



ARCHITECTURAL ACOUSTICS · ENGINEERING · MANUFACTURING

# AKOVRA

## *Product Catalogue.*

Wall, ceiling, seating, flooring and insulation systems for performance venues — engineered, manufactured and commissioned by one team in Guangzhou.



# Engineering Silence. *Creating Sound.*

AKOVRA designs, manufactures and installs complete acoustic solutions for theatres, opera houses, concert halls, stadiums and conference centres. Founded in Guangzhou in 2009 on a single CNC perforation line, the company today runs a 30,000 m<sup>2</sup> plant, an in-house EN ISO 354 reverberation laboratory, and a turnkey division that carries responsibility from first simulation to commissioned room.

Every coefficient in this catalogue was measured on our own panels in our own lab. Published prices are indicative FOB figures and hold for sixty days; everything else is priced to drawings under the same QC paperwork that ships to site.

*A room is an instrument. We build the parts you don't see and tune the part you can't — the air.*

2009	38	420+	30,000
FOUNDED IN GUANGZHOU	COUNTRIES DELIVERED	VENUES COMPLETED	M <sup>2</sup> MANUFACTURING PLANT

## CERTIFICATIONS & TESTING

EN ISO 354 LAB	ASTM E84 CLASS A	EN 13501-1 B-S1,D0	FSC® COC	E1 FORMALDEHYDE	ISO 9001
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# Nineteen systems, *one* logic.

Absorbers, diffusers, linings, seating, flooring and isolation — built to be specified together. Plain linings ship grain-sequenced to their perforated neighbours; edge banding is colour-matched across the range; every absorber publishes its full octave-band curve, not just the headline number.

WALL SYSTEMS			
MP-05	Velo	Micro-perforated acoustic panel	FROM \$97 / M <sup>2</sup>
PF-16	Stria	Perforated acoustic panel	FROM \$118 / M <sup>2</sup>
SL-21	Linea	Slatted acoustic panel	FROM \$135 / M <sup>2</sup>
FB-50	Tessa	Fabric-wrapped absorber	FROM \$104 / M <sup>2</sup>
WW-15	Fibra Noir	Wood wool acoustic board	FROM \$92 / M <sup>2</sup>
PL-18	Plano	Architectural lining panel	FROM \$93 / M <sup>2</sup>
DF-7	Quanta	QRD diffuser	FROM \$285 / M <sup>2</sup>
AC-22	Banda	Edge band & trims	FROM \$96 / 100 M COIL
PE-09	Filum	PET fibre acoustic board	FROM \$86 / M <sup>2</sup>
SW-28	Trama	Site-stretched fabric system	FROM \$132 / M <sup>2</sup>
CEILING SYSTEMS			
CL-605	Modulo	Acoustic ceiling module	FROM \$128 / M <sup>2</sup>
CB-12	Vela	Suspended acoustic baffle	FROM \$92 / BAFFLE
FM-50	Spuma	Melamine acoustic foam panel	FROM \$58 / M <sup>2</sup>
CC-40	Nimbus	Suspended acoustic raft	FROM \$165 / M <sup>2</sup>
CS-24	Trabea	Slatted acoustic ceiling	FROM \$148 / M <sup>2</sup>
SEATING			
ST-100	Aria	Auditorium chair	FROM \$340 / SEAT
FLOORING			
FL-EP3	Tacet	Sound-damping epoxy floor	FROM \$74 / M <sup>2</sup>
SOUND INSULATION			
PT-100	Murus	Operable acoustic wall	FROM \$520 / M <sup>2</sup>

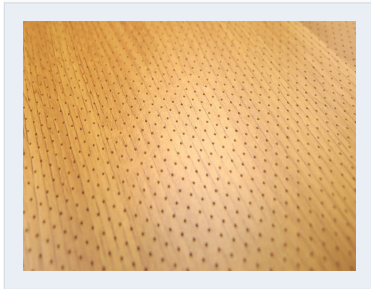
AD-45

Porta

Acoustic doorset

FROM \$1,950 /  
LEAF

# Wall Systems — *absorption.*



MP-05 - WALL SYSTEMS

## Velo

Micro-perforated acoustic panel

An 18 mm MDF panel micro-drilled at V4-2-0.5 — 0.5 mm apertures on a 2 mm pitch, 294,000 per square metre — backed by a 16/8/8 relief grid and acoustic fleece. The perforation disappears at viewing distance; the absorption does not. Veneer grain is laid lengthwise on every panel and sequence-matched across elevations.

