ELEPHANT
Gypsum Board

Multi**Wall**
by Elephant Gypsum Board

Strong, Safe, and Private Partition Systems

MultiWall
System
by Elephant Gypsum Board

Suitable for multi-purpose building such as hotels, hospitals, movie theaters, factories, and educational facilities. Provides strength, privacy, and safety with sound-proofing and fire-proofing. Furthermore, it is simple to modify when a renovation is required and can be used to creatively design the area due to its smooth appearance.

The Elephant MultiWall system is the ideal solution for all of your needs.

Board Types

MultiWall

MultiWall Board

Elephant MultiWall has a high density, is sound-proof, and can be used as a fire-proof wall*. Typically used when superior strength is required.

*According to Ministerial Regulation No. 55 (B.E. 2543) issued by virture of the Building Control Act, B.E. 2522

MultiWall MR

MultiWall Moisture Resistant Board

With the addition of a moisture resistant formula, MultiWall MR is now able to withstand moisture, making it suitable for bathroom areas or areas with water-related activity.

Product Data

MultiWall comes in two sizes.
- 1200 x 2400 x 15 mm Tapered edge
- 1200 x 2800 x 15 mm Tapered edge

Elephant MultiWall System is a complete system that can be used for any design implementation and has the benefits of 3S.

STRENGTH

Durability

Passed the BS 5234 durability test and the ″Severe Duty″ tier, which has a strength equal to a brick/mortar built wall.
Guaranteed to be strong and durable, with the ability to attach a hanging point weighing up to 20–30 kg per point*.

SAFETY

In the event of fire

Able to withstand a fire accident for up to 1–2** hours (when installed with a fully completed MultiWall system), giving residents enough time to safely evacuate the area.
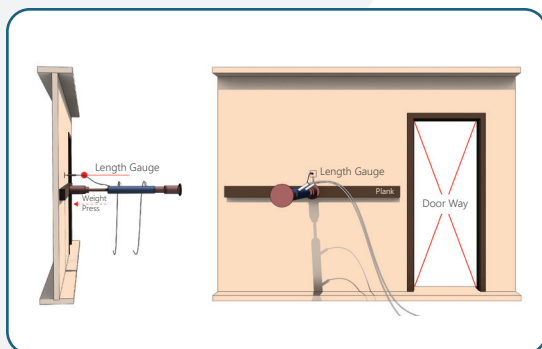
SILENCE

Privacy

Create a private space with superior sound performance that outperforms a brick/mortar wall***, with the ability to block sound up to 41–58 dB**.
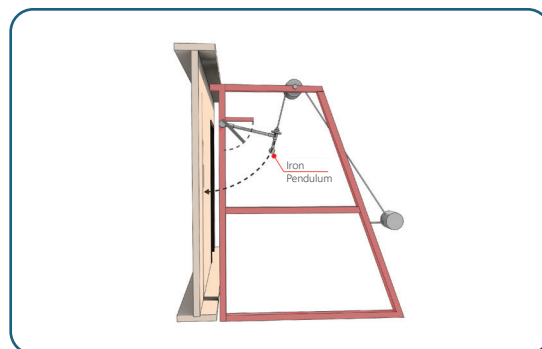
* Depend on the bolt type
** Able to design the system as desired
*** Refer to Performance Comparison Table between Elephant MultiWall system and Conventional Wall system.
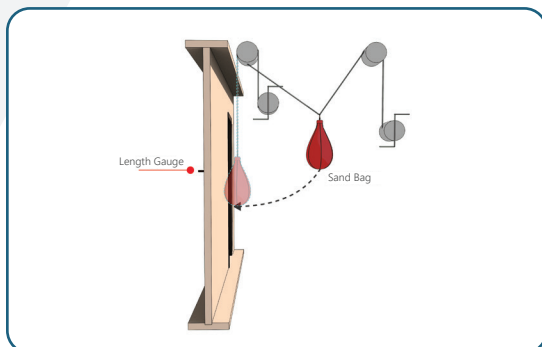
Elephant MultiWall System is qualified for Severe Duty (SD) according to BS 5234 standard.

