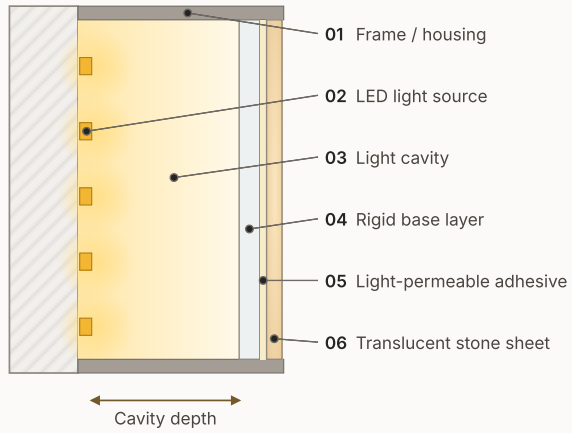
INSTALLATION GUIDE

Translucent Stone Veneer Installation

Backlit & Illuminated Applications

Six phases carry you from building the lighting cavity to the final light test. For a fully custom, made-to-order illuminated panel, see our Backlit Panels program instead of installing raw sheet stock yourself.



SECTION VIEW · LAYERS ENLARGED · NOT TO SCALE

THE SIX PHASES

01 BUILD THE LIGHTING CAVITY p. 2
02 PREPARE SURFACE p. 4
03 MEASURE & CUT p. 6
04 APPLY ADHESIVE p. 7
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PHASE 01 OF 06

Build the Lighting Cavity



1.1 Construct the Frame

- Build a sturdy, level frame or housing to hold the light source and base layer, and fix it securely to the wall or mounting structure.
- Size the cavity depth to accommodate your chosen light source plus its required light distance.

1.2 Choose & Mount the Light Source

- Standard LED gives focused, bright light — good for highlighting detail but can cause glare. Diffuse LED gives a softer, more uniform glow suited to gentle overall illumination. An adjustable LED offers the most flexibility if you want to fine-tune the effect later.
- Mount LED strips or panels evenly inside the frame, spacing them to avoid dark gaps or bright hot spots.
- Connect the LEDs to the power source and check that every section lights up correctly before sealing the cavity.

PHASE 01 OF 06 · CONTINUED

Build the Lighting Cavity



Even LED spacing + diffuser
Uniform glow

Uneven spacing
Bright hot spots and dark gaps

Clear base layer
Individual LED points show through

Front views of a lit panel, illustrative. Test with your actual stone, base layer and lighting.

1.3 Choose the Base Layer

- Bond translucent stone to a rigid base layer — acrylic, plexiglass, Lexan sheet, or tempered glass all work.
- A frosted or milky finish diffuses light more evenly than clear material and helps hide individual LED points.
- Backing thickness generally increases with panel size to stay rigid and diffuse evenly — contact our specification team for the confirmed thickness for your format.

1.4 Test the Cavity Before Sealing

- Once every section is lit and working, confirm the layout alignment and check that the overall illumination is even before closing up the cavity.
- Catching a wiring or spacing problem now is far easier than after the base layer and stone are bonded on top.

⚠ ELECTRICAL & LIGHTING SAFETY

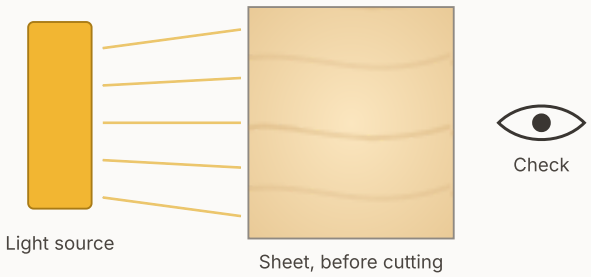
- All wiring must be installed by a licensed electrician in compliance with local electrical code.
- Use a driver/transformer rated for the installation environment — a wet-location-rated driver is required for bathrooms, exteriors, or other damp locations.