**Applications** Opera houses · Drama theatres · Concert halls · Recital rooms

**Finishes** Beech 703 · Walnut 202 · White Oak 901 · Cherry 3320 · Ebony 002

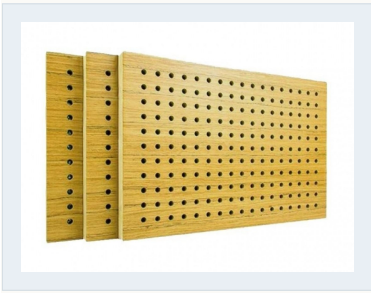
MODULE	600 × 1200 mm
THICKNESS	18 mm MDF E1
FRONT PERFORATION	V4-2-0,5 mm (2-2-0,5 mm) · 294,000 holes/m <sup>2</sup>
BACK RELIEF	16 × 8 × 8 mm grid + acoustic fleece
SURFACE	Natural veneer, grain lengthwise
EDGE	Tongue and groove
MOUNTING	Concealed batten, 50 mm cavity + 32 kg/m <sup>3</sup> wool
FIRE RATING	B-s1,d0 · Class A core on request
INDICATIVE PRICE	from \$97 / m <sup>2</sup> · FOB Guangzhou / Shenzhen

**0.70**

NRC

0.84 with 50 mm wool cavity





# Stria

## Perforated acoustic panel

The workhorse perforated absorber: 10 mm apertures on a 32 mm grid (2.8% open area) over a mineral-wool cavity. Strong selectivity in the speech band, with aperture and pitch adjustable to shift the resonance where the room needs it.

**Applications** Auditoria · Lecture halls · Conference centres · Cinemas

**Finishes** Oak 108 · Teakwood 303 · Maple 502 · Walnut 202 · Cherry 3320

MODULE	605 × 605 / 605 × 1210 mm
THICKNESS	12 / 15 / 18 mm MDF E1
PERFORATION	E16/3-10 · Ø10 mm · 2.8% open
PATTERNS	E · V · U slot on request
SURFACE	Melamine or natural veneer
EDGE	Square, sealed
MOUNTING	Batten or clip-in, 50 mm cavity
FIRE RATING	Class A (ASTM E84) on MgO core
INDICATIVE PRICE	from \$118 / m <sup>2</sup> · FOB Guangzhou / Shenzhen

**0.75**

NRC

with 50 mm wool cavity



# Wall Systems — *texture & fabric.*



SL-21 – WALL SYSTEMS

## Linea

Slatted acoustic panel

Solid-look timber slats bonded to a 9 mm recycled PET felt. Reads as joinery, performs as an absorber — the slot geometry and felt depth were tuned in our reverberation room rather than copied from a moodboard. FSC chain-of-custody on every veneer batch.

**Applications** Foyers · Cultural centres · Universities · Boardrooms

**Finishes** White Oak 901 · Walnut 202 · Teakwood 303 · Ebony 002

MODULE	600 × 2400 mm
THICKNESS	21 mm (12 slat + 9 felt)
SLAT	27 mm face · 12 mm gap
BACKING	9 mm PET felt, 60% recycled
SURFACE	Natural veneer on MDF rib
MOUNTING	Screw through felt or Z-clip
CERTIFICATION	FSC® · E1
FIRE RATING	B-s1,d0
INDICATIVE PRICE	from \$135 / m <sup>2</sup> · FOB Guangzhou / Shenzhen

**0.70**

NRC

tested EN ISO 354, 50 mm cavity



FB-50 – WALL SYSTEMS

## Tessa

Fabric-wrapped absorber

Glass-wool core in a resin or aluminium frame, tensioned in acoustically transparent fabric. The panel that does the heavy lifting when a hall needs broadband absorption without reading as treatment. Bevelled or square edge; any RAL on special order.

