

TECHNICAL REFERENCE • 15 SECTIONS

The STONIM® Fabrication Manual

A field guide for fabricators and installers working with STONIM® premium solid surface — from pallet to polish. Storage, cutting, seaming, sinks, thermoforming, and the tolerances that keep a warranty valid.

[Start reading →](#)[Jump to tech specs](#)

Sheet, pallet & load geometry

2440 / 3660mm length • 6/12/18mm thickness



1.70–1.75 g/cm³ density**10,000** psi flexural strength (min)

01 Storage & Transport**02** Quality Review**03** Glue**04** Tools**05** Wo:

01 Storage & Transport

PALLET LOAD

FORKLIFT ≥15cm FORK

STONIM® sheets travel on wooden pallets and must be unloaded with a forklift or equivalent lifting device. Manual unloading is possible, but only one sheet at a time, held at its edge, carried vertically, by two people.

STORAGE CONDITIONS

- 15°C–23°C, dry, well-ventilated indoor area — never exposed to moisture.
- Horizontal storage: stacked evenly on a flat base.
- Vertical storage: on vertical supports, lower edge resting on the floor.
- Batch number and colour kept visible for easy identification.

ADVICE Extreme cold affects the sheet — handle with care below 10°C, and use vacuum lifting accessories for heavy loads.

NOTE Sinks and washbasins should never be stacked more than 6 boxes high.

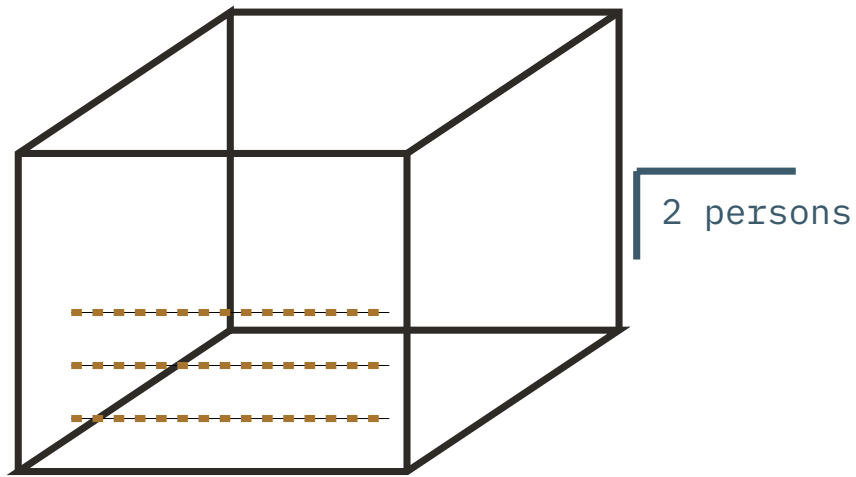


FIG. 01 – Vertical carry, two-person methodSec. 01.1

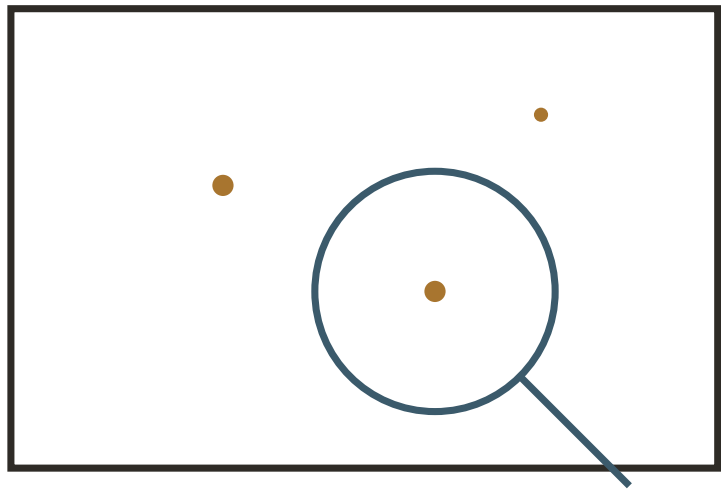
02 Quality Review

Every sheet is checked before dispatch, but final inspection is the fabricator's responsibility. Check colour and surface before the first cut — faults found after cutting are not covered.

