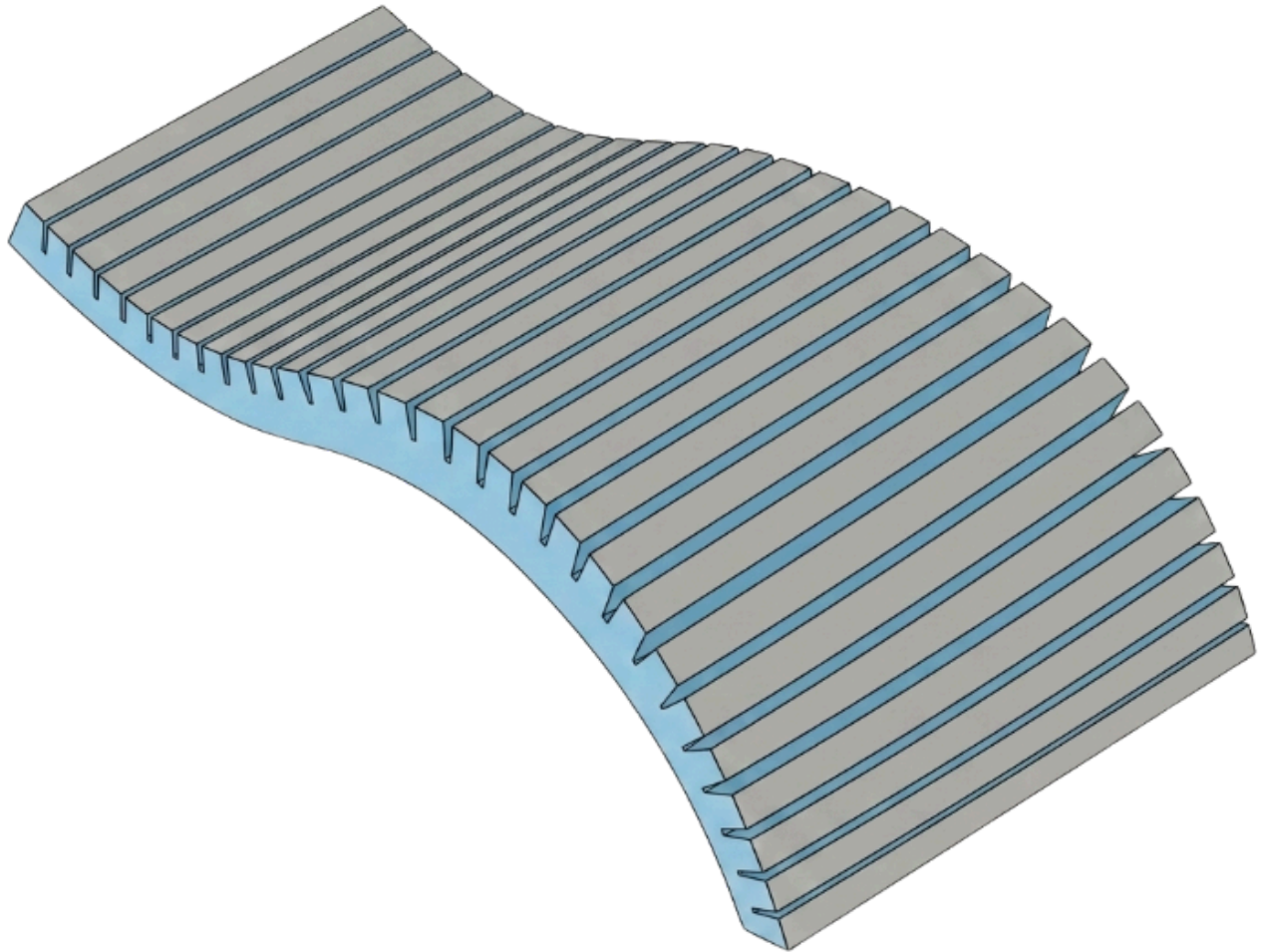


A01 · 0,0

A01 · X+



● LIGHTWEIGHT CONSTRUCTION BOARDS · INSTALLATION MANUAL · VOL. 01

FLEX BOARD.

