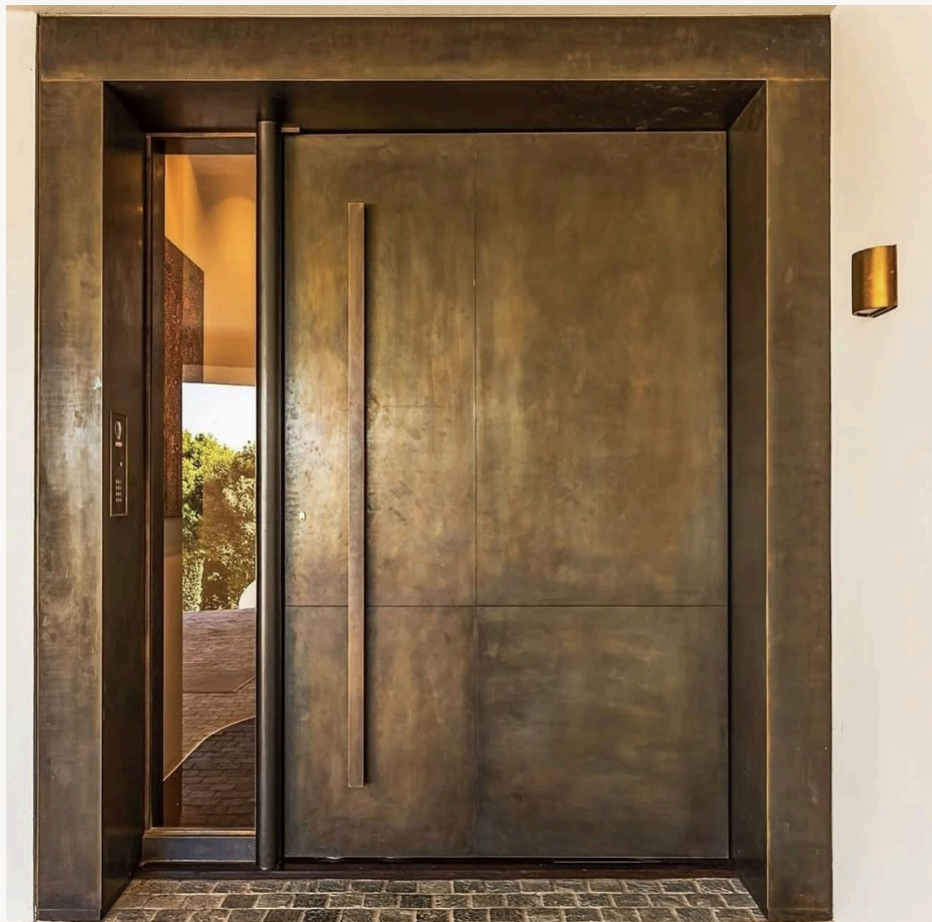


Cultheir

TECHNICAL SPECIFICATIONS

Bespoke Metal Doors

Engineering Excellence in Every Detail

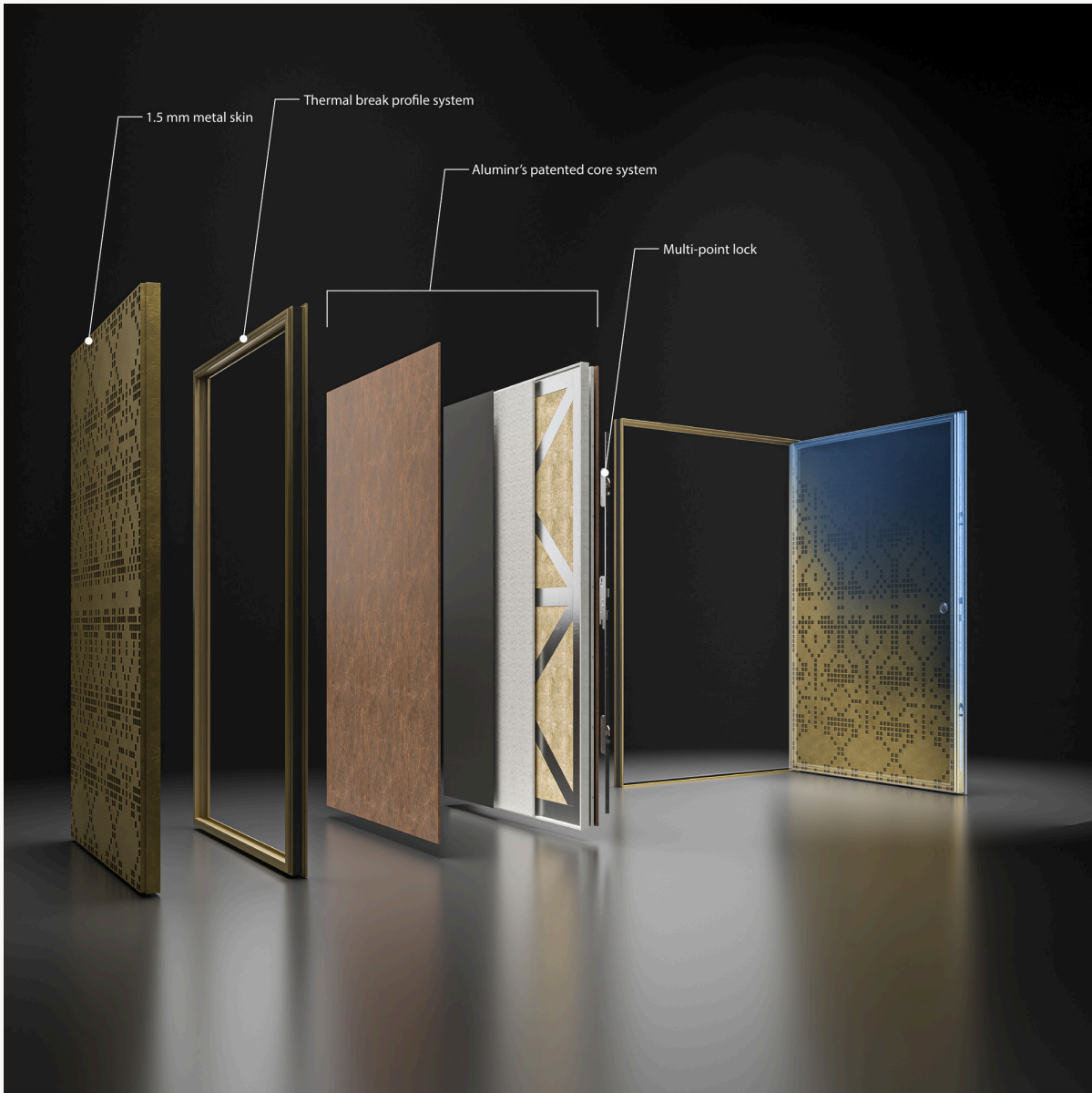


Made by Cultheir's artisan partners in India

cultheir.com

DOOR CONSTRUCTION

Exploded View



1.5mm Metal Skin · Thermal Break Profile System
Patented Core System · Multi-Point Locking
Polyurethane Foam Insulation · Stainless Steel Bracing

H O R I Z O N T A L C R O S S - S E C T I O N

Construction Detail



INSULATION

High-density polyurethane foam core for superior thermal and acoustic performance

