

WINS MD FIRE PROTECTION BOARD

FIRE PROTECTION
AND
SOUND REDUCTION

WINS

WINS[®]

WINS Consultants Ltd.

WINS MO FIRE PROTECTION BOARD

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WINS MO FIRE PROTECTION BOARD

All fire-proof and sound-proof products manufactured and marketed by WINS are premium items which have gone through a stringent quality control process during production. Superior in quality, they meet the requirement of ISO9001.

WINS MO Fire Protection Board complies with the requirement of Hong Kong's fire services ordinances and regulations. All individual models of our boards have passed major international fire-resistance performance tests and notary certification procedures, namely, BRANZ of New Zealand, PSB of Singapore and RED of Hong Kong. Test results show that WINS MO Fire Protection Board conforms with the 1, 2 and 4 hour fire-resistance period standards of BS476 Part 22: 1987, making them fully compliant with the requirement of the fire services ordinances in Hong Kong. UK and many areas where British Standards are recognized.

Boasting an in-house fire-proof test centre, we carry out random tests every month for quality assurance.

In addition to the outstanding fire-proofing performance, WINS MO Fire Protection Boards are also highly efficient acoustic panels. Our boards have passed the BS2750 Part 3: 1995 sound-proof test at Acoustics and Air Testing Laboratory Co. Ltd. (A+A). The test report was further assessed by the Hong Kong Polytechnic University, and verified as having Sound transmission class of 56 (STC56).

The WINS team of fire-proof and sound-proof experts are highly experienced. We are happy to provide technical advice on fire proofing and acoustic applications.





WINS MO FIRE PROTECTION BOARD

TECHNICAL AND APPLICATION MANUAL

- NON COMBUSTIBLE CONSTRUCTION BOARD
- MANUFACTURED TO ISO 9001
- TESTED TO BS & EN STANDARDS



Specifiers and end users may have complete confidence in proposing or using WINS MO Fire Protection Board in their constructions.

WINS MO Fire Protection Board is manufactured in China using state of the art production methods, to exacting tolerance under ISO9001 quality standards.

WINS MO Fire Protection Board offers a number of unique advantages over similar non combustible construction boards that are on the market.

WINS MO Fire Protection Board covers a wide range of applications. Due to its economic pricing WINS MO Fire Protection Board may be considered for a number of general purpose uses where non combustible boards with high impact strength would be desirable.

Benefits of using WINS MO Fire Protection Board

1. Extremely economic when compared to similarly performing boards.
2. Safe to work with WINS MO Fire Protection Board not containing asbestos or other harmful agents.
3. Extremely high impact strength and durability.
4. Does not require any surface preparation prior to decoration due to its smooth off white finish.
5. In fire resisting applications one 9mm board will achieve 4 hours fire integrity. Other boards normally require two or more layers to achieve the same result.
6. WINS MO Fire Protection Board is not adversely affected by moisture, making it an ideal material for external use or for wet areas.
7. WINS MO Fire Protection Board is users friendly. It can be worked with basic hand or power tools. WINS MO Fire Protection Panel may be adhesive bonded or fixed with drywall screws, nails or power stapling (depending on sub frame).
8. WINS MO Fire Protection Board can achieve a seamless joint finish using tape and joint filling compound. Alternatively the joint may be filled with an intumescent mastic to achieve up to 4 hours fire rating.
9. WINS MO Fire Protection Board partition or ceiling constructions achieve excellent acoustic attenuation.
10. WINS MO Fire Protection Board Partitions may be infilled with foamed lightweight concrete to produce fast track solid wall constructions.
11. WINS MO Fire Protection Board will not give off toxic fumes in a fire.
12. WINS MO Fire Protection Board will not rot; it will not support feedstock for fungal growth and is resistant to vermin and insect.
13. WINS MO Fire Protection Board is totally non combustible.
14. WINS MO Fire Protection Board incorporates an additional reinforcement to the rear face of the board to resist board breaking out when screwing or nailing.

Technical Data

Count the number of hours spent thumbing through the technical library to find different boards that match specific criteria. Be it fire protection, acoustic attenuation, can it be used externally? Does it have the mechanical strength that you are looking for? Can it achieve a seamless finish that is ready for decoration?

WINS MO Fire Protection Board while not being all things to all men, offers all of these advantages in one board.

WINS MO Fire Protection Board Data Tables

Dimensional Tolerance	
Thickness	-0.2 to +0.3 mm
Length	-2 to +3 mm
Width	-2 to +2 mm
Squareness	Less than 5mm

Fire Resistance		
Standard	Test	Test Result
BS 476 part 4	Non combustibility	Non combustible
BS 476 part 6	Fire Propagation	Fire Propagation Index 0
BS 476 part 7	Surface spread of flame	Class 1
BS 476 part 22	Fire resistance (Partitions)	Single 9mm board 4 Hours Integrity
BS 476 part 22	Fire resistance (Partitions)	Metal stud system 1-4 Hours Integrity & Insulation
BS 476 part 22	Fire resistance (Ceilings)	Ceiling 4 Hours Integrity
BS 476 part 22	Fire resistance (Ceilings)	Ceiling 1-4 Hours Integrity & Insulation
BS 476 part 22	Fire resistance (Enclosure)	Enclosure 1 Hour Integrity or 1 Hour Integrity and Insulation

Mechanical, Physical and Chemical Properties		
Description	Unit	Test Result
Average Dry Density	Kg/M ³	950
Flexural Strength	N/mm ²	10.1
Tensile Strength	Mpa	2.64
Impact Strength (Hard Body Impact Test)	Impact Energy (10Nm)	No Visible Damage
Water Absorption	%	28.8
Test for Asbestos Content	%	Not Detected

Acoustic Performance of 12mm WINS Board in Stud Partitions								
No of Board each side of stud	2	1	2	1	2	1	2	1
Width of Metal Stud (mm)	75	75	75	75	50	50	50	50
Mineral Wool Insert	60kg	60kg	nil	nil	60kg	60kg	nil	nil
Sound Transmission Class	56	48	51	43	51	43	46	38



Want to know more about WINS MO Fire Protection Board?