● FIG. 01

DOCUMENT
FB-IG-001

REVISION
04 · 2026

FORMAT
A4 · 210×297

ISSUED BY
INSUTILE®

§ 00

Contents

Eight sections — everything you need to specify, source, cut, fix, waterproof and finish an INSUTILE® Flex Board installation.

03	Product Overview	BOARD CONSTRUCTION	p.03
04	Accessories & Supply Policy	WHAT WE MANUFACTURE	p.04
05	Tools & Materials	SITE CHECKLIST	p.05
06	Available Sizes	DIMENSIONS MATRIX	p.06
07	Step-by-Step Installation	7 STEPS · DIAGRAMS	p.07– 08
09	Key Features & Benefits	9 CHARACTERISTICS	p.09
10	Applications	WHERE TO USE	p.10
11	Contact & Support	REACH THE TEAM	p.11

SYMBOL LEGEND

Pro tip · required

 Checklist item Dry-fit / layout↳ FIG.
N Technical
figure

§ 01 · OVERVIEW

Engineered to bend.

INSUTILE® Flex Board is a specially engineered extruded polystyrene (XPS) tile backer designed to bend. Precision-cut grooves on one face let the board wrap smoothly around curves and shapes — making curved tiled surfaces achievable, affordable, and far less time-consuming than traditional methods.

The reinforced cementitious surface bonds reliably with all standard tile adhesives — making Flex Board the ideal substrate for tiling curved walls, archways, columns, and any radius design in residential, commercial, and hospitality settings.