REINFORCEMENT

Aluminum structural reinforcement ensures warp-free performance over decades

BRACING

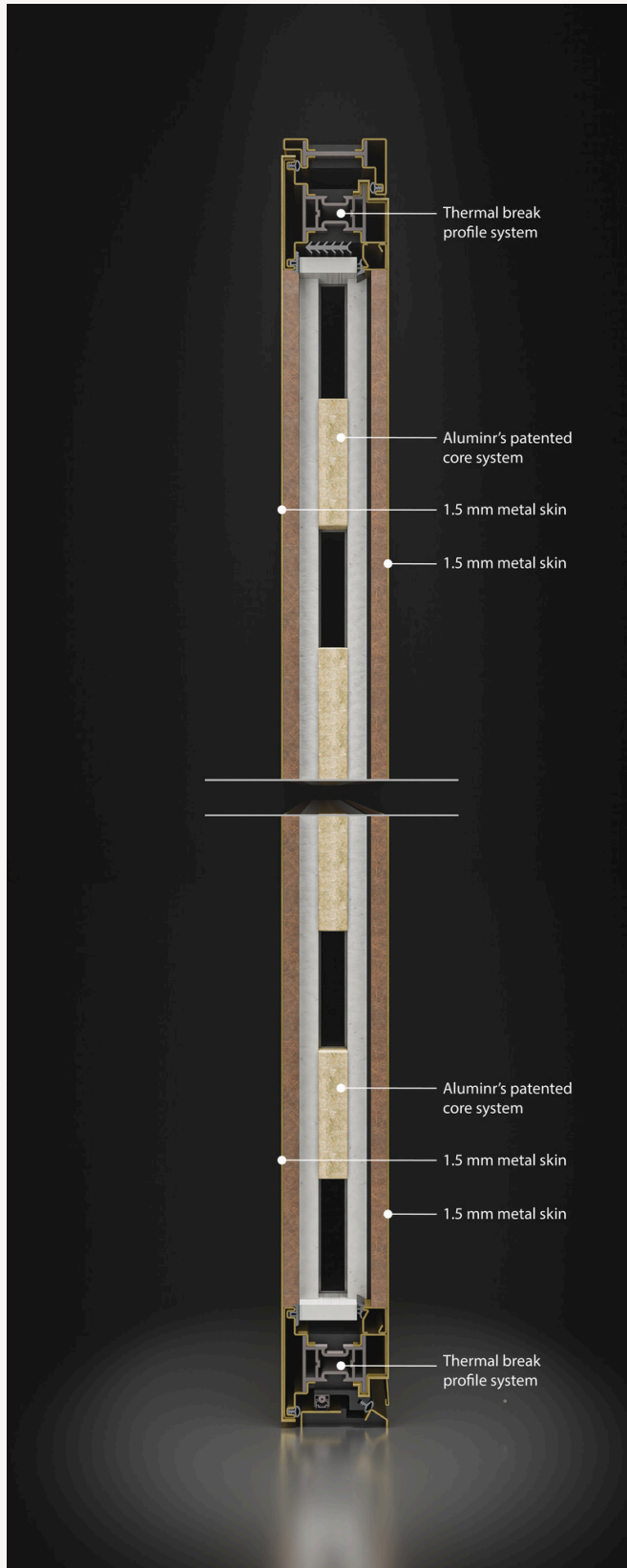
Stainless steel internal bracing provides rigidity without added weight