Typical Applications	Recommended Thickness			
	6mm	9mm	12mm	15mm
Fire and Acoustic Installations	*	*	*	*
Fire Door Linings	*	*		
Wall Partitions and Internal Linings	*	*	*	
Ceilings, Linings, Soffits and Tiles	*	*	*	
Substrate Board for Decorative Laminates	*	*		
Substrate Board for Ceramic Tiles	*	*	*	
Under Roof, Eaves Linings and Soffits	*	*	*	
External Fascia Boards	*	*	*	
External Wall Linings	*	*	*	*
Solid Wall (Permanent formwork)	*	*	*	
Prefabricated Building, Walls & Ceilings	*	*	*	*

Standard board sizes available

2440 x 1220mm (8' x 4')

Available as Standard Square or Bevel Edge
Other Board Sizes and Edge Profiles by Request

Characteristics of WINS Board

- Non combustible
- Dimensionally stable
- Does not contain Asbestos or other harmful componets
- Safe and easy to work with basic hand tools
- Can be screwed, nailed, stapled or bonded
- Can be used externally and internally
- Chemically inert, unaffected by moisture
- Rot proof, will not support mould growth
- Resistant to attack by vermin and termites
- Smooth off white surface with high impact resistance
- Economic to install

WINS MO FIRE PROTECTION BOARD

WINS MO Fire Protection Board Joint Treatment & Decoration

Joint Treatment (Internal)

WINS MO Fire Protection Board can achieve a seamless joint finish with the use of standard gypsum based dry wall joint fillers. It is recommended to use a glass fibre open weave tape with the filler, to eliminate air being trapped below the surface.

An intumescent acrylic mastic may also be used for joint filling. It is recommended for internal use only.

Joint Treatment (External)

Treat joints as for internal use, but be sure to use a joint filler that is suitable for exterior environments. Always follow the manufacturers recommendations.

Decoration

WINS MO Fire Protection Board may be painted with proprietary water based paints. Because of its smooth finish, **WINS MO Fire Protection Board** requires no special preparation or sealer coats. Observe good trade practice. Where solvent based or external coatings are required it is advisable to check with the paint manufacturer for compatibility with the slightly alkaline surface of **WINS MO Fire Protection Board**.

pH 9.5-10

If **WINS MO Fire Protection Board** is not going to be fixed back to a substrate mechanically, (screws or nails) then it is advisable to provide a balancing coat of paint to the reverse face of the board.

WINS MO Fire Protection Board may also be tiled or receive wall coverings or fabrics. **WINS MO Fire Protection Board** is also an ideal substrate for decorative laminates or veneers.

It is advisable to check with the manufacturers of tile cements and adhesives, for compatibility with the **WINS MO Fire Protection Board** surface.