PHASE 02 OF 06

Prepare Surface

2.1 Inspect the Sheets on Delivery

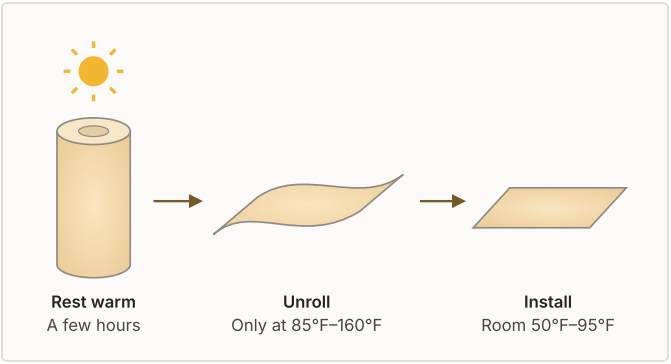
- Inspect every sheet for dimensions, light transmission, and surface condition before cutting or bonding it.
- Do a layout test first: lay sheets out to see where each one fits best and confirm the sequence, since appearance can shift once light passes through.
- Hold each sheet up to a light source before cutting — the clearest way to catch anything unusual before it's built into the wall.
- Variation in light transmission, internal mineral clouding, fine cracks, and slight edge chipping are natural-stone characteristics, not defects.



Hold each sheet up to a light source to see its transmission and any irregularities.

⚠ INSPECT BEFORE YOU INSTALL

- Report any genuine defect within 14 days of delivery.
- Once a sheet has been cut or bonded, it's no longer eligible for a quality claim.



2.2 Acclimate & Flatten the Sheets

- If sheets arrive rolled, let them rest in a warm environment or indirect sunlight for a few hours before unrolling — a heat gun may be used with caution if needed.
- Only unroll between 85°F and 160°F; cracking sounds mean the sheet is too cold.
- Keep the installation area between 50°F and 95°F (10°C–35°C).

Unroll at 85°F–160°F | Room 50°F–95°F (10°C–35°C) | Cracking sound = too cold

PHASE 02 OF 06 · CONTINUED

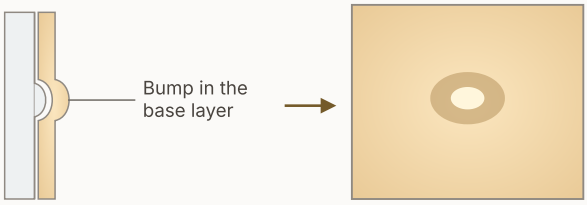
Prepare Surface

2.3 Pre-Seal to Protect the Surface

- Contouro recommends applying one coat of sealer to the sheets before installation — separate from any final protective treatment — to help protect the surface from fingerprints and handling marks.
- Wear clean gloves throughout cutting, handling, and installation to avoid transferring oils or fingerprints onto the stone face.

2.4 Prepare the Base Layer Surface

- Make sure the base layer and the reverse face of the stone are both clean, dust-free, and grease-free immediately before bonding.
- Check the base layer for bumps or irregularities — they'll show through as light or dark patches once illuminated.



2.5 Gather Essential Tools

- Bring together a circular or track saw, light-permeable adhesive, measuring tools, a pencil, and a pressure roller.


Circular or track saw


Light-permeable adhesive


Measuring tools


Pencil

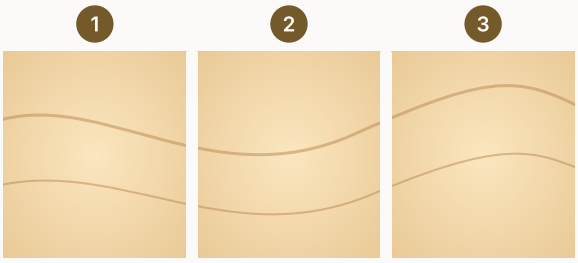

Pressure roller

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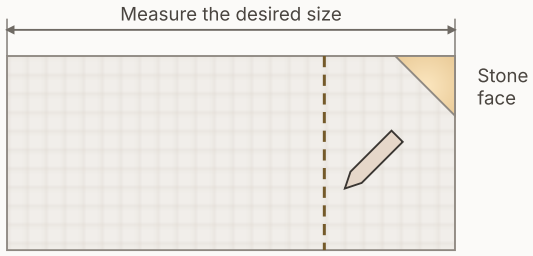
Measure & Cut

3.1 Plan the Layout

- Number the sheets in sequence so light transmission and veining flow the way you want across the finished panel.
- Plan joints, corners, and edge terminations before you cut anything.



