XSTONE® SURFACES



MINERAL FINISHES ON BOARDS · TECHNICAL GUIDE

Wood panels Installation guide

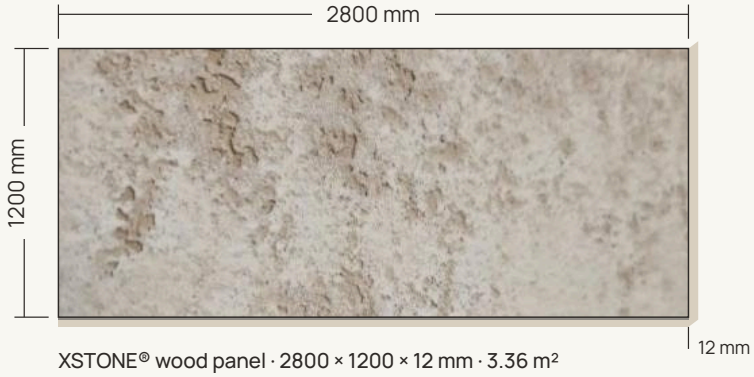
How to laminate, shape, machine and mount XSTONE® mineral veneer on wood-based boards. Written for panel manufacturers, joiners and shopfitters, with the 2800 × 1200 mm panel as the reference format.

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The panel at a glance

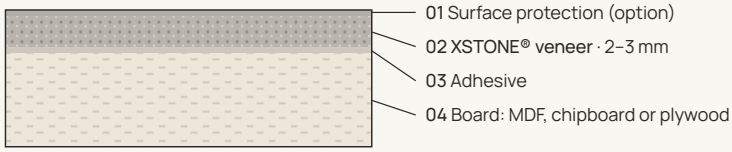
An XSTONE® wood panel is a wood-based board faced with XSTONE® mineral veneer: 2–3 mm of real mineral material, 90 % recycled marble powder. It looks and feels like stone or concrete, is worked with ordinary woodworking tools, and the veneer bends around 90° corners without a joint.



XSTONE® wood panel · 2800 × 1200 × 12 mm · 3.36 m²

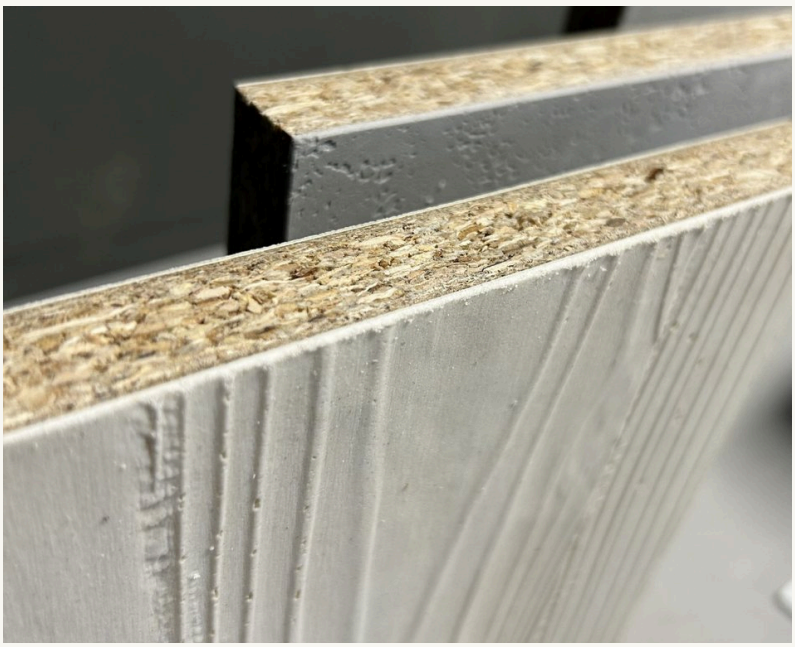
Bespoke sizes and thicknesses on request.

CROSS-SECTION OF THE PANEL



Not to scale.

