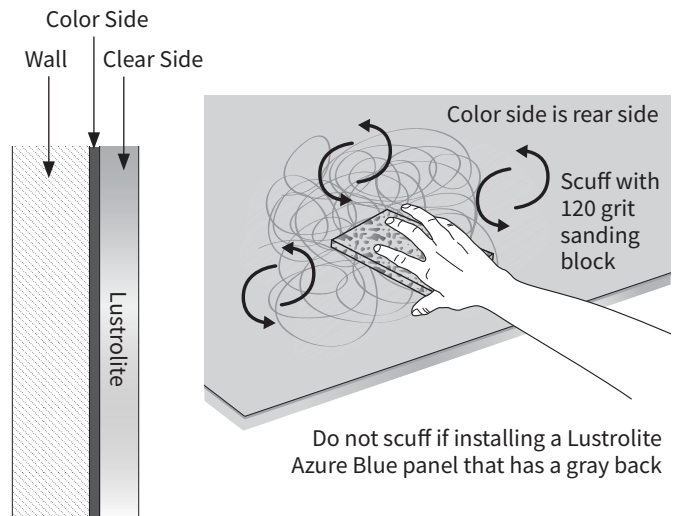


Figure 16:
Color Side
to Wall

Figure 17: Rear Side Preparation

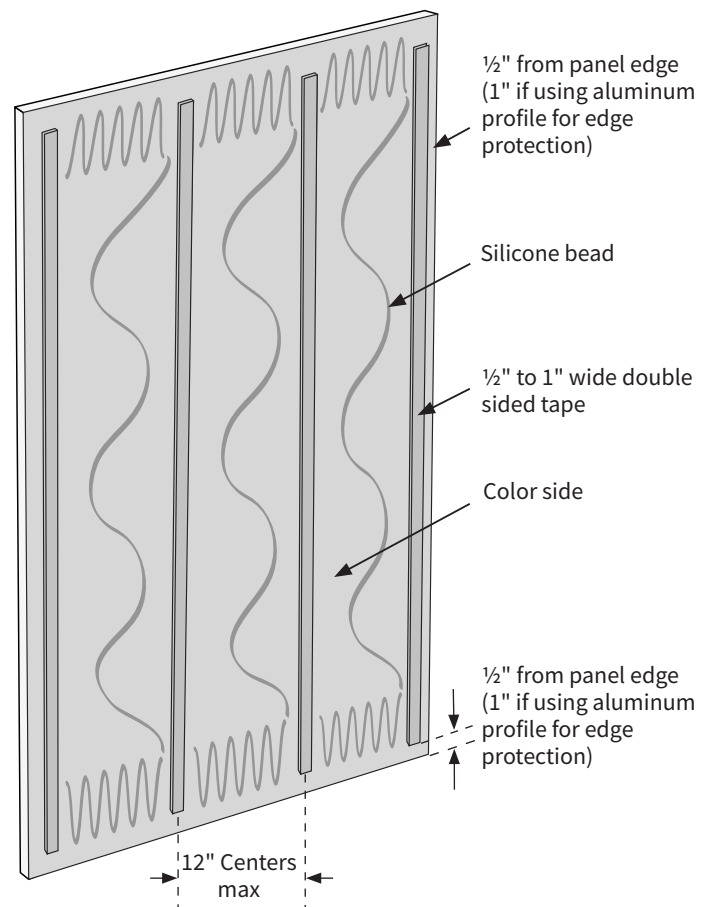


Figure 18: Silicone and Tape Layout on Rear of Panel

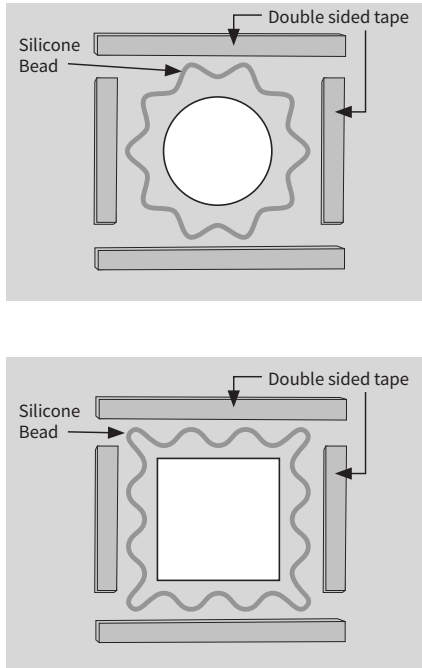


Figure 19: Silicone and Tape at Penetrations

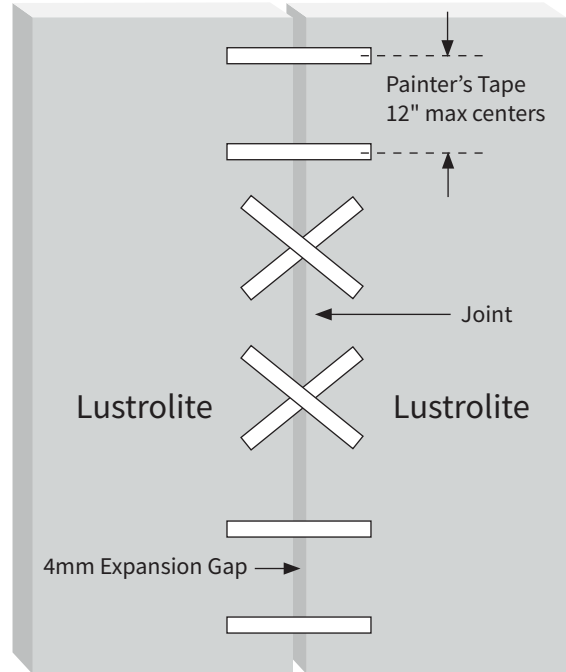


Figure 20: Flushing Panel Edges During Installation

Step 5 – Installing Aluminum Profiles (if specified)

Important Preliminaries

- For RBC projects, color matching aluminum profiles will often be specified to protect panel edges (Figure 21)
- **Aluminum profiles should be installed as each Lustrolite panel they are protecting is installed**
- **Profiles, especially external corners are virtually impossible to install after panels have been installed**

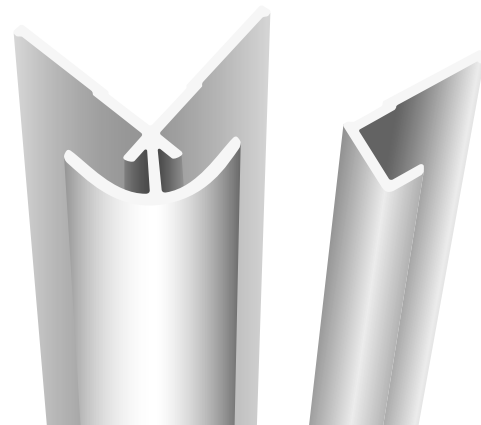


Figure 21: Lustrolite Aluminum Edge Protection Profile Types (Blue and White)

External Corner Profile

- Profile should ideally finish flush with the top and bottom edges of Lustrolite
- Measure and cut profile to length with applicable cutting tool. Remove burrs
- If installing Lustrolite in a wet area, apply silicone to both panel housings in the profile
- If installing Lustrolite in a dry area, apply silicone to the housing accommodating the longest or widest panel only (Figure 22)
- Install first Lustrolite panel and maneuver profile and panel into correct position on the wall allowing 2mm for expansion of Lustrolite at the profile
- Insert second Lustrolite panel allowing for 2mm expansion as per previous step
- Continue with installation of additional Lustrolite panels and profiles