CORE DENSITY

33 kg/m³

MIN BEND RADIUS

≈ **150** mm *

λ · THERMAL

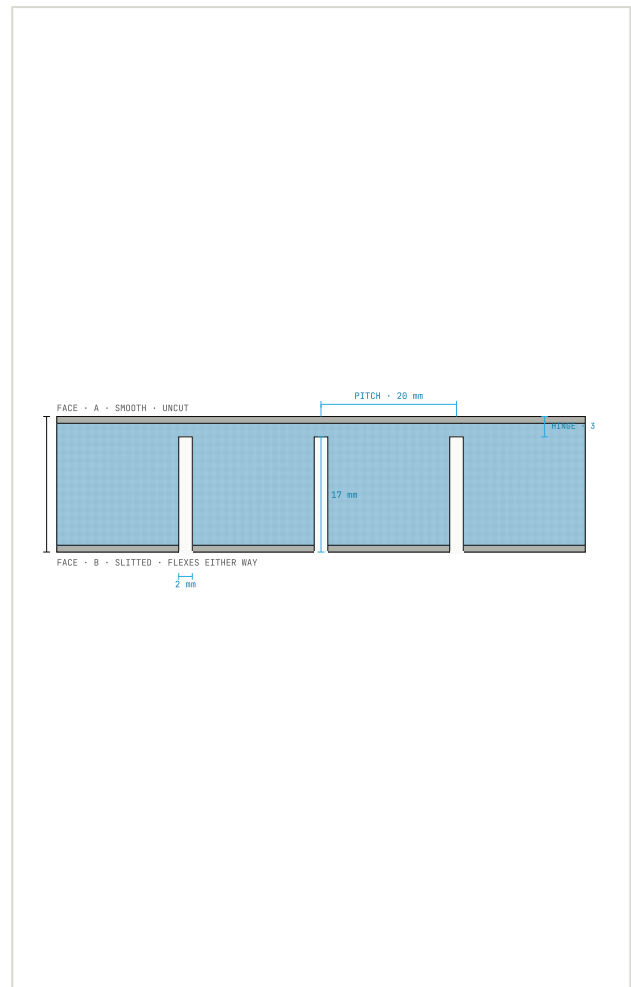
≤ **0.036** W/mK

WATER ABSORPTION

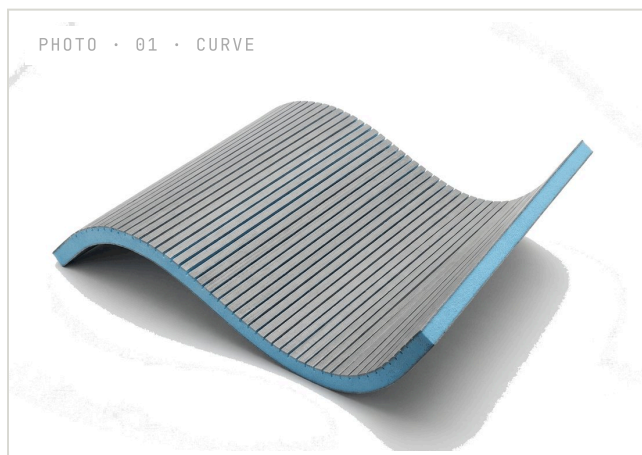
≈ **0** % vol

* NOTE · Minimum bend radius is indicative — achievable radius varies with adhesive, substrate and installation technique.

FIG. 02 · SIDE VIEW · SECTION B-B · SCALE 25:1



SIDE SECTION AT 25:1 · INDICATIVE CONSTRUCTION



● IMG



● IMG

§ 02 · SCOPE OF SUPPLY

Our Range of Products.

INSUTILE® manufactures the tile backer boards. Every accessory used in a typical installation is contractor-sourced and are standard tile installation products. On request we can custom-manufacture accessories to a clients specification, subject to an MOQ that varies by product.

- INSUTILE-MANUFACTURED

SKU · BOARDS

Boards supplied from our factory.

B01 Build Board
XPS tile backer · 4–60 mm

B02 Angle Board
Pre-formed angle · wet-area corners

B03 Flex Board
Curved & shaped applications

B04 Shower Underlay Board
Sloped tray substrates

Direct from INSUTILE® – no MOQ on standard sizes.

- CONTRACTOR-SOURCED

NOT INSUTILE-BRANDED

Accessories — your preferred brand.

A01 Adhesive
Optional — extra hold

A02 Fixing screws
Primary fix

A03 Pressure washers
Primary fix

A04 Corner seals
Wet-area corners

A05 Joint tape
Alkali-resistant mesh

A06 Waterproofing membrane
Two-coat, wet areas

A07 Tile adhesive
Flexible thin-set

A08 Grout & silicone
Finishing

Source from your preferred brand.

- CUSTOM

MOQ

VARIES BY
PRODUCT

CUSTOM ACCESSORIES ON REQUEST

INSUTILE® can manufacture accessories — adhesives, screws, washers, corner seals and similar — to your specification, subject to a minimum order quantity that varies by product. Confirm MOQ and lead times before specifying INSUTILE-branded accessories.

FIXATION METHOD

Mechanical fix is the standard.

Screws + pressure washers — the only required method. Adhesive is optional reinforcement.

§ 03 · CHECKLIST

Tools & Materials.

Check the site has everything below before you start.

Essential tools

09 ITEMS

- | | | |
|--------------------------|---|-----|
| <input type="checkbox"/> | Tape measure
5 m minimum · metric scale | T01 |
| <input type="checkbox"/> | Spirit level
1200 mm recommended | T02 |
| <input type="checkbox"/> | Utility knife / scoring tool
For score-and-snap cutting | T03 |
| <input type="checkbox"/> | Straight edge / T-square
≥ 1000 mm rule | T04 |
| <input type="checkbox"/> | Drill / driver
Primary fix · screws & washers | T05 |
| <input type="checkbox"/> | 10 mm notched trowel
Only if adhesive is used | T06 |
| <input type="checkbox"/> | Pencil / marker
Soft pencil preferred | T07 |
| <input type="checkbox"/> | PPE
Gloves · goggles · dust mask | T08 |
| <input type="checkbox"/> | Spring clamps / bracing
Hold boards flat while mechanically fixing · when necessary | T09 |