CONTROL	REQUIREMENT
Bending	< 2.0 mm / metre

Dimension	Thickness $\pm 0.5\text{mm}$ · Length $-8/+10\text{mm}$ · Width $-4/+10\text{mm}$
Hardness	Barcol 60–65 (ASTM D2583)
Curvature	2 mm / metre max
Foreign bodies	$\leq 1\text{ mm}^2/\text{m}^2$ contrast dots · ≤ 3 per dm^2

NOTE Warranty does not cover damage from inappropriate assembly, installation, or use of already-damaged material.



Contrast dots $\leq 1\text{mm}^2/\text{m}^2$

FIG. 02 – Surface inspection zoneSec. 02.1

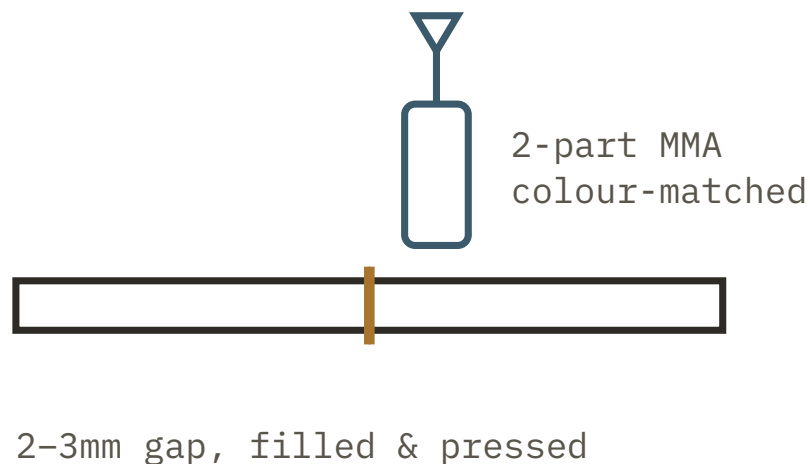
03 Glue

Joints are made with a two-component acrylic (MMA-based) seaming adhesive, colour-matched to the sheet — resin base (A) plus peroxide hardener (B). Correctly used, it produces a chemical bond that reads as a single continuous surface.

WORKING WINDOW

- Open time: ~10–15 minutes at $20^{\circ}\text{C} \pm 2^{\circ}\text{C}$
- Initial set: ~35 minutes
- Full cure: ~24 hours
- Mix ratio: ~10:1 (A:B) for cartridge systems

ADVICE Never overdose hardener — it accelerates the reaction, discolours the joint, and weakens the bond.



04 Tools & Accessories

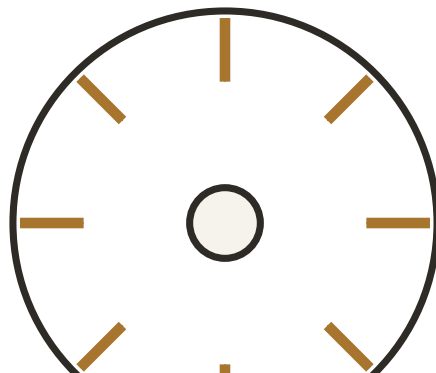
Tooling is largely brand-agnostic. The requirements are in the blade and the machine, not the badge on it.

BLADE REQUIREMENTS

- Tungsten carbide K10 / K5, or diamond quality
- Negative 6° tooth angle
- 4,000–6,000 rpm
- Re-sharpen on a 400–600 grit wheel

CORE KIT

- Squaring saw (3kW) · Router (800–1,600W) · Vacuum (350–1,200W)
- Heat-treatment furnace, up to 180°C, with regulation
- Joiner's / fixing clamps · Glue gun & MMA kit





K10 carbide · -6° tooth angle

FIG. 04 – Blade geometrySec. 04

05 Preparation of Working Area

Before processing begins — in the workshop or on-site — the room and the sheet both need to be ready.

WORKSHOP

- $\geq 18^\circ\text{C}$ ambient, sheets acclimatised 12 hours before cutting
- Well-lit, low-dust, surfaces flat for gluing