WINS MO Fire Protection Board in Comparison with other Board Materials

Characteristics	WINS Board	Generic Boards Typical Fibre-cement	Comments
Non Combustible	Yes	Yes	Will not Burn or Contribute to Fire
No Toxic Smoke	Yes	Yes	Minimal Smoke Emission
Moisture Resistant	Yes	Yes	
Acoustic Reduction	Yes	Yes	
Resistant to Decay	Yes	Yes	
Corrosion Resistant	Yes	Yes	Will not Corrode
Insulating (Heat)	Yes	Yes	
Impact Resistance	Yes	Yes	Hard Body Impact
Termite Repellant	Yes	Yes	Due to their Alkaline Surface (No Feedstock)
Fungal Growth Repellant	Yes	Yes	Due to their Alkaline Surface (No Feedstock)
Resistant to Rodent attack	Yes	Yes	Due to their Alkaline Surface (no Feedstock)
Non Deforming	Yes	Reasonable	
Dimensionally Stable	Yes	Reasonable	
External Use	Yes	Yes	
Internal Use	Yes	Yes	
Safe to Use	Yes	Yes	
Easy to Use	Yes	Yes	
Does Not Contain Asbestos	No Asbestos	No Asbestos	Panel has Zero Asbestos Content
No Harmful Components	No Harmful Components	No Harmful Components	
Smooth Surface for Decoration	Yes	No	Smooth Surface Requiring no Sealer coats prior to Decoration
Taped Joint Finish	Yes	Yes	
Resists Board Breakout when Fixing	Yes	No	Reverse face Scrim Reinforcement resists board breakout when fixing
Strength under Water Saturation	No Significant Loss of Strength	Up to 50% Strength Loss	Flexural, Compressive and Tensile Strength
Thermal Conductivity	Excellent	Good	Resists Thermal Transmission through Conduction
FIRE RESISTANCE			
Based on Single Sheet at 9mm	4 Hours Plus	1 to 2 Hours	
ACOUSTIC PERFORMANCE			
Metal Stud Construction	Sound Transmission Class (56)	No Data Available	STC of 56 for use in hotels or auditoriums
AVERAGE DRY DENSITY	900-950Kg/m ³	1200-1600Kg/m ³	Panel is lighter for handling and transporting
WORKING CHARACTERISTICS			
Sawing	Yes	Yes	Power or Hand Tools
Drilling	Yes	Yes	Power or Hand Tools
Routing	Yes	Yes	Power or Hand Tools
Planing	Yes	Yes	Power or Hand Tools
Power Nailing	Yes	Yes	
Power Screwing	Yes	Yes	
Power Stapling	Yes	Yes	
Bonding (Glueing)	Yes	Requires Surface Preparation	Panel does not Require Sealing or Sanding
Laminating	Yes	Requires Surface Preparation	Panel does not Require Sealing or Sanding
Tiling	Yes	Yes	
Painting	Yes	Requires Surface Preparation	Panel does not Require Sealing or Sanding
Wallpapering	Yes	Requires Surface Preparation	Panel does not Require Sealing or Sanding
Screw Holding Ability	Excellent	Good	Pull Out Strength
Nail Holding Ability	Excellent	Good	Pull Out Strength
Bendable	Yes	Yes	
TYPICAL APPLICATIONS			
Fire Rated Partitions	Yes	Yes	Superior to Generic Fibre-Cement
Fire Rated Ceilings	Yes	Yes	Superior to Generic Fibre-Cement
Fire Barriers	Yes	Yes	Superior to Generic Fibre-Cement
Fire Door Linings	Yes	Yes	Superior to Generic Fibre-Cement
Acoustic Partitions	Yes	Yes	
Acoustic Ceilings	Yes	Yes	
Standard Wall Partitions	Yes	Yes	
Internal Linings	Yes	Yes	
Sidings	Yes	Yes	
Rain Screen Cladding	Yes	Yes	
Ceilings	Yes	Yes	
Ceiling Tiles	Yes	Yes	
Under Roof Linings	Yes	Yes	
Eaves	Yes	Yes	
Fascia Boards	Yes	Yes	
External Soffits	Yes	Yes	
Floor Substrates	Yes	Yes	
Substrate for Ceramic Tiles	Yes	Yes	
Substrate for Decorative Laminates	Yes	Yes	
Prefabricated Buildings (Walls)	Yes	Yes	
Prefabricated Buildings (Ceilings)	Yes	Yes	
Solid Wall (Permanent formwork)	Yes	Yes	
Curtain Walling	Yes	Yes	
Spandrel Barriers	Yes	Yes	



WINS MO Fire Protection Board General Application

Working with WINS-Board

Fixing to GMS studs or GMS ceiling framework

Screw Fixing: We recommend the use of standard galvanized, sheradised or stainless steel self drilling and self countersinking drywall screws. The length of screw should be 2.5 to 3 times the thickness of board being fixed.

Screw fixings should be started 12 to 15mm from the board edges. All board edges should coincide with support framework, and where applicable fillet strips. Screw fixings to be at nominal 200mm centre to centre.

Fixing to Timber Grounds or other Substrates

Nailing or Stapling: WINS MO Fire Protection Board may be nailed manually or by the use of power nailing or stapling guns. If power nailing is to be adopted, then the equipment should be tested on a piece of scrap material to achieve the required penetration.

We recommend the use of galvanized, sheradised or stainless steel nails for external use. Nail length should be 3 to 3.5 times the thickness of board and not less than 2.2 mm in thickness.

General

Joints and joint treatment: WINS MO Fire Protection Board may be butt jointed, allowance should be made for a 5mm movement joint at ten linear metre intervals.

Where a seamless finish is required, boards should be gapped at joints by 4mm. These joints can then be taped and filled as per standard dry wall procedure.

Where a seamless finish is required in external situation, or in an extremely wet area, advice should be sought regarding suitable joint fillers.

Intumescent acrylic mastic may also be used for jointing, giving 4 hours fire resistance.

Cutting: WINS MO Fire Protection Board can be rough cut in any direction due to its ostensibly monolithic structure. Cuts should be made on the face side of the board using a sharp craft knife or glasscutter. It is then an easy operation to snap the board over a straight edge. For more precise cutting it is recommended to use a tungsten carbide tipped circular saw.

Sawing: WINS MO Fire Protection Board can be sawn using a handsaw, jigsaw or portable circular saw. For the sawing of large quantities of board, it is recommended to use a circular saw bench.

Drilling: For the best results, it is recommended to use high speed twist drills. Do not use hammer action when drilling WINS MO Fire Protection Board.

Planing and Sanding: WINS MO Fire Protection Board can planed in any direction, as there is no grain to consider.

WINS MO Fire Protection Board may also be sanded using an orbital sander or conventional papers on a sanding block.