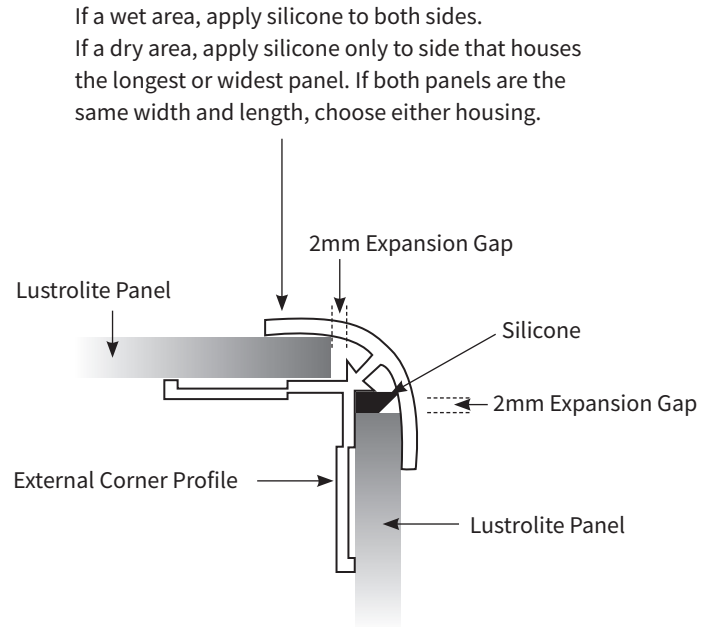


Figure 22 : Completed External Corner Profile Installation

End Cap Profile

Important Preliminaries

- If protecting a single edge only, follow steps A and C.
- If creating a border, follow steps B and C.

Step A - Single Edge Only

1. Profile should ideally finish flush with the top and bottom edges of Lustrolite
2. Measure and square cut profile to length with applicable cutting tool. Remove burrs.

Step B - Border or Perimeter (Figure 23 and 24)

Two different methods are recommended for junctions of End Caps at corners.

Miter Joint

1. Measure caps ensuring a minimum 2mm expansion gap is allowed for between Lustrolite and the internal cap housing
2. Cut caps at 45° using an applicable cutting tool such as miter saw with fine tooth aluminum cutting blade for best result. Remove burrs

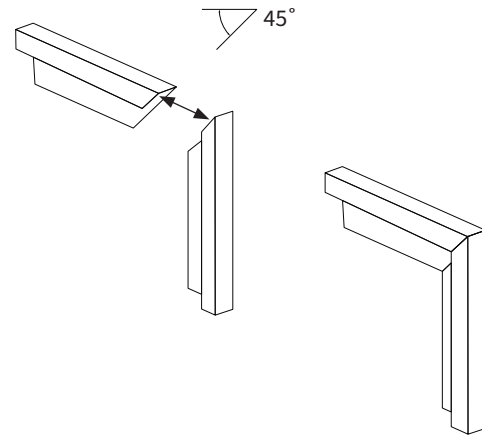
Notched Joint

1. Measure caps ensuring a minimum 2mm expansion gap is allow for between Lustrolite and the internal cap housing
2. Measure and carefully remove the back section of one end cap at joins using applicable tool such as tin snip. Remove burrs

Step C – Installing Lustrolite & Caps (Figures 23 and 24)

1. Apply silicone to all profile housings including open ends in the Notched Joint if used
2. Install Lustrolite panel and maneuver profile/s and panel into correct position on the wall allowing 2mm for expansion of Lustrolite inside the profile/s

Miter Joints



Notched Joints

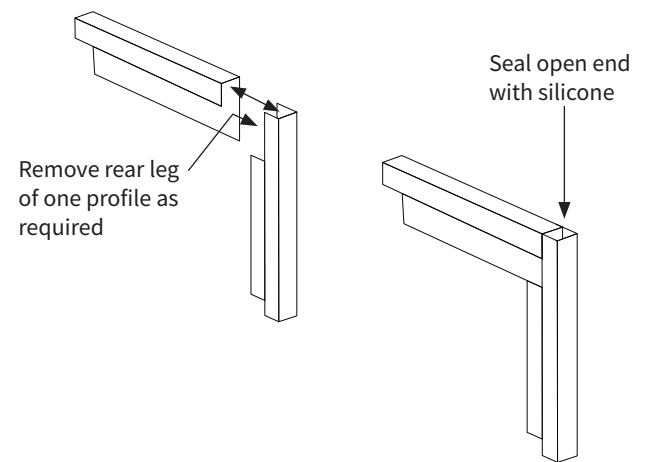


Figure 23: Perimeter Corner Joints

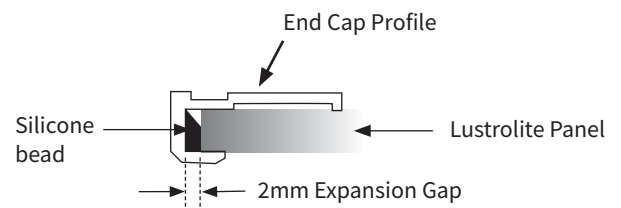


Figure 24: Completed End Cap Profile Installation

Step 6 - Installing Fixtures and Accessories (where applicable)