**Applications** Cinemas · Studios · Conference centres · Stadium suites

**Finishes** Grey TGG2-004 · Beige TGG2-040 · Silk Light Blue TDY2865 · Grayish Green TGG2-001 · Oyster Grey TGG2-002 · Silk Light Green TDY2888

MODULE	600 × 1200 mm · custom to 1200 × 2700
THICKNESS	25 / 50 mm
CORE	Glass wool 48 kg/m <sup>3</sup>
FRAME	Resin · aluminium · soft edge
FACING	Fabric · leather · fibreglass cloth
EDGE	Bevelled or square
MOUNTING	Z-clip, impaling clip or adhesive
FIRE RATING	Class A (ASTM E84)
INDICATIVE PRICE	from \$104 / m <sup>2</sup> · FOB Guangzhou / Shenzhen

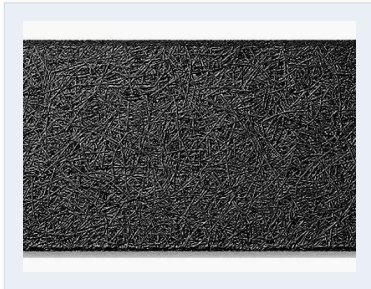
**1.00**

NRC

50 mm · 0.80 at 25 mm (tested)



# Wall Systems — *stage & lining.*



WW-15 – WALL SYSTEMS

## Fibra Noir

Wood wool acoustic board

Wood wool cement board with a 2 mm fibre and a bevelled edge, dyed black through the body so cut edges and screw heads vanish under stage light. At 9 kg/m<sup>2</sup> it hangs on fly-tower steel without argument. Screw or adhesive fix.

**Applications** Stage towers · Fly galleries · Sports halls · Plant rooms

**Finishes** Noir · Natural · Ash Grey

MODULE	600 × 1200 mm
THICKNESS	15 mm · 25 / 35 on request
FIBRE	2 mm wood wool, cement bonded
DENSITY	9 kg/m <sup>2</sup>
EDGE	Bevelled
COLOUR	Black through-dyed · natural · grey · RAL
MOUNTING	Screw or adhesive, direct or on battens
FIRE RATING	B-s1,d0
INDICATIVE PRICE	from \$92 / m <sup>2</sup> · FOB Guangzhou / Shenzhen

**0.55**

NRC

0.80 with 50 mm cavity



PL-18 – WALL SYSTEMS

## Plano

Architectural lining panel

Plain 18 mm MDF lining in laminate or sequence-matched veneer, tongue-and-groove jointed so elevations read as a single surface. Acoustically reflective by design — it is the controlled counterpart to the absorbers, and it ships grain-matched to Velo so treated and untreated bays are indistinguishable.

**Applications** Auditoria · Corridors · Balcony fronts · Technical galleries

**Finishes** Beech 703 · Oak 108 · Walnut 202 · Maple 502 · White Oak 901

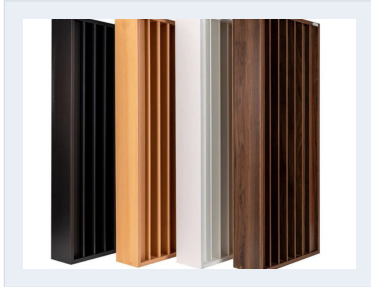
MODULES	600 × 1200 · 1200 × 2400 mm
THICKNESS	18 mm MDF E1
SURFACE	Laminate or natural veneer
EDGE	Tongue and groove
MATCHING	Grain-sequenced to MP-05 Velo
ACCESSORY	AC-22 Banda edge band, colour matched
MOUNTING	Concealed batten or adhesive
FIRE RATING	B-s1,d0 · Class A core on request
INDICATIVE PRICE	from \$93 / m <sup>2</sup> · FOB Guangzhou / Shenzhen

**0.05**

NRC

reflective lining, by design

# Wall Systems — *diffusion & stretched.*



DF-7 – WALL SYSTEMS

## Quanta

QRD diffuser

A quadratic-residue diffuser built from seven solid timber staves of computed depth. Where absorption would leave a hall dry, Quanta redistributes energy — flutter echoes dissolve, reverberance stays. Supplied in tuned modules for 500 Hz–4 kHz design bands.