Materials

09 ITEMS

- | | | |
|--------------------------|---|-----|
| <input type="checkbox"/> | INSUTILE® Flex Board
Panels in required thickness · see §04 | M01 |
| <input type="checkbox"/> | Fixing screws
Primary fix · contractor brand | M02 |
| <input type="checkbox"/> | Pressure washers
Primary fix · 300 mm centres | M03 |
| <input type="checkbox"/> | Construction / sealant adhesive
Optional · extra reinforcement only | M04 |
| <input type="checkbox"/> | Joint reinforcing tape
Alkali-resistant mesh | M05 |
| <input type="checkbox"/> | Waterproofing membrane
Wet areas · 2 coats | M06 |
| <input type="checkbox"/> | Waterproof corner seals
Internal corners · wet areas | M07 |
| <input type="checkbox"/> | Flexible tile adhesive
Thin-set mortar | M08 |
| <input type="checkbox"/> | Grout & silicone sealant
For finishing · colour-matched | M09 |

SUPPLY NOTE · SEE §02

! Items marked ● are INSUTILE-manufactured.

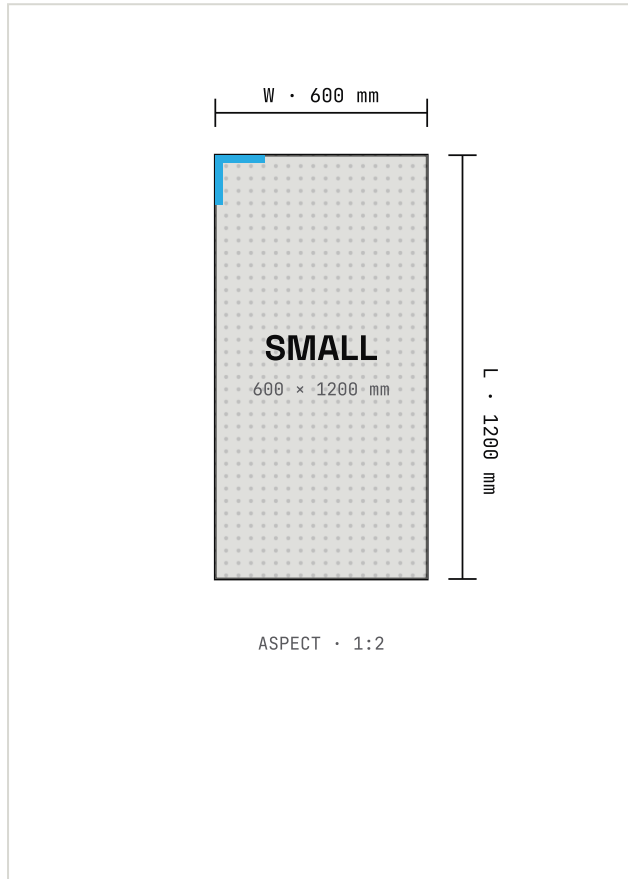
§ 04 · DIMENSIONS MATRIX

Available sizes.

Flex Board is supplied in a single 20 mm thickness — 600 mm wide, in two lengths (1200 / 2400 mm) — with precision-cut grooves on one face for smooth bending.