CUSTOMER PREMISES

- Access route, doorway size, ceiling height
- Electrical & water points confirmed in advance
- Agreement reached on scope before work starts

entrance clearance

$\geq 18^\circ\text{C}$ · dust-free · flat bench



FIG. 05 – Access & room checklistSec. 05.2

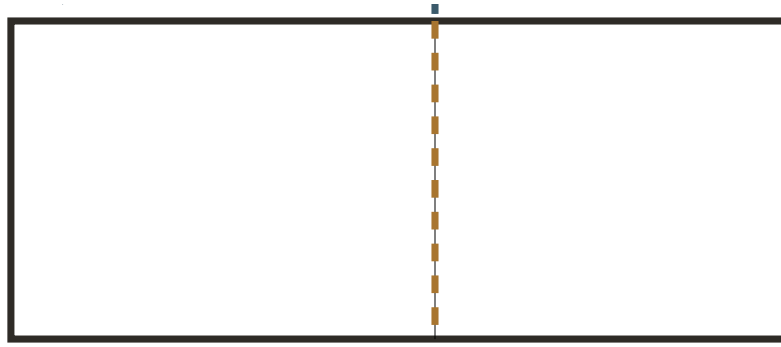
06 Cutting STONIM® Sheets

Squaring saws handle standard sheet cuts, the same way they'd handle panel board or MDF. Band saws or jigsaws work for rough cuts, but leave a 5mm over-measurement to allow for micro-cracking at the edge.

- All cut edges $\geq 50\text{mm}$ from any joint
- Cut edges never run over a cooking plate
- Overhangs extend $\geq 70\text{mm}$ into the supporting cabinet
- Minimum internal corner radius: 6mm

ADVICE A flawless cardboard template, made to the exact finished size, is still the fastest route to a clean assembly.





6mm min. internal radius at corners

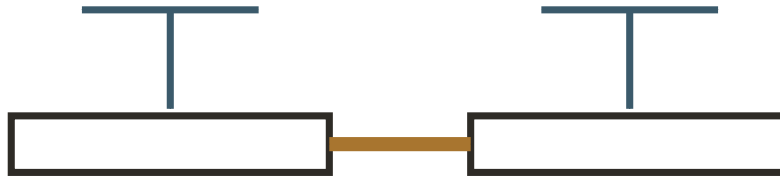
FIG. 06 – Blade path & corner radiusSec. 06.2

07 Gluing

Dry-fit before wet gluing — a visible line in a dry joint stays visible after the glue goes in. Pieces are laid face-up on a flat surface with a 2–3mm gap, filled with adhesive, then pressed to final position.

- Allow 45–60 minutes before further processing the joint
- Don't remove excess glue while soft — it shrinks ~10% while setting
- Metallic/mineral-particle colours: use a groove or 45° mitre, not a plain butt joint

NOTE Bonding STONIM® to other materials always uses an elastic silicone or polyurethane adhesive, never the rigid MMA seam glue.



clamp · clamp — 2–3mm gap, filled

FIG. 07 — Face-up gap gluingSec. 07.1

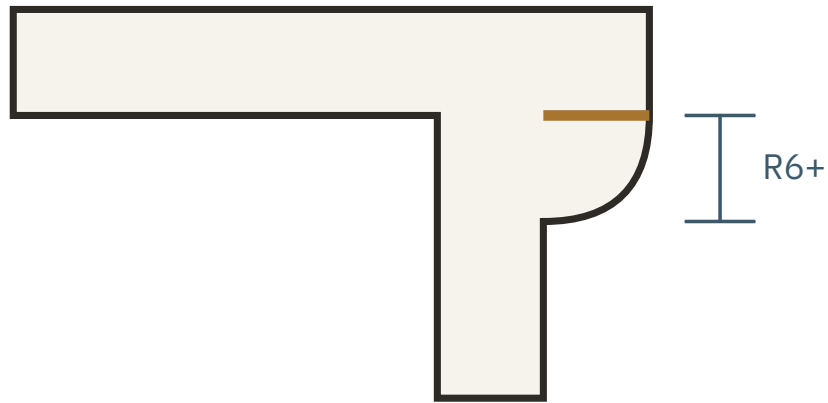
08 Edge Details & Their Making

Front and back edges are where a fabricator's craft is most visible. Classic square, bullnose, waterfall, or a stepped drop-front — all built by laminating and profiling strips of STONIM®.

TWO WAYS TO A ROUNDED BACK EDGE

- Pre-prepared edge element (glued strips, milled to radius, fitted into a groove)
- Edge milling machine (built up in place, then profiled)

NOTE Metallic-particle colours should avoid a plain classic edge — particles won't align in side view. Use a groove or 45° mitre instead.