Some Notable Project References

Hong Kong

Hong Kong International Exhibition Centre

Hong Kong Disneyland

Hong Kong Mass Transit Railway

Hong Kong Architectural Services

Hong Kong Exhibition and Convention Centre

Hong Kong Ferry Terminal

The Fringe Club Hong Kong

The Landmark Hong Kong

International Finance Centre Hong Kong

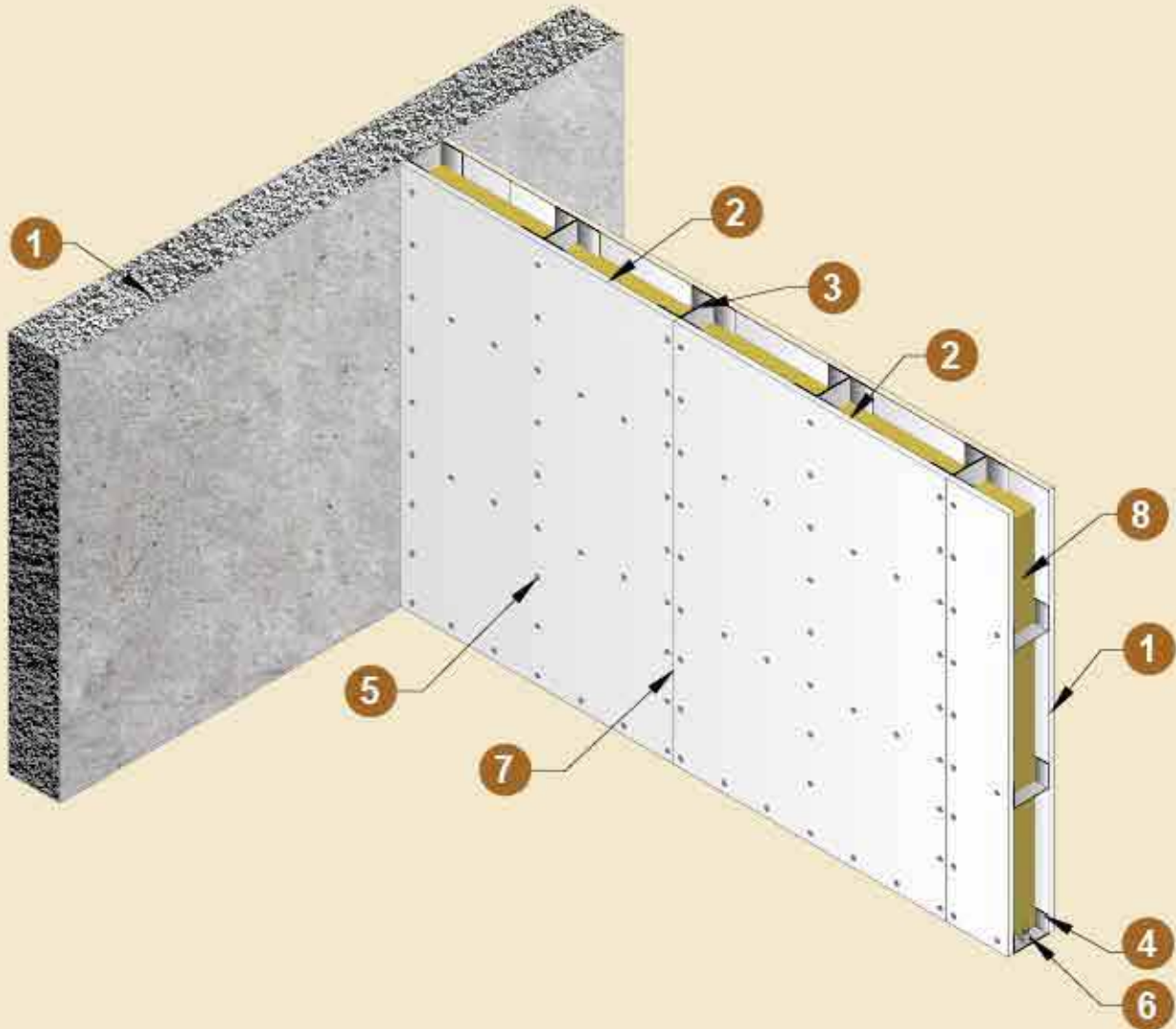
Park Island Residential Development



Fire Resistant non-loadbearing Partition Systems

WINS MO Fire Protection Board 9mm Thick Partition System

1 hour fire rating, integrity and insulation in accordance with
BS 476: Part 22: 1987

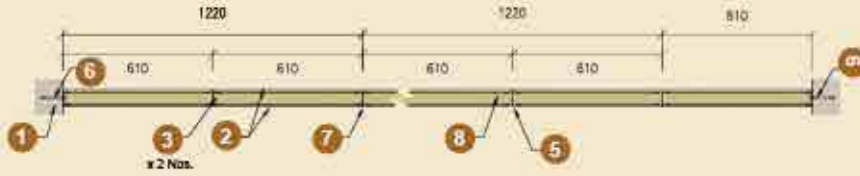


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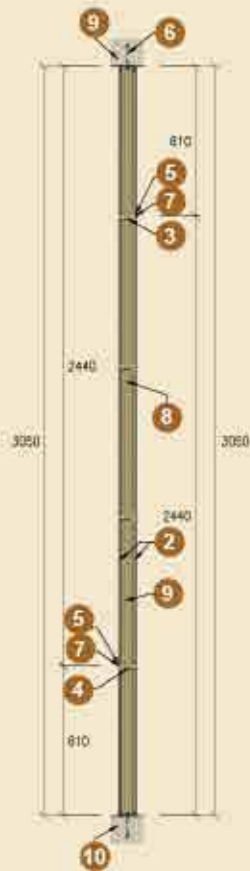
- 1 Wall
- 2 WINS MO9 Fire Protection Board, 9mm thick
- 3 Steel stud 32x50x32x0.5mm thick, @610mm c/c
- 4 Steel track / channel 24x50x24x0.5mm thick
- 5 M4 Self-tapping screw, @200mm c/c
- 6 Steel Anchor bolt, @600mm c/c
- 7 Board Joint, with fire retardant sealant
- 8 Rock wool, 80Kg/m³, 50mm thick