SEAL

Advanced weather sealing resists air, water, dust, and noise infiltration

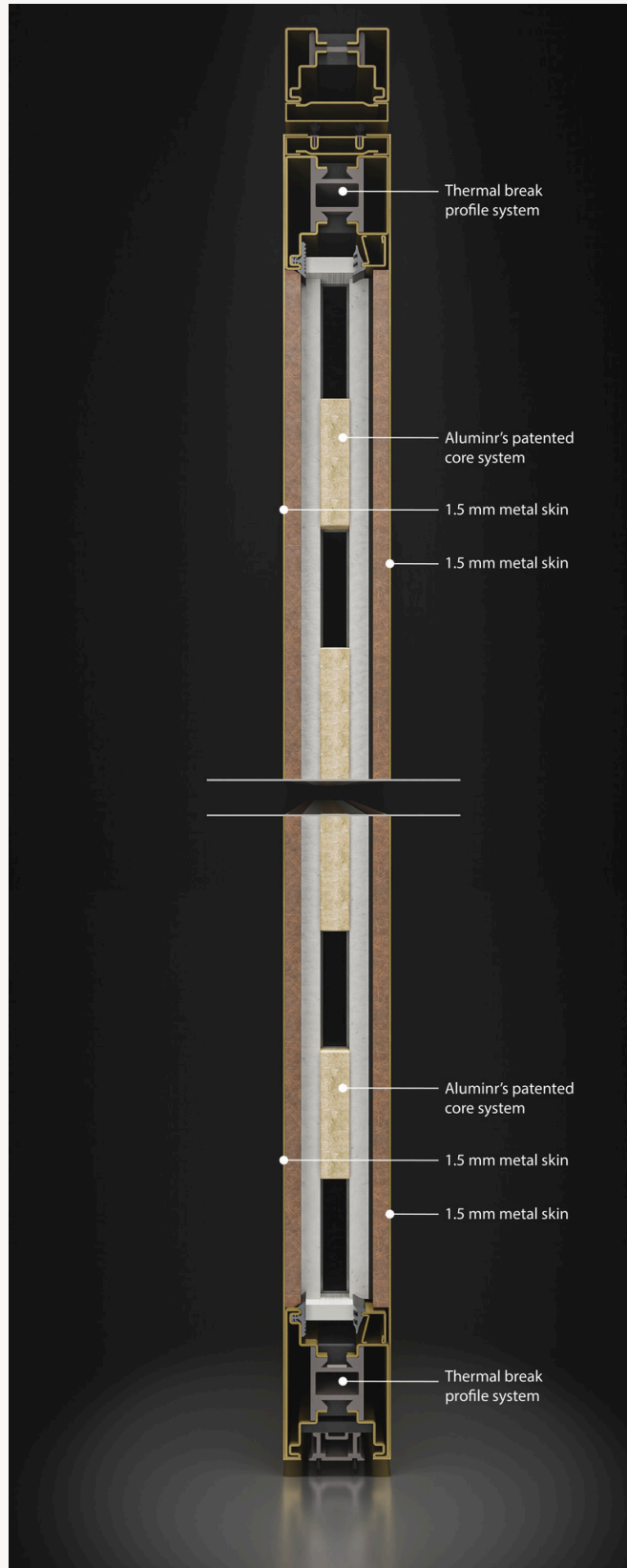
H I N G E D D O O R

Vertical Section



PIVOT DOOR

Vertical Section



P E R F O R M A N C E & H A R D W A R E

PERFORMANCE RATINGS

- Fire Resistant (60 / 90 / 120 minute ratings)
- Water Resistant
- Impact Resistant
- Termite Resistant
- Fungus Resistant
- Warp-Free Guaranteed

HARDWARE SYSTEMS

- FritsJurgens concealed pivot system (up to 300kg, 1,400mm width)
- Concealed 3D-adjustable hinges for precise alignment
- Multi-point locking mechanism for maximum security
- Biometric access options available (fingerprint, facial recognition)
- Smart lock integration compatible

WEATHER SEALING

- Advanced perimeter seals resist air, water, dust, and noise
- Thermal break profile system prevents heat transfer
- Suitable for coastal and extreme climate installations

MATERIALS & FINISHES

- Base metals: Copper, Brass, Bronze, Gunmetal
- Living finishes that develop unique patina over time
- Accent materials: Mother of Pearl, Swarovski crystal
- Semi-precious stones: Malachite, Rose Quartz, Lapis Lazuli
- Custom artisan finishing available on all models

C O N S T R U C T I O N L A Y E R S

Material Specifications

EXTERIOR METAL SKIN — 1.5 MM

Customisable copper, bronze, or brass skins coated with exterior-grade epoxy primer, preserving the natural finish and preventing oxidation.

BOILO COMPOSITE WOOD STABILISING LAYER — 12 MM

Fire-retardant composite — 3x more flame-retardant than ISO 5009:2000 standard.
High-density board (density > 1): impact resistant, water resistant, termite resistant.

STAINLESS STEEL BRACING REINFORCEMENT — 100 MM × 25 MM

Full-height structural section for warp-free stability and long-term rigidity.

POLYURETHANE FOAM INSULATION — 1.112 W/M²K

Closed-cell polyurethane foam for superior thermal and acoustic insulation.
Suitable for extreme temperatures: -30°C to +70°C.

INTERIOR METAL SKIN — 1.5 MM

Customisable copper, brass, or bronze — matching or contrasting the exterior.

BULB-STYLE COMPRESSION WEATHER SEALS

Acoustic, thermal, and weather containment. Withstands -30°C to +70°C.

AUTOMATIC CONCEALED DROP-DOWN SEALS

Embedded threshold sealing for draft and noise elimination.

OVERALL DOOR THICKNESS: 55 MM

DOOR SLAB WEIGHT: 6.8 - 7 KG PER SQ. FT.

Single-sided metal cladding: 4 - 4.5 kg | Double-sided: 6.8 - 7 kg per sq. ft.

CERTIFICATIONS & SPECIFICATIONS

EN 14351-1:2016 Certified · Thermally Broken Door System

EN 12207

Air Permeability: Class 4

Top-tier sealing for superior insulation, energy efficiency, and climate control.

EN 12208

Water Tightness: Class 4A

Tested to endure wind-driven rain and pressure.

EN 12210

Wind Load Resistance: Class C3

Structural strength and stability under extreme wind conditions.

EN 1627

Burglar Resistance: RC3

Designed to deter and delay forced entry with dependable security.

TECHNICAL SPECIFICATIONS

Metric	Specification
Wind Resistance (Test Pressure)	5
Wind Resistance (Frame Bending)	C
Watertightness	2A
Acoustic Insulation	42 (-1;-3) dB
Thermal Transmittance ($U_w, U_g = 0.6 \text{ W/m}^2\text{K}$)	1.12 $\text{W/m}^2\text{K}$
Air Permeability	3
Break-in Resistance	(WK)3
Fire Rating	60 / 90 / 120 minutes