**Applications** Concert halls · Recital rooms · Control rooms · Rear walls

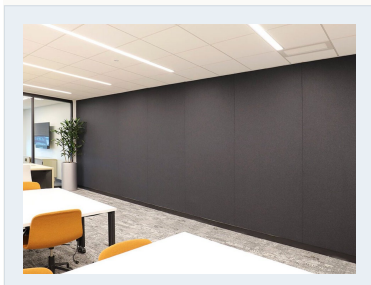
**Finishes** White Oak 901 · Walnut 202 · Cherry 3320

MODULE	600 × 600 · 600 × 1200 mm
DEPTH	120 mm max well
SEQUENCE	N=7 quadratic residue
MATERIAL	Solid-stave timber on ply carcass
DESIGN BAND	500 Hz – 4 kHz
MOUNTING	French cleat
FINISH	Oiled or lacquered veneer
FIRE RATING	B-s1,d0 lacquer system
INDICATIVE PRICE	from \$285 / m <sup>2</sup> · FOB Guangzhou / Shenzhen

**0.72**

scattering coefficient, ISO 17497

S



SW-28 – WALL SYSTEMS

## Trama

Site-stretched fabric system

A perimeter track system tensioned on site: aluminium profiles, mineral-wool infill, and acoustically transparent fabric stretched drum-tight in one run. Where panel joints would read as grid, Trama reads as wall — curves, reveals and pilasters included.

**Applications** Auditoria · Cinemas · Courtrooms · Boardrooms

**Finishes** Grey TGG2-004 · Beige TGG2-040 · Silk Light Blue TDY2865 · Grayish Green TGG2-001 · Oyster Grey TGG2-002 · Silk Light Green TDY2888

SYSTEM DEPTH	28 / 45 mm
TRACK	Aluminium, 4 profiles
INFILL	Mineral wool 48 kg/m <sup>3</sup>
FABRIC	13 colourways · client fabric on approval
RUN LENGTH	Seamless to 30 m
GEOMETRY	Curves & reveals formed on site
MOUNTING	Track screwed to substrate
FIRE RATING	Class A system
INDICATIVE PRICE	from \$132 / m <sup>2</sup> · FOB Guangzhou / Shenzhen

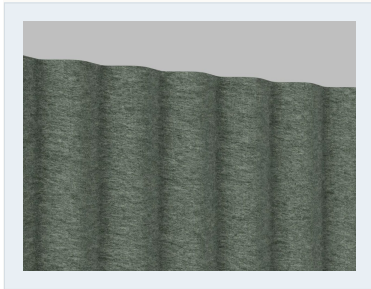
**0.85**

45 mm system, tested

NRC



# Wall Systems — *fibre & detail.*



PE-09 – WALL SYSTEMS

## Filum

PET fibre acoustic board

Rigid boards pressed from polyester fibre, sixty percent recycled bottle flake. Strong enough to span, soft enough to pin, and clean enough off the CNC that the cut edge is the detail — screens, wall fields, baffles and ceiling tiles from one board.