WINS MO Fire Protection Board 9mm Thick Partition System

1 hour fire rating, integrity & insulation in accordance with
BS 476: Part 22: 1987



Wall Connection Plan View



Ceiling - Floor Connection Side View

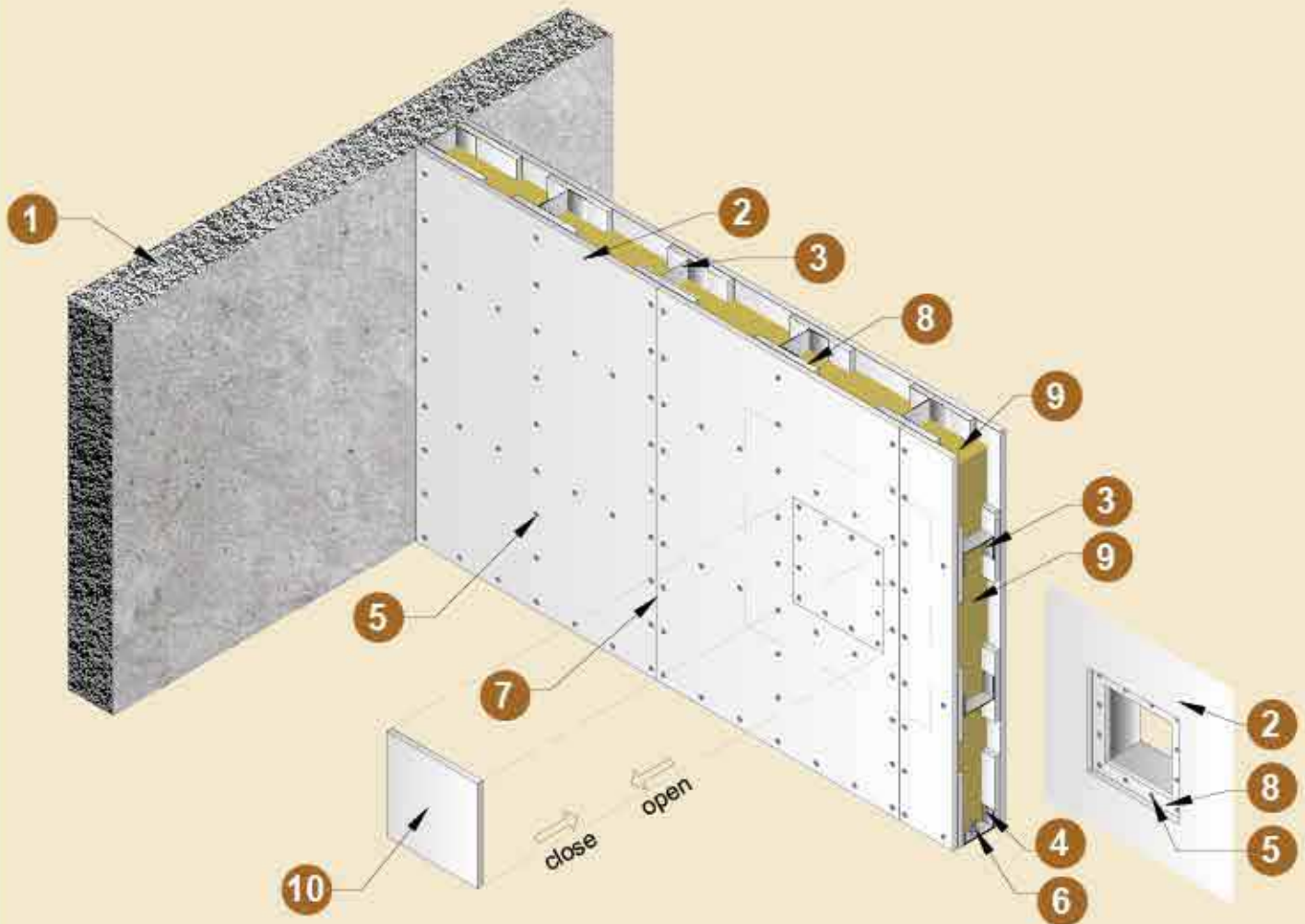
Legend

- 1 Wall
- 2 Wins MO9 Fire Protection Board, 9mm thick
- 3 Steel stud 32x50x32x0.5mm thick, @610mm c/c
- 4 Steel track / channel 24x50x24x0.5mm thick
- 5 M4 Self-tapping screw, @200mm c/c
- 6 Anchor bolt, @600mm c/c
- 7 Board Joint, with fire retardant sealant
- 8 Rock wool, 80Kg/m³, 50mm thick
- 9 Ceiling
- 10 Floor



WINS MO Fire Protection Board 9mm Thick Partition System With Access Panel

2 - 4 hours fire rating, integrity and insulation in accordance with
BS EN 1364-1:2015