A strength test using a 750 kg weight press at 1.2 m in height resulted in no damage to the wall.

Surface damage and penetration protection tests were carried out using a 3 kg pendulum with a diameter of 50 mm released from a height of 1 m
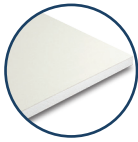

Damage resistant and structure deformation resistant tests using 50 kg of crushed sand bag into the wall resulted in no damage to the wall.

The door slammed test, which involved using a 60 kg door and closing it with a force of 15 kg 100 times, yielded no damage.
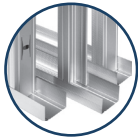
Elephant MultiWall System **Characteristic**

It is a strong, durable, and light–weight interior wall that can support itself without the use of a beam, requiring less installation time than other systems.

Elephant MultiWall Board
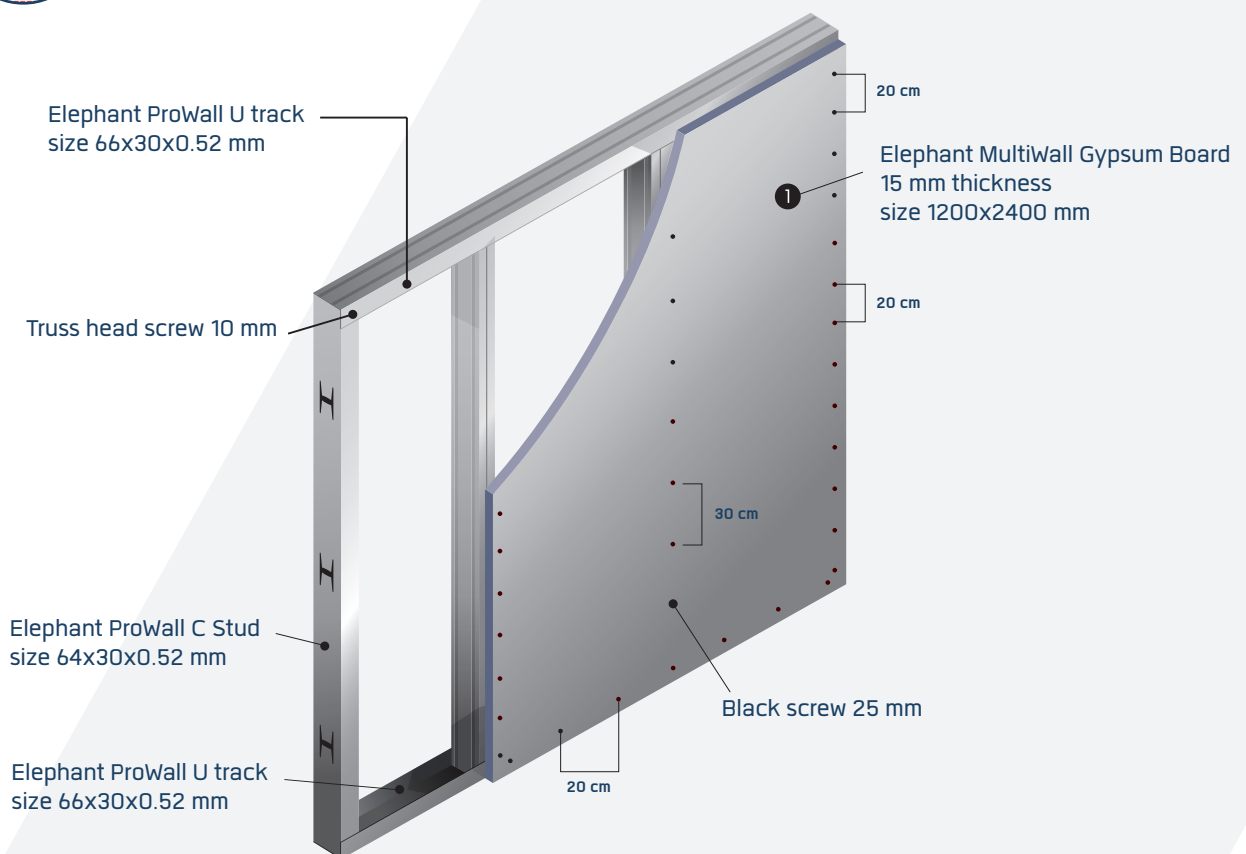Extra thick partition gypsum board with the size of 1200x2400x15 mm