Bullnose profile, cross-section

FIG. 08 – Edge profile, section viewSec. 08.1

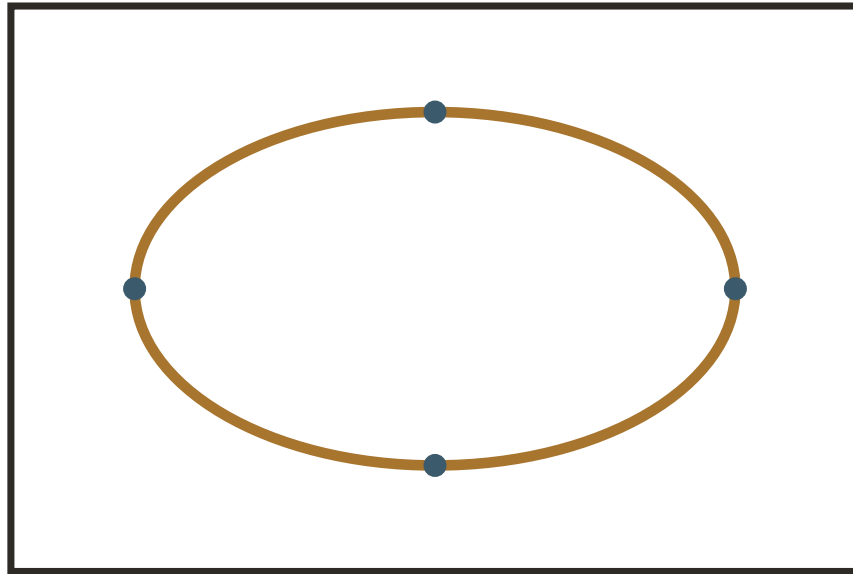
09 Installation of Sinks & Washbasins

Mark the cut, deduct sink thickness plus 5mm, rough-cut with a jigsaw (or CNC for speed and finish), then bond. The same seaming glue used for sheet joints holds an in-build STONIM® bowl in place.

INOX (STAINLESS) SINKS

Small STONIM® blocks (20×40mm) drilled and threaded for M6 screws are glued to the sink rim every 10–15cm — these fix the sink's exact position for final installation.

ADVICE Boreholes for screws should be ~10% larger than the screw diameter, with a brass or PVC sleeve inserted — never cut threads directly into STONIM®.



glued fixing points, every 10–15cm

FIG. 09 – Sink cut-out, plan viewSec. 09.1

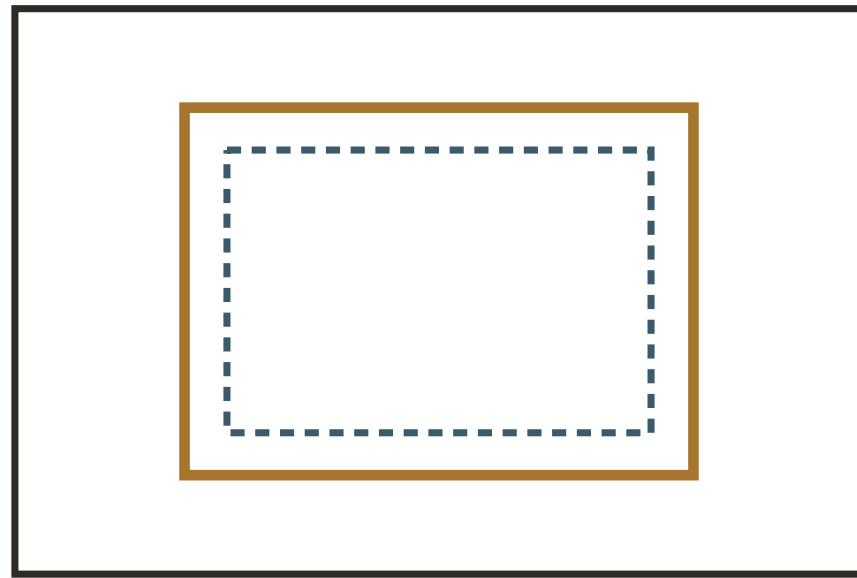
10 Installation of Cooking Plate

Hob cut-outs cause the most fabrication faults — heat expansion, weak points from cutting, or a missing aluminium heat barrier. Reinforce the opening before the hob ever goes in.