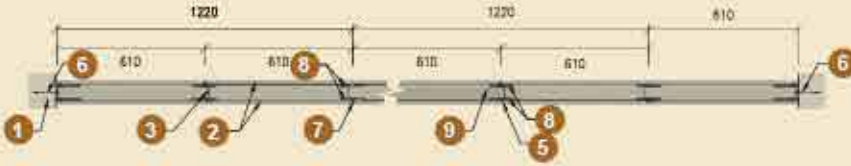
ACCESS PORT

Legend

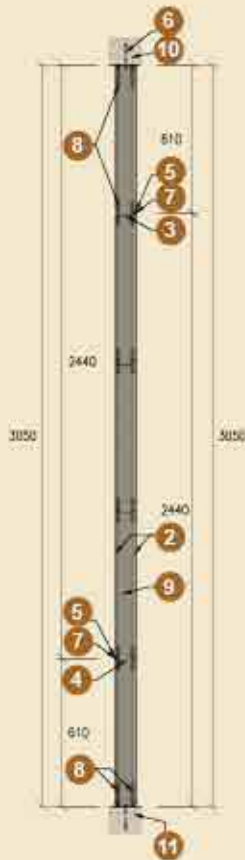
- 1 Wall
- 2 Wins MO Fire Protection Board, 9mm thick
- 3 Steel stud channel 32x50x32x0.5mm thick, @610mm c/c
- 4 Ceiling floor perimeter steel channel 24x50x24x0.5mm
- 5 M4 Self-tapping screw, @200mm c/c
- 6 M6 steel anchor bolt, @800mm c/c
- 7 Board Joint, sealed with fire retardant sealant
- 8 Wins MO Fire Protection Board Fillet, 9mm thick, 100mm width
- 9 Rock wool density 80kg/m³ by 50mm thick
- 10 Access Panel (optional, any panel surface)

WINS MO Fire Protection Board 9mm Thick Partition System With Access Panel

2 - 4 hours fire rating, Integrity & Insulation in accordance with
BS EN 1364-1:2015