Elephant Partition Metal Profile – ProWall
Certified TIS 863–2532 standard. With a thickness of 0.52 mm, it is made of Hot Dip Galvanized Steel in accordance with TIS 50–2538.

Elephant Jointing Compound – EasyJoint 120
To coat the joint between each gypsum board, use Elephant Cotton Tape or at least 3.5 cm wide cotton.

Elephant ProWall U track size 66x30x0.52 mm

Truss head screw 10 mm

Elephant ProWall C Stud size 64x30x0.52 mm

Elephant ProWall U track size 66x30x0.52 mm

20 cm

Elephant MultiWall Gypsum Board 15 mm thickness size 1200x2400 mm

20 cm

30 cm

Black screw 25 mm

20 cm

Specification

Elephant MultiWall System qualified for 1) Highest wall strength level (Severe Duty), tested by following BS 5234 part 2 standard, 2) Has a fire resistant longer than 1 hour, tested by following BS 476 part 22 standard and 3) Has a STC at 41–58* dB, tested by following ASTM E90 standard.

Use Elephant MultiWall gypsum board 15 mm size 1200x2400 mm produced by following TIS. 219–2552, ASTM C1396 and BS EN 520 standard 1 layer on each side, fixed with a black screw 25 mm Elephant ProWall C Stud 64 size 64x36 (34) x0.52 mm is installed in conjunction with the Elephant ProWall system.and Elephant ProWall U Track 66 size 66x30x0.52 mm qualified by TIS. 863–2532 produced from Hot Dip Galvanized Steel 220 g/m^2 following TIS. 50–2561and JIS G 3302. Coated the joint with Elephant EasyJoint 120, manufactured by The Siam Gypsum Industry (Saraburi) Co., Ltd.

It is recommended to install the product in accordance with the manufacturer's instructions. Able to add Elephant NoizeBloc 50 mm to enhance sound block performance (optional) and recommend using additional fire resist and sound block sealant (that passed the international standard test e.g. ASTM E119, BS 476 part 22, EN 1364–1,or UL) to further enhance the fire resistant and sound performance.

*Double frame installation with additional layer of Elephant FireBloc 12 mm on each side and 1 layer of 50 mm insulation (SSW–245 system).

Elephant MultiWall System **Properties**

System	Components		Thickness (mm)	Weight (kg/m²)	Height (m)	STC (dB)	Fire resist (minutes)	Partition Grade
SSW–060	Board Profile	Elephant MultiWall 15 mm Elephant ProWall C64, U66 @ 600 mm	94	30	4.4	41	60	Severe Duty
SSW–065	Board Profile Insulation	Elephant MultiWall 15 mm Elephant ProWall C64, U66 @ 600 mm Elephant NoizeBloc 50 mm	94	35	4.4	48	60	Severe Duty
SSW–100	Board Profile	Elephant MultiWall 15 mm double layer Elephant ProWall C64, U66 @ 600 mm	124	60	5.7	50	120	Severe Duty
SSW–135	Board Profile Accessory Insulation	Inner layer Elephant FireBloc 12 mm Outer layer Elephant MultiWall 15 mm Elephant ProWall C74, U76 @ 600 mm Elephant Resilent Bar @ 600 mm Rockwool 40k 50 mm	145	58	4.6	56	120	Severe Duty
SSW–245	Board Profile Insulation	Inner layer Elephant FireBloc 12 mm Outer layer Elephant MultiWall 15 mm Elephant ProWall C50, U52 @ 600 mm Rockwool 40k 50 mm	200	58	5.9	58	120	Severe Duty

Notes :

– When the deflection rate is less than L/240, design the wall height using the 24kg/m² side impact force.