- Rough-cut 3mm smaller than final opening
- Keep joints $\geq 70\text{mm}$ from the heat source
- Glue 12mm $\times$ 50mm STONIM® strips around the opening, 12mm into the interior

- 3M 425 aluminium tape around the rim before the hob is inserted

NOTE Drop-forged glass-ceramic hobs are not suitable for STONIM® — this installation type is outside the warranty.



inner: hob opening · outer: reinforced rim

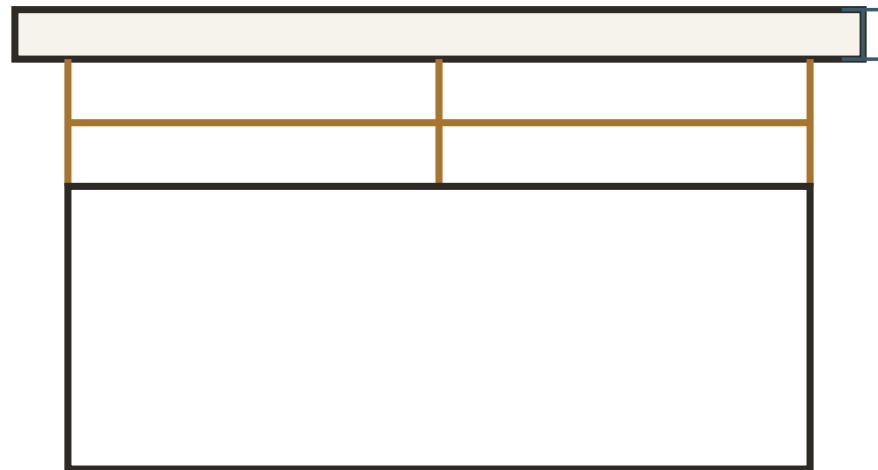
FIG. 10 – Reinforced hob cut-outSec. 10.2

11 Sub-Construction

Countertops sit on a bearing frame, not the cabinet alone. Wherever supports are 500mm or more apart, sub-construction is mandatory — best built from STONIM® offcuts, which share the same expansion coefficient as the top.

THICKNESS	USE
6mm	Vertical wall cladding only
12mm	Kitchen counters, horizontal surfaces
18mm	Self-standing, self-bearing plates

Overhangs $\leq 150\text{mm}$ need no extra support. Beyond that, two-thirds of the sub-frame sits inside the cabinet, one-third bears the overhang. Past 500mm, the overhang needs ground support every 800mm.



ladder frame • transversals every 600mm

FIG. 11 – Ladder-frame supportSec. 11.1

Finish is built in steps, not jumped to. Move the grinder clockwise, front-to-back and side-to-side — pressing too hard overheats the surface and works against you.

FINISH	GRIT PROGRESSION
Matt	P150 → P180 → P240 → P320
Semi-gloss	... → P320 → P600
High gloss	... → P800 → P1200 → paste

NOTE Dark colours demand far more upkeep at high gloss — not recommended for heavy-traffic surfaces.

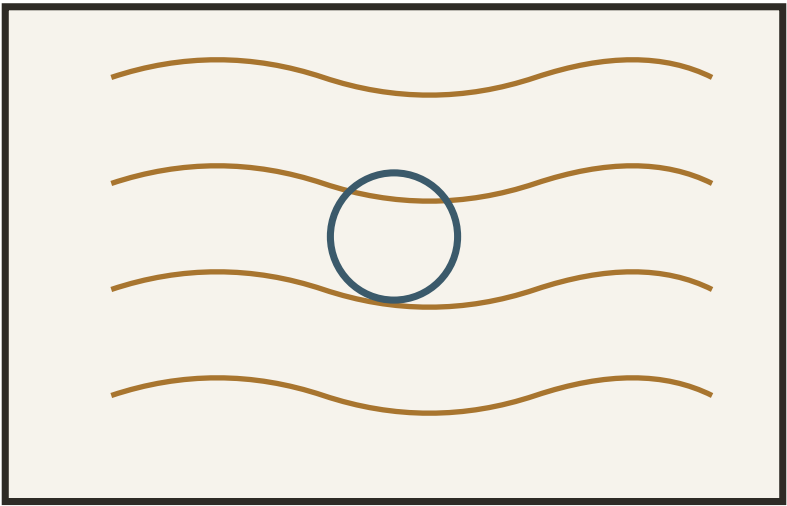
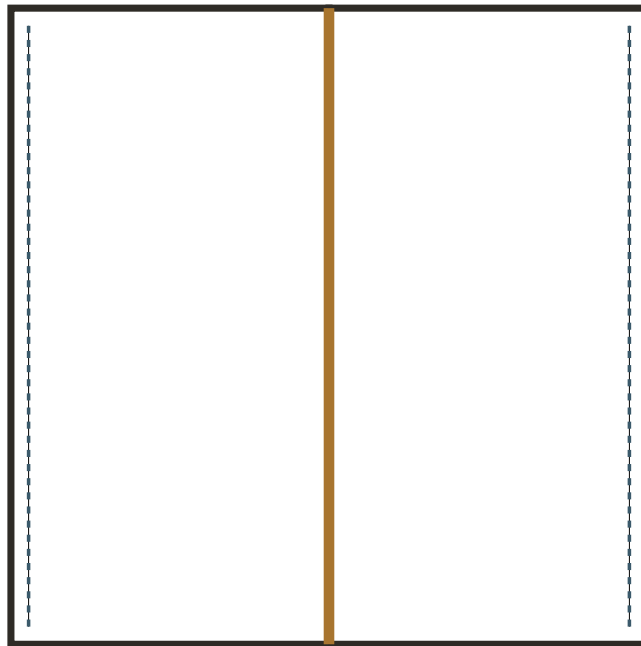