Wall Connection Plan View



Ceiling - Floor Connection Side View

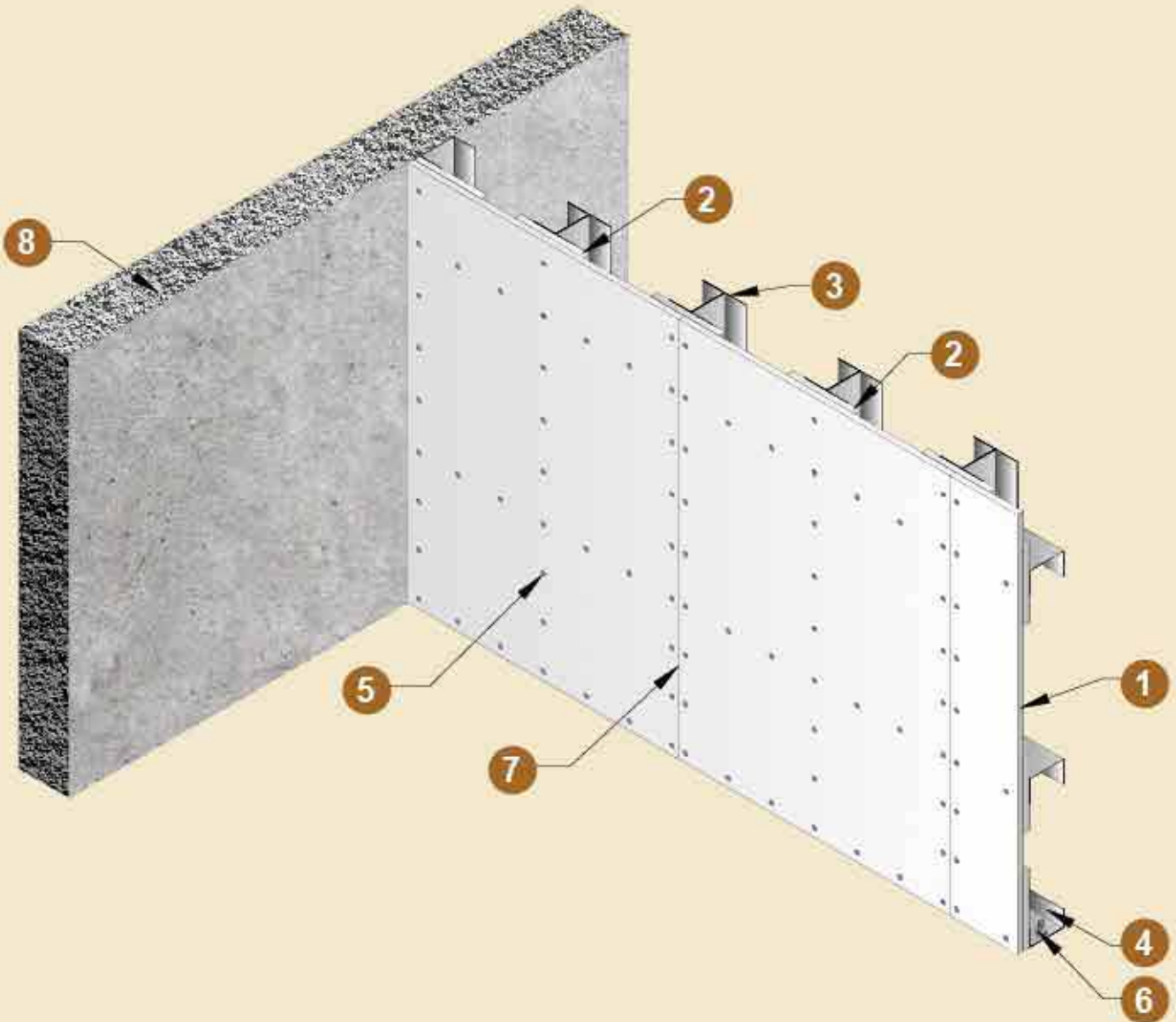
Legend

- 1 Wall
- 2 Wins MO9 Fire Protection Board, 9mm thick
- 3 Steel stud 32x50x32x0.5mm thick, @610mm c/c
- 4 Steel track / channel 24x50x24x0.5mm thick
- 5 M4 Self-tapping screw, @200mm c/c
- 6 M6 anchor bolt, @800mm c/c
- 7 Board Joint, with fire retardant sealant
- 8 Wins Fire Protection Board Fillet 9mm thick x 100mm width
- 9 Rock wool, 80Kg/m³, 50mm thick
- 10 Ceiling
- 11 Floor



WINS MO Fire Protection Board 9mm Thick Partition System

4 hours fire rating, integrity in accordance with
BS 476: Part 22: 1987



Legend

- 1 Wins MO Fire Protection Board, 9mm thick
- 2 Wins MO Fire Protection Board Fillet, 9mm thick, 100mm width
- 3 Vertical steel stud channel 32x50x32x0.5mm thick, @610mm c/c
- 4 Ceiling floor perimeter steel channel 24x50x24x0.5mm
- 5 M4 Self-tapping screw, @200mm c/c
- 6 M6 steel anchor bolt, @600mm c/c
- 7 Board Joint, sealed with fire retardant sealant
- 8 Wall