MINERAL FACE, WOOD CORE



AT A GLANCE

PRODUCT	XSTONE® wood panels · mineral veneer on a wood-based board
FORMAT	2800 × 1200 mm Bespoke sizes on request
THICKNESS	12 mm Bespoke thickness on request
FACE	Mineral veneer 2–3 mm, 90 % recycled marble powder, matt
CORE	MDF, chipboard or plywood
REACTION TO FIRE	D-s2,d0 Fire-resistant B-s1,d0 on request
EMISSIONS	A+ (indoor air, VOC)
CORNERS	Veneer bends around 90° edges without a joint
OPTIONS	Water-repellent protection Hard-traffic protection
USE	Interior walls, furniture, doors, counters, shop and hotel fit-outs

Before you start

There are two ways to work. XSTONE® supplies finished panels, ready laminated: start at step 04. Or you laminate XSTONE® veneer onto your own boards: follow every step from 01.

MAKING THE PANEL (done in the factory for finished panels) | WORKING WITH THE PANEL

STEP 01	STEP 02	STEP 03	STEP 04	STEP 05	STEP 06	STEP 07
Prepare A flat, clean, dry board.	**Balance** Veneer on both sides.	**Bond** Press or contact spray.	**Corners** Bend the veneer 90°.	**Machine** Cut, drill, engrave.	**Protect** Varnish and seal.	**Mount** Walls and furniture.

Tools and materials

- ☐ Tape measure, pencil, straight edge
- ☐ Sharp utility knife with spare blades
- ☐ Panel saw or circular saw with a fine-tooth blade; router or CNC
- ☐ Adhesive for the chosen method (step 03)
- ☐ Hot or cold press, or XSTONE® Spray contact adhesive
- ☐ Pressure roller, rubber mallet or smoothing sponge
- ☐ Fine abrasive paper, vacuum cleaner, clean cloths, degreaser
- ☐ XSTONE® Hard Protect varnish and a short-pile roller, if specified
- ☐ Gloves, safety glasses, dust mask

Suitable boards

- MDF, chipboard, plywood, OSB and other common wood-based boards.
- The surface must be flat, solid and completely dry.
- It must be free of dust, sawdust and grease.
- Thin boards and large formats need veneer on both sides to stay flat (step 02).

Metal. Bonding to metal is possible, but only after careful degreasing with an industrial degreaser. Ask XSTONE® before you start.

Not suitable. Damp, warped, dusty or greasy boards. Dry, clean or replace them first.

Workshop conditions

- Keep boards and veneer in the workshop for 48 hours before bonding, so both are at the same temperature and humidity.
- Work at normal room temperature, 15–25 °C, away from dust.

Handling and storage

- Store panels flat on a level base, fully supported, with the mineral face protected.
- Carry large panels upright, with two people.
- Do not slide one mineral face over another.
- Check finish, colour batch and damage before cutting.



XSTONE® veneer before bonding: flexible, on a fibreglass backing, in sheets of 1000 × 3000 mm or 1300 × 3000 mm.

QUANTITY CHECK

One panel covers **3.36 m²**. Divide the surface by 3.36, then add about **10 %** for cuts, more when the texture has to line up from panel to panel.

Veneer only: a 1300 × 3000 mm sheet covers one 2800 × 1200 mm board with a margin to trim. Add the height of every edge the veneer wraps around. Order everything for one project from the same production batch.

Prepare, balance and bond

01 STEP — Prepare the board

- Check that the board is flat, solid and completely dry.
- Vacuum off dust and sawdust. Wipe off any grease.
- Cut the veneer a little larger than the board. It is trimmed flush after bonding.
- Where the veneer will wrap around an edge, leave it longer by the height of that edge (step 04).

02 STEP — Balance the panel

A board with veneer on one side only can bend when temperature and humidity change. To keep it flat:

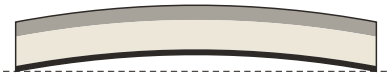
- Bond an XSTONE® sheet of the same thickness on the back, and give both sides the same finish. This matters most for thin boards and large formats.
- Do not use a conventional laminate as the backing. It expands differently from XSTONE® and the panel will bow.
- Wall cladding: one side is enough if a fixing system or a reinforcement holds the panel flat on the wall. Seal the back against moisture with paint, lacquer or varnish. XSTONE® gives no guarantee on one-sided panels.