FIG. 12 – Clockwise pass patternSec. 12.1

Vertical Applications

Wall cladding, furniture faces, and decorative panels follow the same fabrication logic as a countertop, just standing up. Use 6mm minimum thickness, and confirm the wall is flat before mounting — flatten it first if not.

- Sub-construction: wood, water-resistant chipboard, or aluminium bearing profiles
- Leave clearance at panel edges for thermal dilatation
- Fix with elastic silicone glue, not rigid seam adhesive



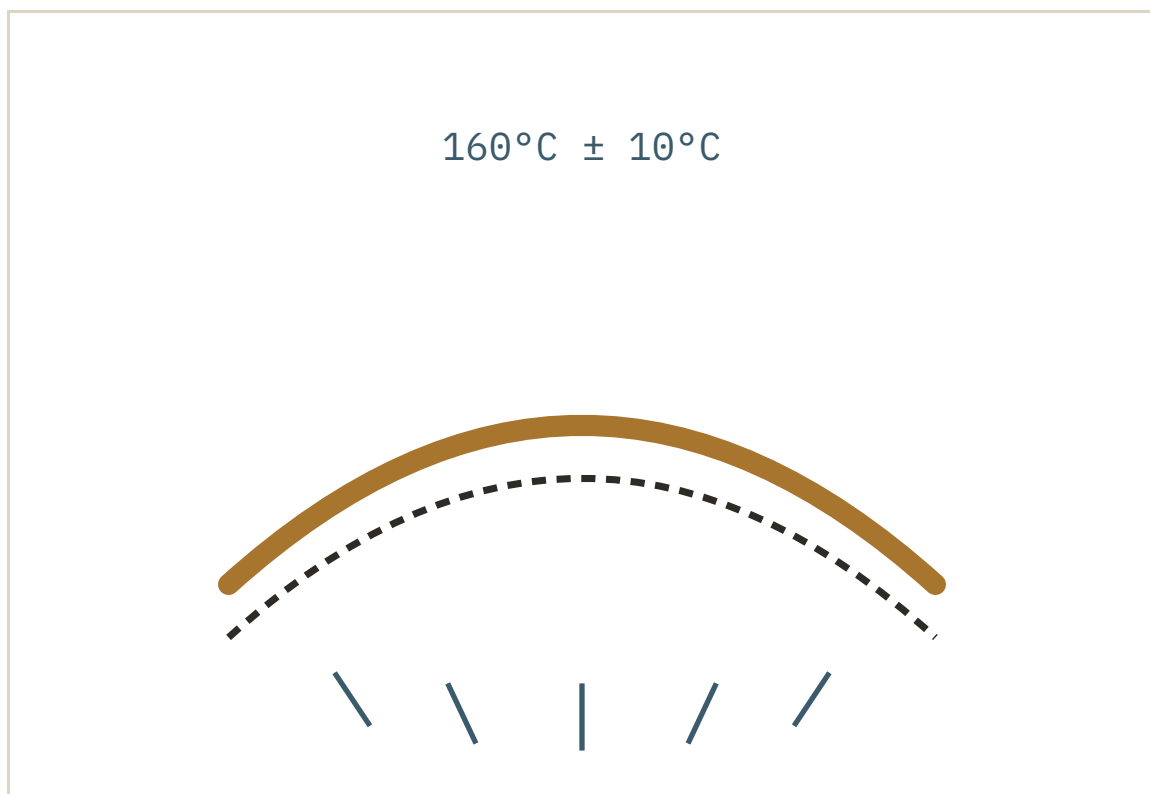
panel-to-panel elevation, expansion gap noted

14 Heat Treatment

STONIM® can be moulded, bent, and formed three-dimensionally with heat. Sheets are heated to $160^{\circ}\text{C} \pm 10^{\circ}\text{C}$, formed in a two-sided mould, then cooled evenly to lock in the new shape without losing material properties.