Review the sequence lit, as well as unlit.



Back of sheet — mark cut lines here only

3.2 Measure and Mark

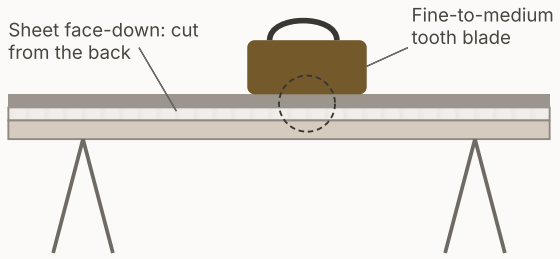
- Measure the desired size on each sheet and mark cut lines on the back only.
- Double-check measurements before cutting — walls and frames are rarely perfectly square.

3.3 Cut the Sheets Safely

- Cut with a circular or track saw, or a jigsaw, CNC router, laser, or water jet for curves and detailed cut-outs.
- Use a fine-to-medium tooth blade, cutting from the back of the sheet; wet-cut sheets should dry completely before bonding.

⚠ CUTTING SAFETY

- Wear a P2 mask, safety goggles, gloves, and hearing protection throughout.



Support the sheet fully along its length

PHASE 04 OF 06

Apply Adhesive

4.1 Select the Adhesive

- Use a light-permeable adhesive only.
- A clear construction/bonding sealant is sometimes used as an alternative.
- Check the manufacturer's current data sheet for open time, coverage, and curing requirements.

4.2 Mask the Edges

- Mask sheet edges with standard painter's tape, not high-tack, to protect the stone face.
- Remove tape promptly once each sheet is bonded.

4.3 Apply the Adhesive



✓ Smooth, back-buttered
Even glow once lit

× Trowel ridges
Shadow-banding once lit

× Trapped air bubbles
Dark patches once backlit

Front views of a lit panel, illustrative.

- Apply evenly to the back of the sheet or the base layer, using the back-buttering technique for a more uniform bond.
- Skip the trowel ridges you'd use on standard veneer — smooth coverage avoids shadow-banding once the panel is lit.
- Avoid trapped air bubbles, which appear as dark patches once backlit.
- Most light-permeable adhesives have a limited open time — position the sheet promptly once adhesive is applied.

⚠ ADHESIVE SELECTION

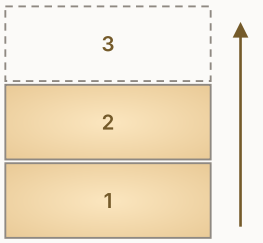
- Confirm against the manufacturer's current data sheet. A non-translucent or opaque adhesive isn't suitable for backlit work.

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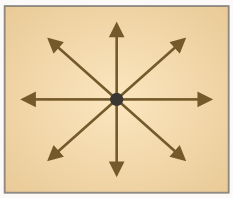
Press & Bond

5.1 Position and Roll the Sheet

- Work from the bottom up, checking each sheet with a spirit level.
- Press firmly from the centre out, then use a pressure roller to enhance adhesion and remove trapped air.
- A slight reposition is possible while the adhesive is still open.



Bottom up, levelled

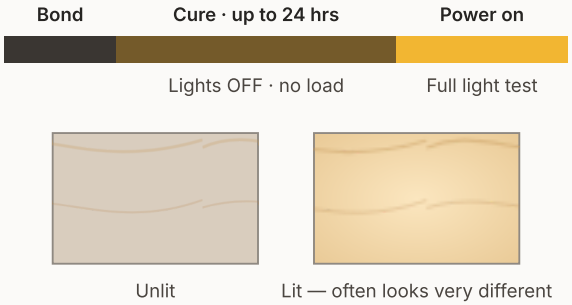

Centre out, then roll

PHASE 06 OF 06

Seal & Cure

6.1 Allow the Installation to Cure

- Let the adhesive cure before loading the panel or powering the lights — allow up to 24 hours as a starting point, though cold, high humidity, or a different adhesive may call for longer. Always defer to the adhesive manufacturer's instructions.
- Never power on the lighting system before the adhesive has fully cured.
- Test the complete lighting setup before calling the installation final — appearance under light often differs substantially from unlit.



Unlit

Lit — often looks very different

Questions on your project?

Contact our specification team
contourostone.com/installation