BALANCING, IN SECTION



BALANCED

XSTONE® veneer on both sides, same thickness, same finish. The panel stays flat.



AVOID

Conventional laminate on the back. The two materials move differently and the panel bows.



WALL CLADDING

Veneer on the face only. The back is sealed and the fixings on the wall hold the panel flat.

03 STEP — Bond the veneer

Three methods. Pressing gives the most even bond and is recommended. For all three, both surfaces must be solid, completely dry and free of dust, sawdust and grease.

METHOD	HOW	KEY FIGURES
A · Hot press Recommended	Spread a standard adhesive for laminated panels on the board: vinyl (PVAc), urea-formaldehyde or PUR. Lay the veneer and press. Do not go above 60 °C: more heat creates stresses between the layers that weaken the panel.	60 °C maximum 200 kg pressure 5 minutes
B · Cold press	Spread a coat of vinyl (PVAc) adhesive on the clean board. Lay the veneer and press evenly over the whole sheet. Keep it under pressure with a board of similar density on top: MDF, OSB or plywood.	8 to 10 minutes under pressure
C · Contact adhesive spray	Use XSTONE® Spray contact adhesive. Spray the board and the back of the veneer in a spider-web pattern, with a double coat along the edges. Wait until the adhesive is tacky but no longer sticks to the finger. Lower the sheet from one edge at about 45°, then press firmly with a roller, mallet or smoothing sponge to push out the air.	Spray from 10–15 cm 80–100 % coverage 60 g dry adhesive per m² Wait about 2 minutes

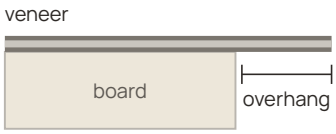
Contact adhesive grips at once. Line the sheet up before it touches the board; it cannot be moved afterwards.

Edges and 90° corners

XSTONE® veneer is flexible enough to bend around a 90° corner. The mineral surface runs from the face onto the edge in one piece, so a board reads as a solid block of stone or concrete.

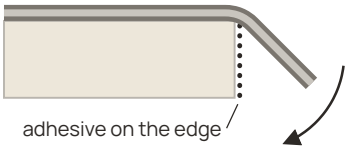
Method A · Wrap the veneer around the edge

For shelves, tops, doors and fronts



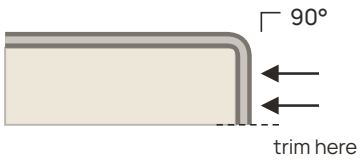
A1 · BOND THE FACE

Bond the veneer on the face. Let it overhang the edge by the height of the edge, plus a little to trim.



A2 · BEND

Smooth the sharp edge of the board lightly. Spray contact adhesive on the edge and on the back of the overhang. When it is tacky, bend the veneer down around the corner.

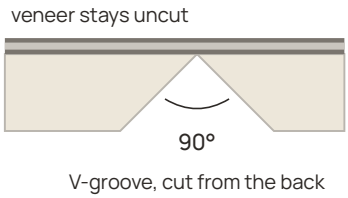


A3 · PRESS AND TRIM

Press along the corner first, then down the edge, with a roller. Trim the excess flush with a sharp knife.

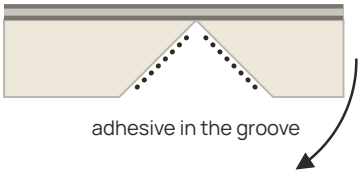
Method B · Fold the panel (mitre fold)

For boxes, plinths, counters and columns



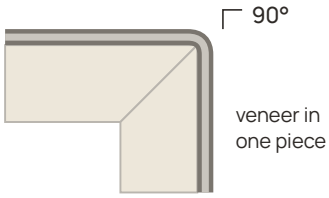
B1 · CUT A V-GROOVE

From the back of the laminated panel, cut a 90° V-groove through the board, down to the veneer but not into it.