Important Preliminaries

- Fixtures such as cabinets, handles, grab bars and mirrors are easily installed over Lustrolite
- **Never insert any fastener (e.g. screw or nail) directly into Lustrolite. Fasteners must pass through pre-drilled over-sized holes in Lustrolite and fix into the substrate**
- It may be easier to drill holes for fixtures after Lustrolite is installed on the wall
- Use nylon spacers (not less than ¼" long) to keep the fixture slightly off the Lustrolite panel (Figures 25 and 26b)

Procedure

- Select appropriately sized spacers. The most common will be ¼" or ⅜" long by ¼" outside diameter with an inside diameter suitable to accommodate screw gauge
- Before removing peel coat, mark and drill holes at slow to medium speed using oversized blunt drill bit
- Holes must allow for approximately 2mm expansion clearance between the spacer and Lustrolite (Figure 26a)
- A suitable hole diameter for ¼" OD spacer is ⅜" or 10mm
- Insert screws through fixture and spacer and fix into substrate behind Lustrolite
- Where applicable, apply neutral cure silicone at the spacer expansion gaps and those between cover plates or fixture and Lustrolite
- Install fixtures (and cover plates) after peel coat is removed (refer Step 7 - Completing Lustrolite installation)

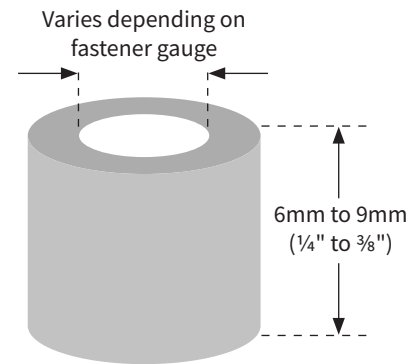


Figure 25: Nylon Spacer

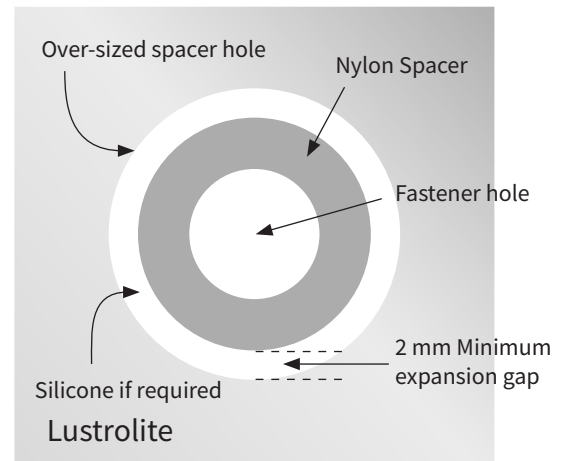


Figure 26a: Hole Layout for Spacers and Fixture Fasteners

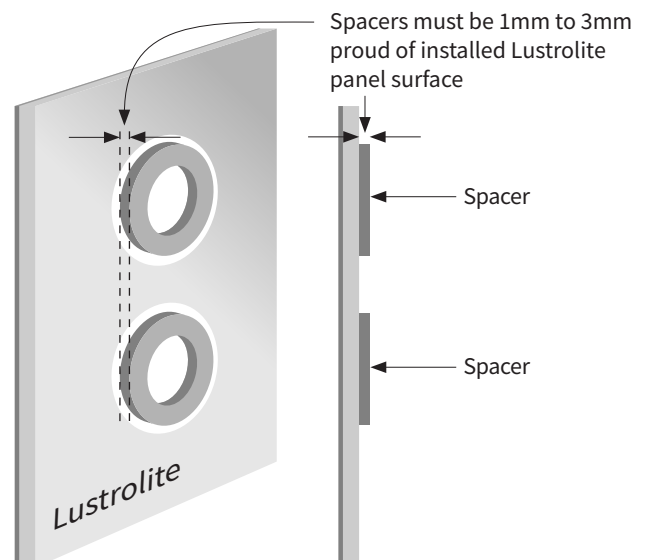


Figure 26b: Spacer Proud of Lustrolite Surface

Step 7 – Completing Lustrolite Installation

Important Preliminaries

- After panels have been installed and silicone has cured sufficiently, carefully remove painter's tape at panel joints and examine all peel coats
- If peel coats are in good condition and adhered well to the face of each panel follow Step A. If peel coats are peeling away at edges, go to Step B

Step A - Peel Coats in Good Condition

- Seal all joints (and ends) with **clear neutral cure** wet area silicone (Figures 27a and b)
- Remove excess silicone with plastic trowel to create a flush finish with panel surface (Figure 28)
- Excess silicone can be removed with microfiber cloth dipped in mineral spirits or kerosene
- When other trades have finished, carefully remove each peel coat to create a neat and straight finish to the silicone (Figure 29)
- Spray Lustrolite with VuPlex plastic polish or equivalent and wipe with soft, clean microfiber cloth