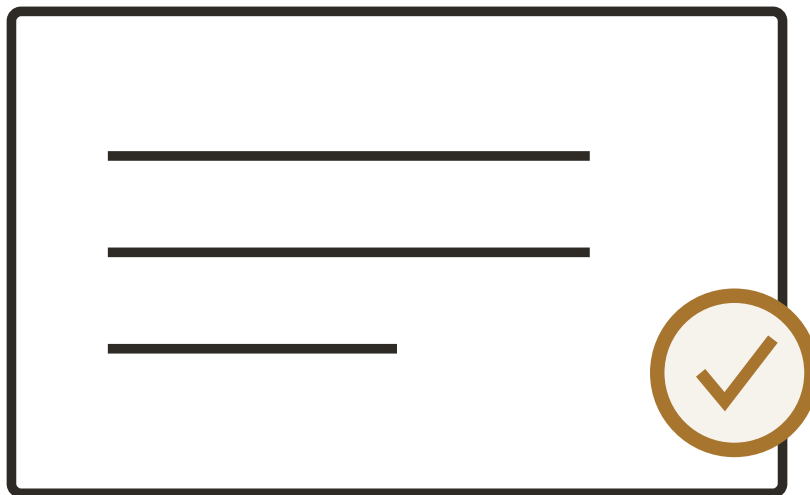
THICKNESS	HEATING TIME	MIN. RADIUS
6mm	~16 min	25mm
12mm	~22 min	90mm
18mm	~30 min	120mm

ADVICE Never exceed 170°C — the surface can be damaged. Too cool, and the material breaks or pales at the bend.



15 Training

STONIM® runs a standard fabricator training programme — technical properties, treatment theory, and hands-on practice — at designated facilities, with dates published at stonim.com. For anything not covered in this manual, technical support is a message away.





Fabricator Checklist

Twelve rules that decide whether a warranty claim gets approved.

✓ Check quality on delivery and store sheets properly.

✓ Warm sheets to $18^{\circ}\text{C} \pm 2^{\circ}\text{C}$ before working.

✓ Test-glue and confirm colour before cutting; keep one job to one batch.

✓ Match sheet thickness to application — 6 / 12 / 18mm.

✓ Keep every cut edge smooth and rounded.

✓ Ensure even temperature through full thickness while cooling.

✓ Allow $\sim 0.1\text{mm/m}$ expansion per 1°C change.

✓ Bond to other materials with elastic adhesive only.

✓ Isolate all heat-emitting fittings (hobs, dishwashers).

✓ Reinforce every sink and hob cut-out.

✓ Match support heights exactly — STONIM® must lie flat.

✓ Use the correct machines, tooling, and blades, every time.

A STONIM® Technical Specifications

Cite these figures directly in tenders and technical submittals.

1.70–1.75 g/cm³

DENSITY

10,000 psi min

FLEXURAL STRENGTH

6,000–6,500 psi

TENSILE STRENGTH

60–65 Barcol

HARDNESS (ASTM D2583)

2.1×10^{-5} in/in/°F

THERMAL EXPANSION

760 mm

STANDARD SHEET WIDTH

2440 / 3660 mm

STANDARD SHEET LENGTHS

6 / 12 / 18 mm

THICKNESS RANGE

ADVICE These are STONIM's declared product specifications. Fabrication tolerances in Sections 02.1–02.2 follow standard solid-surface industry

practice — confirm against the current STONIM® QC data sheet where a formal certificate is required.

WARRANTY FOR MATERIAL IS VALID ONLY IF FABRICATION INSTRUCTIONS ARE
DULY OBSERVED.

STONIM®

A brand of Jugal Trading Co. LLC — Dubai,
United Arab Emirates.
Premium solid surface, fabricated to spec.

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