FIG. 03 · INSUTILE SMALL

● 600 × 1200



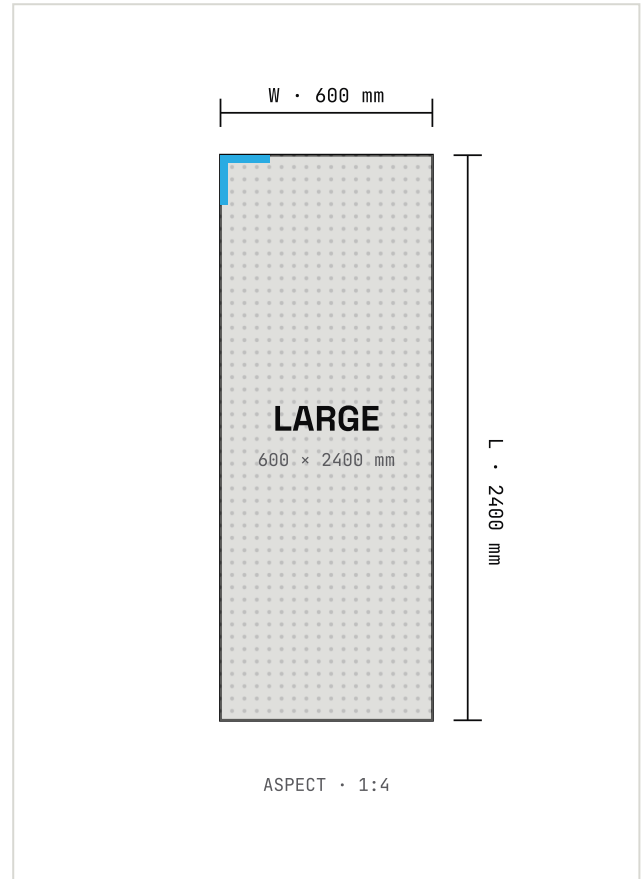
AVAILABLE THICKNESS · MM

20

01 option

FIG. 04 · INSUTILE LARGE

● 600 × 2400



AVAILABLE THICKNESS · MM

20

01 option

● CUSTOM

Special orders.

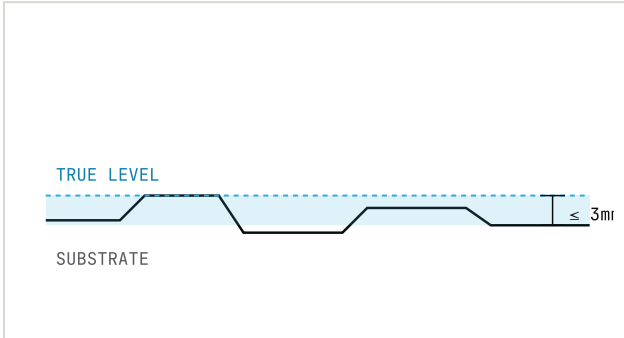
CUSTOM DIMENSIONS & THICKNESSES

Non-standard widths, lengths and thicknesses can be manufactured to specification for special orders. Confirm feasibility, MOQ and lead time with the INSUTILE® team before specifying.

§ 05 · INSTALLATION

Seven steps.

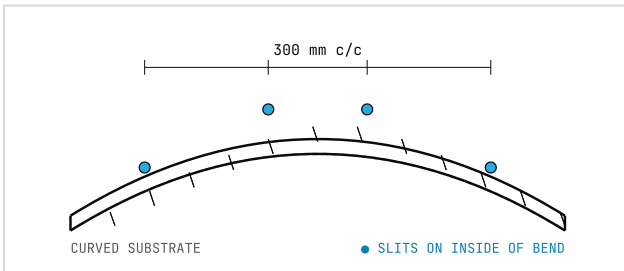
01 STEP 01 · CURVED SUBSTRATE Substrate preparation



Clean, dry, stable — and follows the intended curve. Curved stud walls: top/bottom tracks bent to radius, studs at ≤ 300 mm c/c. Masonry: smooth profile, no high spots.

Use a flexible straight edge along the full curve. Any flat spots or kinks will telegraph through the tiled finish.