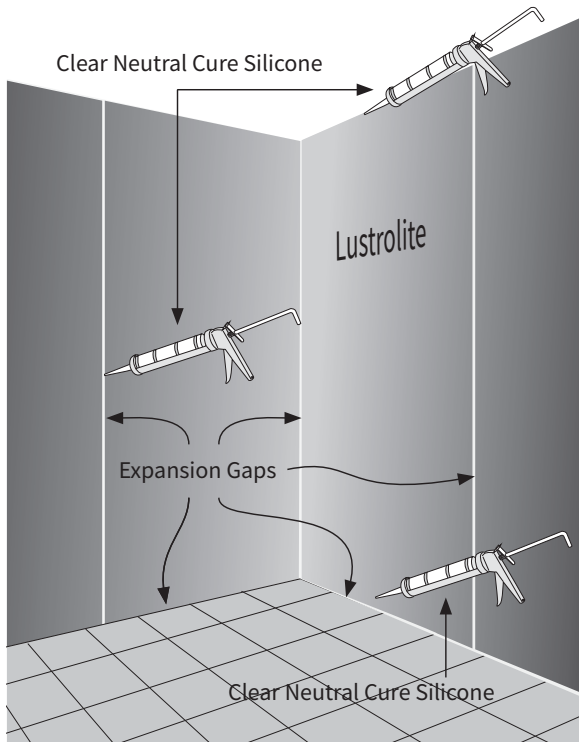


Figure 27a: Sealing Joints

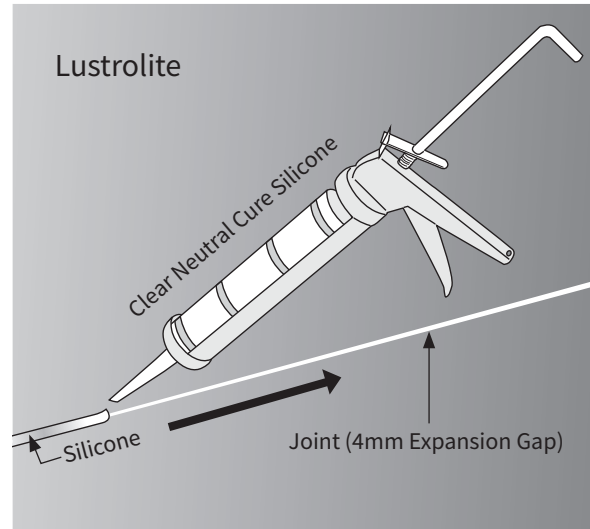


Figure 27b: Sealing Joints

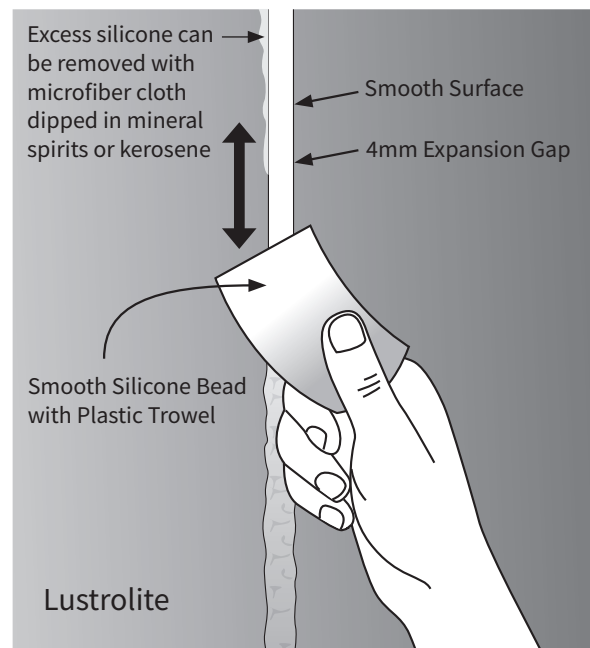


Figure 28: Finishing Silicone at Joints

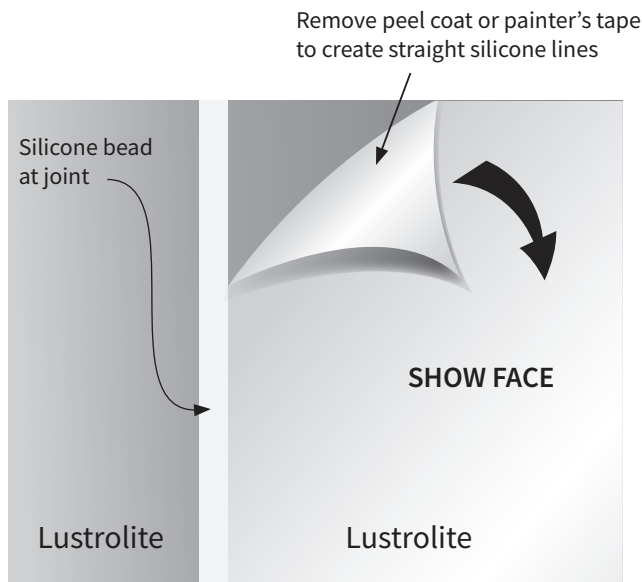


Figure 29: Removing Peel Coat

Step B - Peel Coats Peeling at Edges

- Peel back approximately 1½" to 2" of peel coat from edges and carefully apply painter's tape to either side of joint on the panels' surfaces
- Seal the joint with clear neutral cure wet area silicone (Figures 27a and b)
- Remove excess silicone with plastic trowel to create a flush finish with panel surface (Figure 28)
- Excess silicone can be removed with microfiber cloth dipped in mineral spirits or kerosene
- When other trades have left, carefully remove peel coat and tape to create a neat and straight finish to the silicone
- Spray Lustrolite with VuPlex and wipe clean with soft, clean microfiber cloth

Cleaning & Maintenance

VuPlex is an excellent everyday polish for use with Lustrolite and is highly recommended by EGR. It can be simply sprayed on and wiped down with a clean, dry microfiber cloth. Visit vuplex.co for more information.

Lustrolite can also be cleaned using a soft microfiber cloth or chamois dampened with warm soapy water. Harsh chemicals are generally not required.

More stubborn stains and marks can be removed using the following chemical substances:

- Kerosene
- Bleach
- Mineral Spirits
- 10% Citric Acid solution
- Lemon Juice
- Vinegar
- Liquid Soap
- Glass Cleaner

Lustrolite should not be exposed to the following substances:

- Acetone
- Methylated Spirits
- Abrasive Cleaners
- Aggressive Solvents such as Toluene

Warranty

In commercial applications, Lustrolite has a limited three year pro-rated indoor warranty.

For further information, please refer to the Lustrolite Warranty Statement at lustrolite.com or contact EGR Building Products at:

***info@lustrolite.com* or your EGR representative.**

VuPlex - Preferred polish and protectant for Lustrolite





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