– The sound test complied with the ASTM E90 standard.

– The Fire resistant test complied with the BS 476 p22 standard.

– The strength test complied with the BS 5234 standard.

Recommended Usage Areas

- **Wall between rooms** that require privacy and safety.
- **Interior walls** that need an aesthetic look with a strong and smooth surface.
- **Hallway** that requires a strong, durable, and smooth surface.

Recommended Sound Transmission Class for Hotel and Hospital wall

Hotel

40 ← Minimum acceptable rate
50 ← Minimum rate for high standard work

STC	Hallway	Electrical room	Dinning area	Activity hall	Lobby	Working Area	Meeting room	Guest room
Hallway	X							
Electrical room	55/60	37/42						
Dinning area	40/50	55/60	40/50					
Activity hall	45/55	55/60	45/50	55/60				
Lobby	40/45	55/60	40/50	45/55	40/45			
Working area	40/45	55/60	48/55	55/60	48/55	40/50		
Meeting area	45/55	55/60	50/55	55/60	50/55	48/55	48/55	
Guest room	50/55	55/65	60/65	60/65	50/55	50/55	60/65	50/55

Hospital

40 ← Minimum acceptable rate
50 ← Minimum rate for high standard work

STC	Waiting area	Operation room	Treatment room	Patient room	Diagnostic room	Private room
Waiting area	35/40					
Operation room	37/42	37/42				
Treatment room	45/50	45/50	45/50			
Patient room	45/50	45/50	45/50	45/50		
Diagnostic room	45/50	45/50	45/50	45/50	45/50	
Private room	40/45	45/50	45/50	45/50	45/50	45/50

STC Selection Example

Resident

40 ← Minimum acceptable rate
50 ← Minimum rate for high standard work

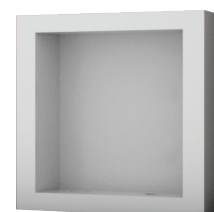| STC	Hallway	Kitchen	Living room	Family room	Bathroom	Bedroom
Hallway	X					
Kitchen	40/45	45/50				
Living room	45/50	48/55	48/55			
Family room	40/45	45/50	45/50	40/45		
① Bathroom	45/50	45/50	50/55	48/55	50/55	
② ③ Bedroom	48/55	52/60	50/60	48/60	50/55	50/55

Wall ① between living room and bathroom 50/55 **STC50 is STC55** are recommended

Wall ② between living room and bedroom 50/60 **STC50 is STC60** are recommended

Wall ③ between bedroom and bathroom 50/55 **STC50 is STC55** are recommended

*Note :   If a high-quality wall is required, the lower case of STC figures should be used in the design
as it is the minimum rate for high-quality work.*

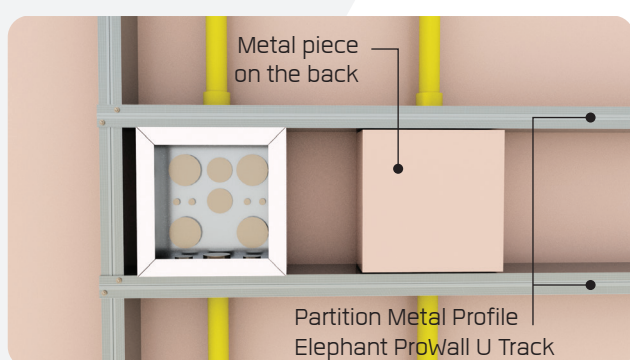# Additional Accessories for Elephant MultiWall System