03 STEP 03 · PRIMARY FIX Bending & fixing



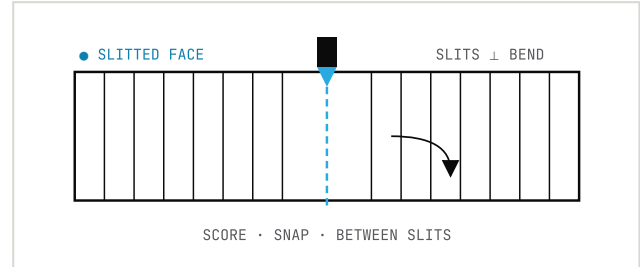
Gently bend to the radius — slits on the inside of the curve is preferred. Fix with screws and pressure washers at 300 mm c/c, working progressively from one end to the other. Use clamps or props to hold the curve while fixing.

Optional — on irregular masonry or high-impact areas, apply a 10 mm notched bed of construction adhesive before fixing to supplement the screws.

PROGRESS · STEPS 1-4 OF 7



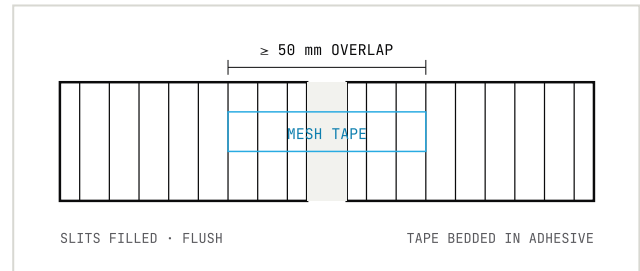
02 STEP 02 Cutting & fitting



Measure, mark, dry-fit. Score and snap as standard. Orient flex grooves **perpendicular** to the bend direction — Flex Board can bend either way, but **grooves on the inside (concave) of the curve** is the preferred orientation.

Slits on the *outside* (convex) of the bend is possible, but requires filling the open slits with cement-based tile adhesive and an extra fiberglass mesh layer for support — see Step 05.

04 STEP 04 Joint treatment



Bed alkali-resistant tape into flexible adhesive over every joint. **Fill any exposed flex grooves** with cement-based flexible tile adhesive — smooth and flush before tiling. Where the slitted face is on the **outside (convex)** of the curve, add an extra layer of fiberglass mesh over the grooved area for additional support.

Overlap mesh tape by ≥ 50 mm. Let the joint compound dry fully before waterproofing.

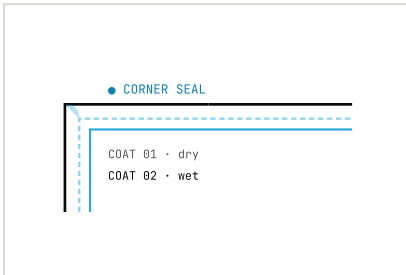
§ 05 · INSTALLATION · CTD.

Seal. Tile. Finish.

PROGRESS · STEPS 5-7 OF 7

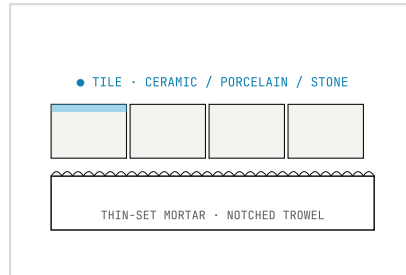


05 STEP 05 Waterproofing



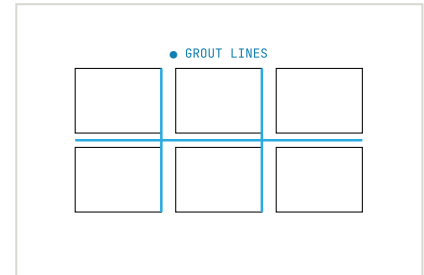
Wet areas only. Apply membrane in two coats over joints, corners, penetrations. Use corner seals in every internal corner. Fully tanked behind tile.

06 STEP 06 Tiling



Apply flexible thin-set directly to the board face — no priming needed. Standard techniques. Back-butter large-format tiles and stone.

07 STEP 07 Finishing



Grout all joints with a tile-appropriate grout. Wet areas: waterproof grout + silicone in corners, junctions, penetrations. Cure fully before water contact.