**Applications** Open offices · Universities · Foyers · Screens & dividers

**Finishes** PET Slate · PET Marigold · PET Denim · PET Ecu

MODULE	1200 × 2400 mm
THICKNESS	9 / 12 / 24 mm
MATERIAL	100% PET, 60% recycled
WEIGHT	1.9 kg/m <sup>2</sup> at 9 mm
COLOURS	24 standard
EDGE	CNC routed, exposed
MOUNTING	Adhesive, pin or splines
FIRE RATING	B-s1,d0
INDICATIVE PRICE	from \$86 / m <sup>2</sup> · FOB Guangzhou / Shenzhen

0.45

NRC

9 mm direct · 0.80 with 50 mm cavity



AC-22 – WALL SYSTEMS

## Banda

Edge band & trims

Colour- and grain-matched PVC edge banding for site-cut panels, returns and joinery interfaces, supplied on 100 m coils with matched silicone and touch-up. Small line, large consequence: it is why a field cut reads as a factory edge.

**Applications** Site cuts · Joinery interfaces · Returns · Furniture

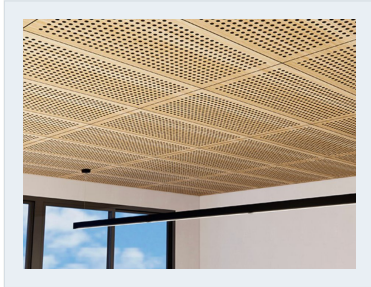
**Finishes** Beech 703 · Oak 108 · Walnut 202 · Maple 502

SECTION	0.8 × 22 mm
MATERIAL	PVC, matt veneer print
COLOURS	Matched to all AKOVRA finishes
COIL	100 m
APPLICATION	EVA / PUR hot melt
RADIUS	2 mm min
ACCESSORIES	Matched silicone · touch-up wax
FIRE RATING	Self-extinguishing
INDICATIVE PRICE	from \$96 / 100 m coil · FOB Guangzhou / Shenzhen

n/a

finishing accessory

# Ceiling Systems — *modules & foam.*



CL-605 – CEILING SYSTEMS

## Modulo

Acoustic ceiling module

The E-pattern perforation carried into the ceiling plane: 605 × 605 modules for exposed grid or concealed clip-in, fleece-backed, with cut-out service apertures CNC'd to your reflected ceiling plan before dispatch.

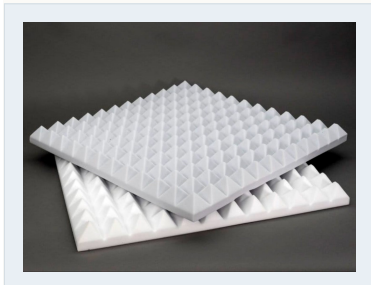
**Applications** Conference centres · Universities · Lobbies · Studios

**Finishes** Maple 502 · Oak 108 · White Oak 901 · Walnut 202

MODULE	605 × 605 mm
THICKNESS	15 / 18 mm
PERFORATION	E16/3-10 or micro V4
BACK	Acoustic fleece
GRID	T-15 / T-24 exposed · concealed clip
SERVICES	Pre-cut apertures to RCP
SURFACE	Melamine or veneer
FIRE RATING	Class A (ASTM E84) on MgO core
INDICATIVE PRICE	from \$128 / m <sup>2</sup> · FOB Guangzhou / Shenzhen

**0.75**  
NRC

200 mm plenum



FM-50 – CEILING SYSTEMS

## Spuma

Melamine acoustic foam panel

Flexible open-cell melamine foam — a fraction of the weight of mineral wool, with fire behaviour PU pyramid foam can only promise. Flat-faced panels bond directly to soffits and upper walls where battens cannot go, and cut clean with a knife on site.

**Applications** Plant rooms · Studios · Cinemas · Ceiling voids

**Finishes** Foam Light Grey · Foam White

MODULE	600 × 600 · 1200 × 600 mm
THICKNESS	50 mm · 25 / 100 on request
MATERIAL	Open-cell melamine resin foam
DENSITY	9 kg/m <sup>3</sup>
WEIGHT	≈ 0.16 kg per 600 × 600 panel
COLOURS	Light grey · white
MOUNTING	Contact adhesive, direct bond
FIRE RATING	Class A (ASTM E84) · B-s1,d0
INDICATIVE PRICE	from \$58 / m <sup>2</sup> · FOB Guangzhou / Shenzhen

**0.90**  
NRC

50 mm, direct mount



# Ceiling Systems — *baffles & rafts.*



## CB-12 – CEILING SYSTEMS

### Vela

Suspended acoustic baffle

A 40 mm PET-felt fin hung on stainless aircraft cable. For sports halls, atria and studios where the structure stays exposed but the reverberation cannot. Each baffle contributes 1.9 m<sup>2</sup> Sabine of absorption at 1 kHz; spacing is calculated, not guessed.