MultiWall Socket Box

The light switch box is the main way that fire spreads when a fire accident occurs, and it is also the way that sound can pass through.The **MultiWall Socket Box** can block both fire and sound from going through by installing a light switch in the MultiWall Socket Box.
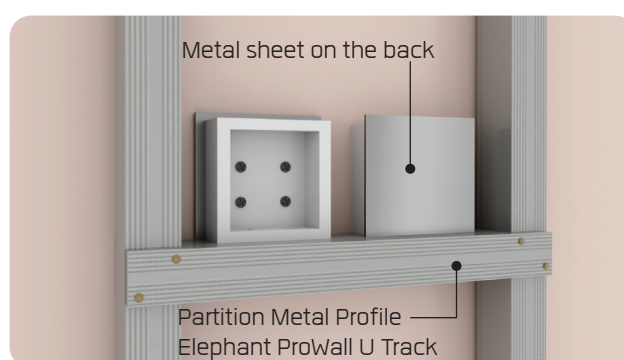
MultiWall Socket Box

MultiWall Socket Box Installation

Metal piece on the back

Partition Metal Profile
Elephant ProWall U Track

Metal sheet on the back

Partition Metal Profile
Elephant ProWall U Track

1. Install by attaching Elephant ProWall U Track at the top and bottom of the socket box, then screwing them together.

2. Install by placing a metal sheet thicker than 0.5 mm at the back of the box and screwing it together with the gypsum board.

Elephant NoizeBloc
Sound Insulation

Provides sound block for wall and ceiling

Elephant NoizeBloc is a sound insulation made of glass wool that has been formed into a board using modern technology. It is non-combustible, has low moisture absorption, and is anti-mold. It is used to enhance the sound block capability of the Elephant MultiWall system.

	Size (mm)	Thickness (mm)	Density (Kg/m³)	Installation Method
Elephant NoizeBloc 50 mm	600 x 1200	50	24	Install with Metal Profile
Elephant NoizeBloc 25 mm	600 x 1200	25	32	Install with Metal Profile

Project that used Elephant MultiWall System

Hotel

- Waldorf Astoria Bangkok (Hilton HONORS)
- M–I 4 (Mercure ibis, Accor Hotels)
- Somerset Rama 9 Bangkok (ASCOTT)
- Novotel Living Sukhumvit 34 (Accor Hotels)
- COSI Pattaya Wong Amat Beach
- VELA Dhi Udon Thani

Hospital

- Chakri Naruebodindra Medical Institute
- Paolo Memorial Hospital Rangsit
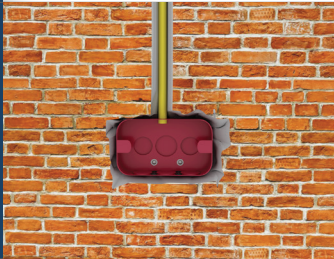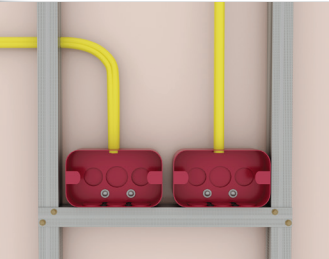- Piyavet Hospital
- Ratchaphruek Hospital Khon Kaen

Office

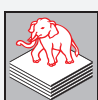- New Office of Permanent Secretary, Minister of Justice

Educational Facility

- Shrewsbury International School

Catalog

Elephant MultiWall System vs. Traditional Wall Performance Comparison

Property	Brick Wall	Lightweight Block Wall	MultiWall
System Thickness	100 mm	100 mm	94 mm
Weight	180 kg/m^2 (coating included)	90 kg/m^2 (coating included)	30 kg/m^2
Installation Capacity	4 – 5 m^2/person/day	15 m^2/person/day	20 – 25 m^2/person/day
STC	35 – 40 dB***	38 dB***	41 dB
Wall Surface	Depends on the worker's skills	Depends on the worker's skills	Smooth with the gypsum board level
Interior System (electric, pipe, etc.)			
Anchor Bolt & Hanging Weight	20 kg/point	20 kg/point / 30 kg/point	20 kg/point / 30 kg/point
Wall Extension	Must consider the existing beam or add a new one	Must consider the existing beam or add a new one	Beam is not required as it is lightweight

*** Up to the brick quality and coating

ELEPHANT Gypsum Board

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A product of Knauf Group

www.siamgypsum.com/en_ex