B2 · GLUE

Clean the dust out of the groove. Apply adhesive to both faces of the groove.



B3 · FOLD

Fold the panel to 90°. The veneer works as the hinge and stays in one piece. Hold with tape or clamps until the adhesive has set.



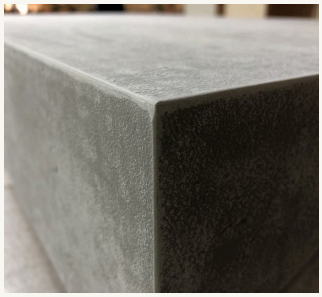
Method A: veneer bent around the corner of an MDF board.



Method A: veneer wrapped around a board edge.



Method B: mitred board, veneer in one piece.



Finished corner: the texture runs on every face.

Test first. Bend an offcut of the same finish before you bend a full panel.

Machine, protect and mount

05 STEP — Cut, drill and engrave

- Work the panel like any veneered wood board: panel saw, circular saw, router or CNC, with sharp tools.
- Let the saw teeth enter through the mineral face: face up on a panel saw, face down with a hand-held circular saw. The cut edge of the veneer stays clean.
- Drill holes and rout slots and cut-outs with the panel fully supported.
- Logos and lettering can be engraved into the mineral face. XSTONE® engraves in the factory from your drawing.
- Smooth cut edges lightly with fine abrasive paper. Use dust extraction and wear a dust mask.



Step 05: slots and holes cut by CNC in a stack of finished panels.

06 STEP — Protect the surface

- Worktops, desks, counters and shelves take knocks and spills. Protect them with XSTONE® Hard Protect varnish: it makes the surface more durable in daily use.
- Near water, such as washbasins and bars, order the water-repellent protection.
- Apply the protection on a clean, dry, dust-free surface and follow the product instructions.
- Seal every exposed board edge and any uncoated back against moisture: wrap it with veneer, or coat it with paint, lacquer or varnish.



Lettering engraved into the mineral face.

07 STEP — Mount the panels

- Wall cladding: fix the panels to a flat wall or to a level frame of battens or rails. Use a fixing system that holds the whole panel flat.
- Leave a small gap between panels and at walls, floor and ceiling, so the wood board can move.
- Furniture, doors and shop fittings: assemble with the usual fittings for wood boards. Fix from the back or the inside wherever possible, so the mineral face stays intact.

One-sided panels. A panel with veneer on the face only relies on its fixings to stay flat. Do not use it free-standing.



Step 07: counter, drawer fronts and niche built from panels in a travertine finish.

Where it goes, how it lasts

Wall design
Feature walls, full-height cladding

Fit-outs
Hotels, offices, restaurants, shops, events

Furniture
Counters, desks, shelving, plinths

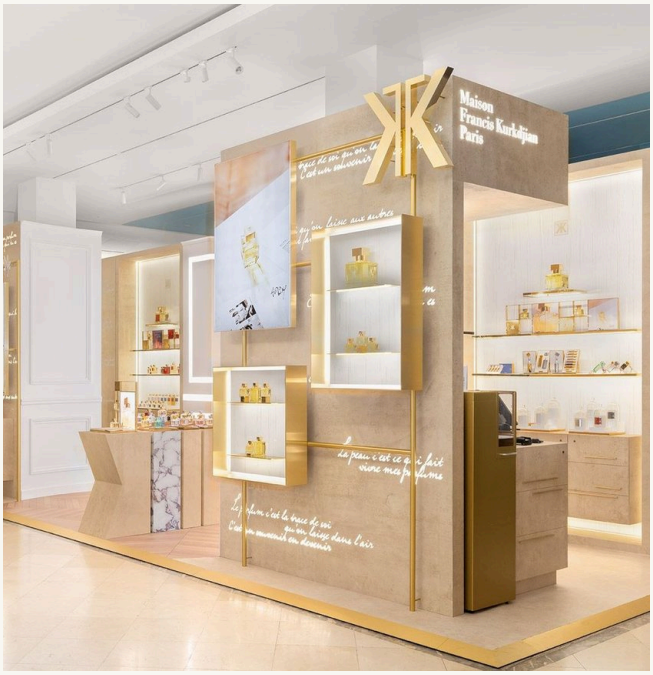
Doors and cupboards
Door leaves, cupboard fronts