**Applications** Stadium concourses · Atria · Sports halls · Open offices

**Finishes** PET Slate · PET Marigold · PET Denim · PET Ecu

MODULE	1200 × 400 × 40 mm
MATERIAL	PET felt, 60% recycled
WEIGHT	2.1 kg per baffle
SUSPENSION	Ø1.5 stainless cable, adjustable
ABSORPTION	1.9 m <sup>2</sup> Sabine @ 1 kHz
COLOURS	12 standard
FIRE RATING	B-s1,d0
LEAD TIME	15 days
INDICATIVE PRICE	from \$92 / baffle · FOB Guangzhou / Shenzhen

**0.85**

AW

per EN ISO 11654



## CC-40 – CEILING SYSTEMS

### Nimbus

Suspended acoustic raft

A 40 mm PET raft hung flat on adjustable cables. Open plenums leave both faces in play, so each square metre absorbs nearly twice its area's worth — reverberation control that never touches the soffit.

**Applications** Atria · Open offices · Restaurants · Sports halls

**Finishes** PET Ecu · PET Slate · PET Denim · PET Marigold

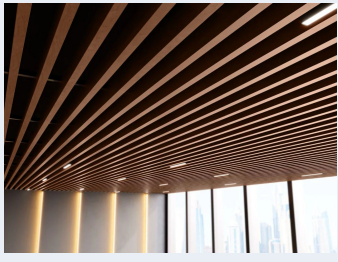
MODULE	1200 × 1200 · 2400 × 1200 mm
THICKNESS	40 mm
MATERIAL	PET felt, 60% recycled
ABSORPTION	Both faces active
SUSPENSION	Ø1.5 stainless cable, 4-point
WEIGHT	≈ 7 kg per 1200 × 1200
COLOURS	12 standard
FIRE RATING	B-s1,d0
INDICATIVE PRICE	from \$165 / m <sup>2</sup> · FOB Guangzhou / Shenzhen

**0.95**

AW

per EN ISO 11654, free hanging

# Ceilings & Seating.



## CS-24 – CEILING SYSTEMS

### Trabea

Slatted acoustic ceiling

Linea's tuned slat-and-felt section carried onto the ceiling plane on concealed aluminium rails. Panels demount individually for services access, and the 27/12 rhythm runs unbroken from wall to soffit when both are specified together.

**Applications** Foyers · Boardrooms · Restaurants · Cultural centres

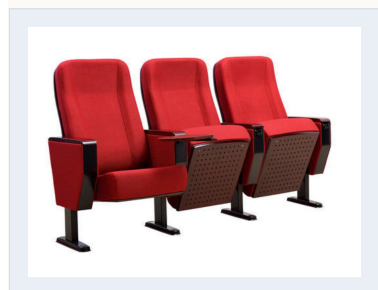
**Finishes** White Oak 901 · Walnut 202 · Teakwood 303 · Ebony 002

MODULE	600 × 2400 mm
SECTION	27 mm slat · 12 mm gap
BACKING	9 mm PET felt
CARRIER	Concealed aluminium rail
ACCESS	Individually demountable
SURFACE	Natural veneer
CERTIFICATION	FSC® · E1
FIRE RATING	B-s1,d0
INDICATIVE PRICE	from \$148 / m <sup>2</sup> · FOB Guangzhou / Shenzhen

**0.75**

NRC

200 mm plenum



## ST-100 – SEATING

### Aria

Auditorium chair

A beech-ply shell on a cast-aluminium standard, upholstered over a perforated seat pan. Its measured absorption — 0.35 m<sup>2</sup> Sabine per chair unoccupied — is matched to an occupied human within ±10%, so RT60 holds steady whether the house is sold out or papered.