• NOTE

Recommended guide.

CONTRACTOR DISCRETION

The steps above are an **indicative installation guide**. INSUTILE® Build Board can be installed using any standard method the contractor prefers for tile backer boards — screw-and-washer mechanical fix is our recommendation, but alternative practices that meet the substrate, waterproofing and load requirements are acceptable. Always follow local building codes and the adhesive / membrane manufacturer's instructions.

INDICATIVE CURE TIMELINE

Δt · HOURS

0h	24h · adhesive cure (if used)	48h · membrane cure	72h · grout & silicone cure	• READY FOR WATER
----	-------------------------------	---------------------	-----------------------------	-------------------

§ 06 · PERFORMANCE CHARACTERISTICS

Nine reasons it bends easily.

Flex Board delivers every Build Board benefit, plus the ability to bend either way to concave and convex curves — without cracking, without priming, without fuss.

F01



Waterproofing

Closed-cell XPS core absorbs virtually zero moisture — even fully submerged. No swelling, delamination, or mould growth behind tiles.

≈ 0 % WATER ABSORPTION

F02



Versatile radius

Precision-cut grooves let a single 20 mm board wrap tight curves, archways and columns — no custom tooling required.

MIN RADIUS ≈ 150 MM

F03



Excellent tile adhesion

Factory-applied cementitious coat grips adhesive firmly. Compatible with all standard cement, dispersion and reactive adhesives — no priming.

NO PRIMER REQUIRED

F04



Thermal insulation

Thermal conductivity ≤ 0.036 W/mK. Reduces heat loss through the substrate and improves thermal comfort.

$\lambda \leq 0.036$ W/MK

F05



Bi-directional bending

Grooves on one face let the board flex inward or outward — wrap convex columns and concave arches from the same panel, no re-ordering.

TWO-WAY CONVEX & CONCAVE

F06



Lightweight

Up to 85 % lighter than cement backer boards. One person can carry and position full-size panels — cutting labour and logistics cost.

-85 % VS CEMENT BOARD

F07



Easy to install & cut

Score and snap with a utility knife — no power tools, no dust. Fix to studs, masonry or existing surfaces with screws and pressure washers; adhesive optional for extra hold.

NO DUST SCORE & SNAP

F08



Perfect for curves

Tiles on curved surfaces without cutting or corner framing — cutting time, labour cost, and design compromise in one.

NO FRAMING DIRECT BOND

F09



Cost effective

Dramatically reduces the cost of creating curved tiled features vs. wet plastering, GRG moulding, or custom formwork.

vs GRG FRACTION OF COST

§ 07 · WHERE TO USE

Applications.

From archways to curved spa walls — INSUTILE® Flex Board is specified wherever tile meets a radius. Indoor, dry or wet, above-ground.



Archways & arches

Tile-ready archways in doorways, windows and passageways. Flex Board conforms to the arch radius for a smooth curved soffit.



Curved walls

Feature walls in lobbies, receptions, bathrooms and retail — smooth flowing curves that would be extremely costly by traditional methods.



Columns & pillars

Cylindrical columns, pillars and round shower pods — tiled in a continuous curved skin, no faceting, no cut-and-mitre seams.



Curved shower enclosures

Walk-in showers with curved entry walls or curved interior surfaces — modern, spa-like.



Feature walls & alcoves

Dramatic curved alcoves, niches, and feature walls in residential and commercial interiors.



Spa & wellness centres

Engineered for demanding environments — curved steam rooms, hydrotherapy pools, relaxation areas.

• § 09 · CONTACT & SUPPORT

Leaders in Insulation.

For technical support, product enquiries, specification assistance, or to request a quote — reach the INSUTILE® team directly.

WEBSITE	EMAIL	PHONE
www.insutile.com Latest datasheets · images	insutile@insutech-eg.com Technical + commercial	(+2) 02 23228200 Sun-Thu · 09:00-05:00

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