Cladding
Columns, reception desks, displays

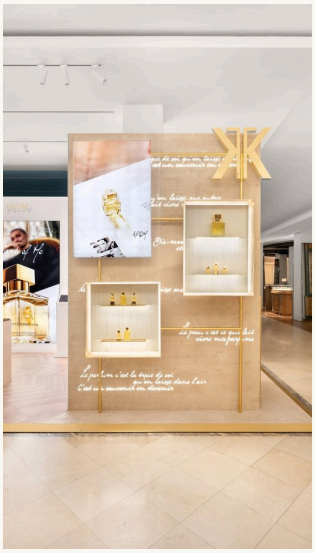
Care and maintenance

The mineral face is matt and slightly porous, like stone. It needs little care.

Routine	Dust with a soft cloth, a soft brush or a vacuum cleaner with a brush head.
Cleaning	Wipe with a cloth lightly dampened with water and a pH-neutral cleaner, then dry.
Avoid	Abrasive pads, solvents, bleach, acidic or alkaline cleaners, steam, and water left standing on joints and edges.
Worktops	Wipe up spills soon. Renew XSTONE® Hard Protect varnish when the surface shows wear.
Damage	Small chips can be repaired locally. Ask XSTONE® for the matching material and keep an offcut from the batch.



Boutique in a department store: walls, counters and display frames in a travertine finish, with the veneer folded around every corner.



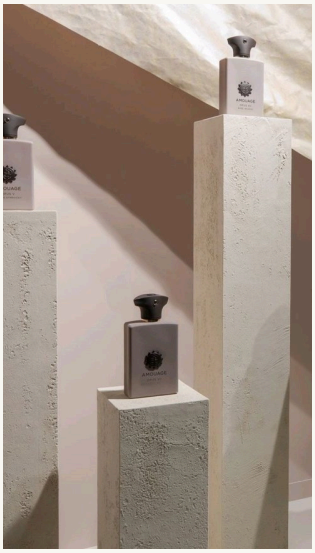
Display wall with lit niches, travertine finish.



Free-standing wall and shelf unit, boxed on all sides.



Column cladding and curved counter.



Plinths with sharp folded corners, rough finish.

Certifications and responsibility

XSTONE® manufactures its mineral coatings from 90 % recycled marble powder, reusing quarry waste in a low-energy, low-water process. The veneer is light and travels rolled, which lowers CO_2 emissions by up to 95 % compared with natural stone, and it can be recycled at the end of its life.

Reaction to fire	D-s2,d0 for the standard panel (EN 13501-1). Fire-resistant version B-s1,d0 on request. The mineral veneer alone is classified A2-s1,d0.
Indoor air	A+ VOC emission class; emissions below 1 g/l.
Marking	Products certified to European standards (CE).

CE. Certified to European standards.

A+. Indoor air emissions, the best class.

BREEAM. Contributes to Materials and Resources, Indoor Environmental Quality and Innovation in Design.

LEED. Contributes to MRc1 Construction Waste, MRc2 Building Life-Cycle Impact, MRc4 Material Ingredients and MRc5 Responsible Sourcing.

Credit contributions depend on the project and the assessment version. Ask XSTONE® for the supporting documents.

TECHNICAL ASSISTANCE

Talk to our team

Questions on boards, adhesives, press settings, folded corners or bespoke sizes are answered before you order and while you work. Send drawings and photos; we reply with a recommendation.

Request samples →

Discuss your project →

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Low table on castors, built as a box from XSTONE® panels in a concrete finish.

This guide gives general instructions for XSTONE® mineral veneer on wood-based boards. Boards, adhesives and workshop conditions vary; where they differ from the cases described, ask XSTONE® before you start. Follow the instructions of every adhesive and varnish. Edition 11 / 2026; it replaces all previous editions.

STONE CHARACTER. FREEDOM OF FORM.