**Applications** Opera houses · Theatres · Concert halls · Lecture theatres

**Finishes** Grey TGG2-004 · Silk Light Blue TDY2865 · Beige TGG2-040 · Cherry 3320

WIDTH	520 / 550 / 580 mm centres
SHELL	11-ply beech, formed
STANDARD	Cast aluminium, floor or riser fix
SEAT	Gravity tip-up, silent damper
UPHOLSTERY	Wool blend, Crib 5 · leather option
ABSORPTION	0.35 m <sup>2</sup> Sa per chair, mid-band
ACCESSORIES	Writing tablet · aisle light · numbering
FIRE RATING	BS 5852 Crib 5 · CAL TB 133
INDICATIVE PRICE	from \$340 / seat · FOB Guangzhou / Shenzhen

**0.35**

M<sup>2</sup> SA

per chair, unoccupied, 500–2k Hz

# Flooring & *Insulation.*



FL-EP3 – FLOORING

## Tacet

Sound-damping epoxy floor

Three-layer resin system: elastic polyurethane damping mat, quartz-filled epoxy body coat, matte wear seal. Footfall and trolley noise drop by  $\Delta Lw$  18 dB while the surface stays seamless, cleanable and dead flat for stage machinery.

**Applications** Backstage · Studios · Galleries · Plant corridors

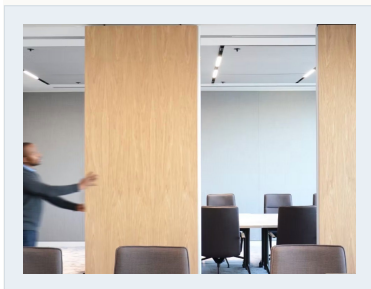
**Finishes** Basalt Matte · Sand Matte

BUILD-UP	3 mm PU mat + 4 mm epoxy + seal
IMPACT IMPROVEMENT	$\Delta Lw$ 18 dB (ISO 717-2)
SURFACE	Matte, R10 slip rating
HARDNESS	Shore D 78
COLOURS	Basalt · Sand · RAL on request
SUBSTRATE	Concrete, moisture < 4% CM
CURE	Foot traffic 24 h · full 7 days
FIRE RATING	Bfl-s1
INDICATIVE PRICE	from \$74 / m <sup>2</sup> · FOB Guangzhou / Shenzhen

**18 dB**

$\Delta Lw$

impact sound improvement



PT-100 – SOUND INSULATION

## Murus

Operable acoustic wall

Top-hung operable partition on a single overhead track — no floor guide to trip a ballroom. Steel-faced panels with twin seals and soundproof infill isolate to  $Rw$  53 dB, so a congress can run two programmes either side of one wall.

**Applications** Conference centres · Ballrooms · Universities · Multi-form halls

**Finishes** Beige TGG2-040 · Grey TGG2-004 · Walnut 202 · Oak 108

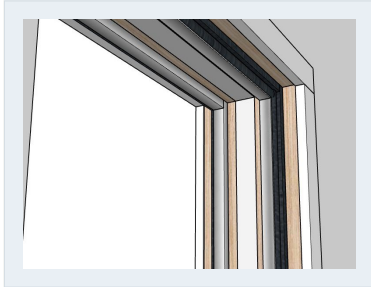
TYPE	100 series · 65 series
PANEL	100 mm · steel face, soundproof infill
INSULATION	$Rw$ 53 dB (100) · $Rw$ 45 dB (65)
HEIGHT	to 9.0 m
TRACK	Top-hung, no floor guide
SEALS	Retractable top + bottom, 25 mm throw
PARKING	Stack, pocket or remote
FINISH	Fabric · veneer · HPL · marker board
INDICATIVE PRICE	from \$520 / m <sup>2</sup> · FOB Guangzhou / Shenzhen

**53 dB**

$Rw$

laboratory, EN ISO 10140

# Sound Insulation — *doors.*



AD-45 – SOUND INSULATION

## Porta

Acoustic doorset

A wall is only as quiet as its door. Porta pairs a heavy composite leaf with twin compression seals and an automatic drop seal, factory-hung in a steel frame so the laboratory number survives the site. Single and paired leaves, vision panels on request.

**Applications** Studios · Auditoria · Plant rooms · Courtrooms

**Finishes** Oak 108 · Walnut 202 · Beech 703

RATING	Rw 35 / 40 / 45 dB
LEAF	54–64 mm composite
FRAME	Steel, pre-hung & sealed
SEALS	Twin compression + automatic drop seal
SIZES	to 1200 × 2400 single leaf
HARDWARE	SS lever · panic set on request
FINISH	Veneer · HPL · paint
FIRE RATING	EI30 / EI60 options
INDICATIVE PRICE	from \$1,950 / leaf · FOB Guangzhou / Shenzhen

**45 dB**

RW

laboratory, EN ISO 10140

### HOW WE WORK

Six stages, *one* answerable number.

01	02	03	04	05	06
<b>Consult</b>	<b>Measure &amp; simulate</b>	<b>Design</b>	<b>Manufacture</b>	<b>Install</b>	<b>Tune</b>
We start with the programme, not the panel: what the room is for, who performs, who listens.	Impulse responses on retrofits, ray-trace and FEM models on new builds. Targets in numbers, not adjectives.	Perforation, cavity and layout engineered to the model — then drawn to the millimetre for fabrication.	CNC perforation, veneer sequencing and finishing in one 30,000 m <sup>2</sup> plant under ISO 9001.	Our crews or your contractor under our supervision — setting-out files, jigs and torque specs included.	Commissioning measurements against the model. We adjust until RT60 lands inside ±0.1 s of target.

## FINISHES

# Real codes, *matched* across systems.

Veneer and melamine references follow our supplier finish charts; fabric colourways carry their card codes. One finish code specified once applies across panels, linings and edge band — that is what keeps a 17,000 m<sup>2</sup> elevation reading as a single surface.

### NATURAL VENEER



Beech 703

Walnut 202

Ebony 002

White Oak 901

Cherry 3320

### MELAMINE



Oak 108

Teakwood 303

Maple 502

### ACOUSTIC FABRIC



Grey TGG2-004

Beige TGG2-040

Silk Light Blue  
TDY2865

Grayish Green  
TGG2-001

Oyster Grey  
TGG2-002

Silk Light Green  
TDY2888

### PET FELT



PET Slate

PET Marigold

PET Denim

PET Ecu

### MELAMINE FOAM



Foam Light Grey

Foam White

### WOOD WOOL



Noir

Natural

Ash Grey

### EPOXY / RESIN



Basalt Matte

Sand Matte

### Absorption coefficient $\alpha$

Fraction of incident sound energy a surface removes per octave band, 125 Hz – 4 kHz, measured in our EN ISO 354 reverberation room.

### NRC

Average of  $\alpha$  at 250 / 500 / 1000 / 2000 Hz, rounded to 0.05. We publish the full curve as well — the bass behaviour decides the hall.

### RT60

Time for sound to decay by 60 dB. Opera wants 1.6–1.9 s, drama under 1.1 s, cinema near 0.4 s. We commission to  $\pm 0.1$  s of target.



# Tell us what the room is for. *We'll engineer how it sounds.*

## EMAIL

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## HEADQUARTERS & PLANT

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## COMMERCIAL TERMS

PRICING	Project-based, on application (POA)
DELIVERY	FOB Guangzhou / Shenzhen · CIF on request
LEAD TIME	25–35 days from drawing approval, volume dependent
PAYMENT	T/T — 30% deposit, balance against shipping documents
DOCUMENTATION	Setting-out files, test reports and QC dossier with every shipment
VALIDITY	Quotations valid 60 days