WINS MO Fire Protection Board 9mm Thick Partition System

4 hours fire rating, Integrity in accordance with
BS 476: Part 22: 1987



Wall Connection Plan View



Ceiling - Floor Connection Side View

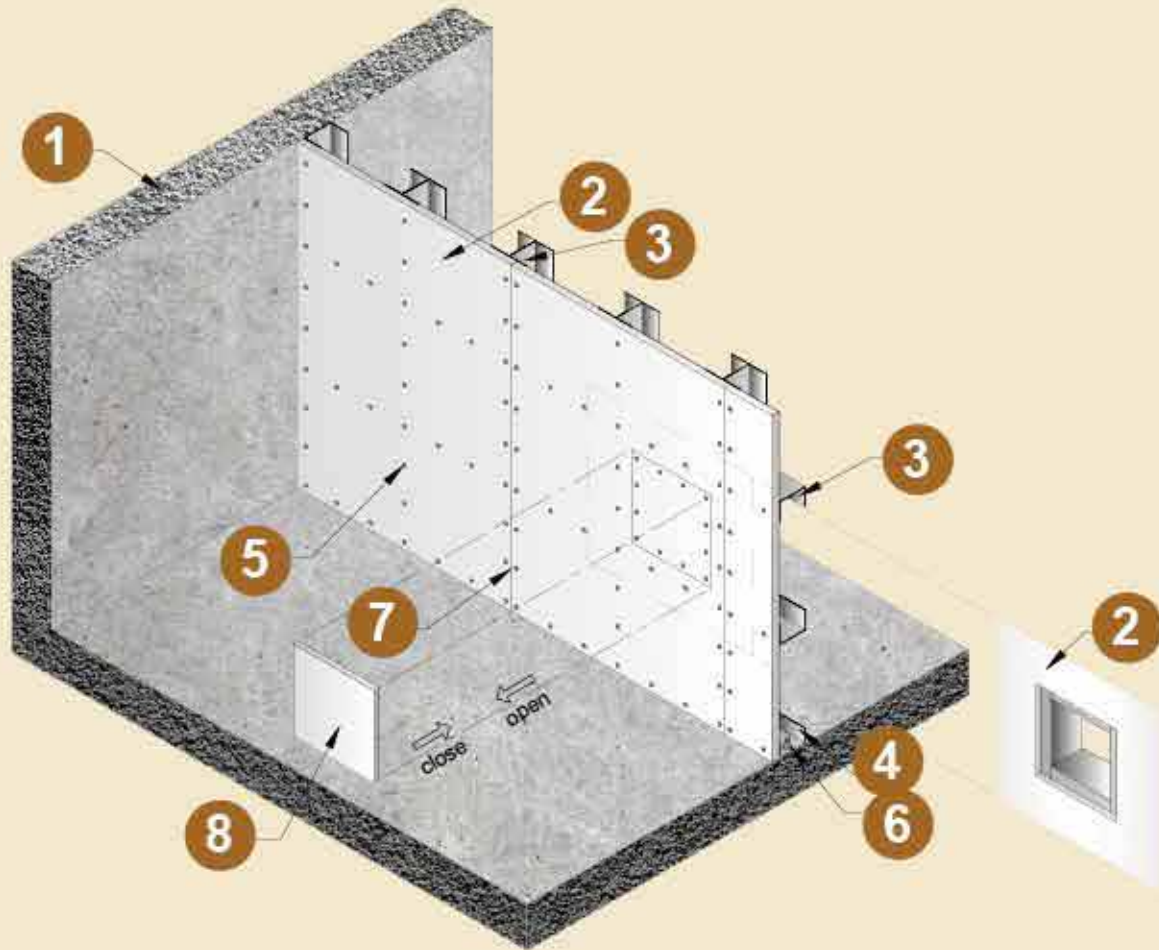
Legend

- ① Wins MO9 Fire Protection Board, 9mm thick
- ② Wins Fire Protection Board Fillet, 9mm thick x 100mm width
- ③ Vertical steel stud 32x50x32x0.5mm thick, @610mm c/c
- ④ Steel track / channel 24x50x24x0.5mm thick
- ⑤ M4 Self-tapping screw, @200mm c/c
- ⑥ M6 anchor bolt, @600mm c/c
- ⑦ Board Joint, with fire retardant sealant
- ⑧ Wall
- ⑨ Ceiling
- ⑩ Floor



WINS MO Fire Protection Board 12mm Thick Partition System

4 hours fire rating, integrity in accordance with
BS EN 1364-1 : 1999



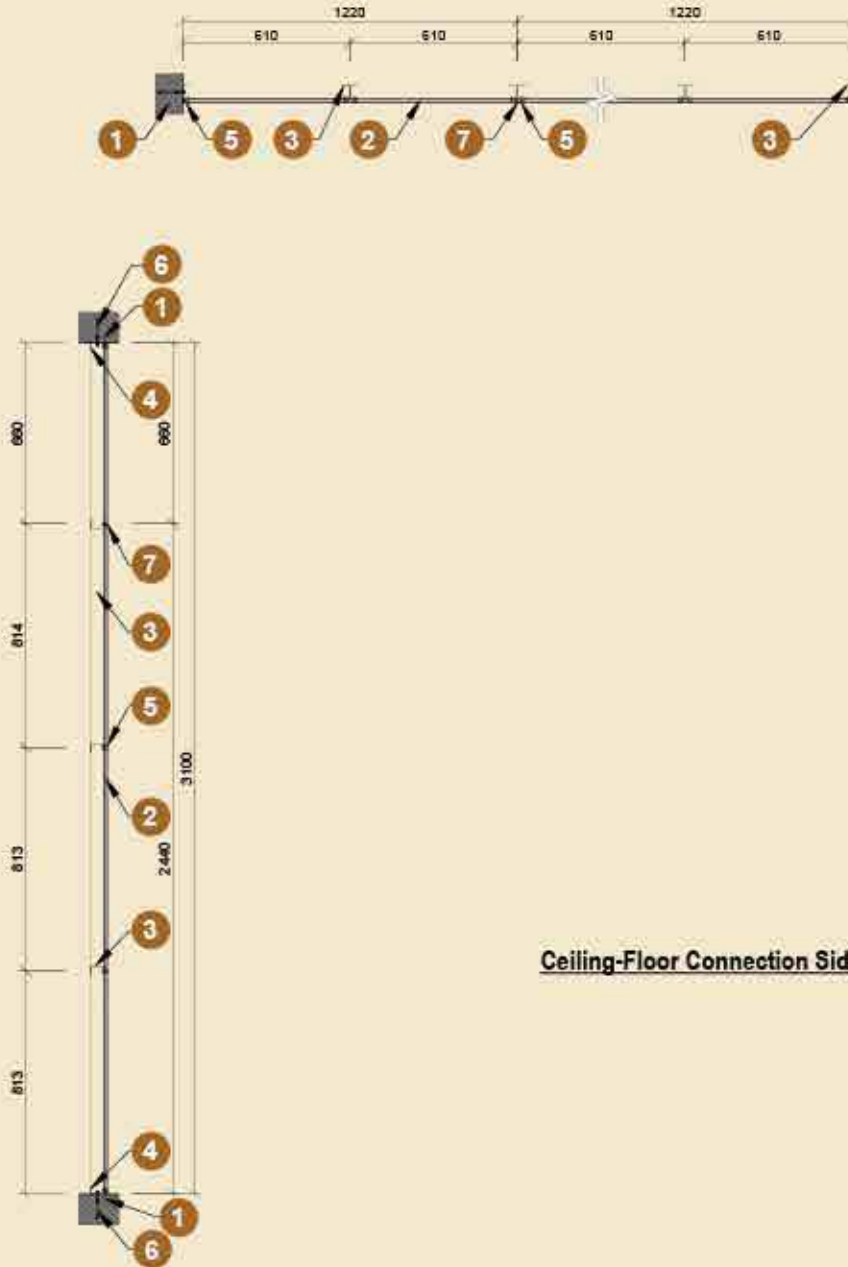
ACCESS PORT

Legend

- 1 Wall
- 2 Wins MO Fire Protection Board, 12mm thick
- 3 Steel stud channel 32x50x32x0.5mm thick
- 4 Ceiling floor perimeter steel channel 32x50x32x0.5mm
- 5 M4 Self-tapping screw, @200mm c/c
- 6 M6 steel anchor bolt, @600mm c/c
- 7 Board Joint, sealed with fire retardant sealant
- 8 Access Panel (optional, any board surface)

WINS MO Fire Protection Board 12mm Thick Partition System

4 hours fire rating, Integrity in accordance with
BS EN 1364-1 : 1999



Ceiling-Floor Connection Side View

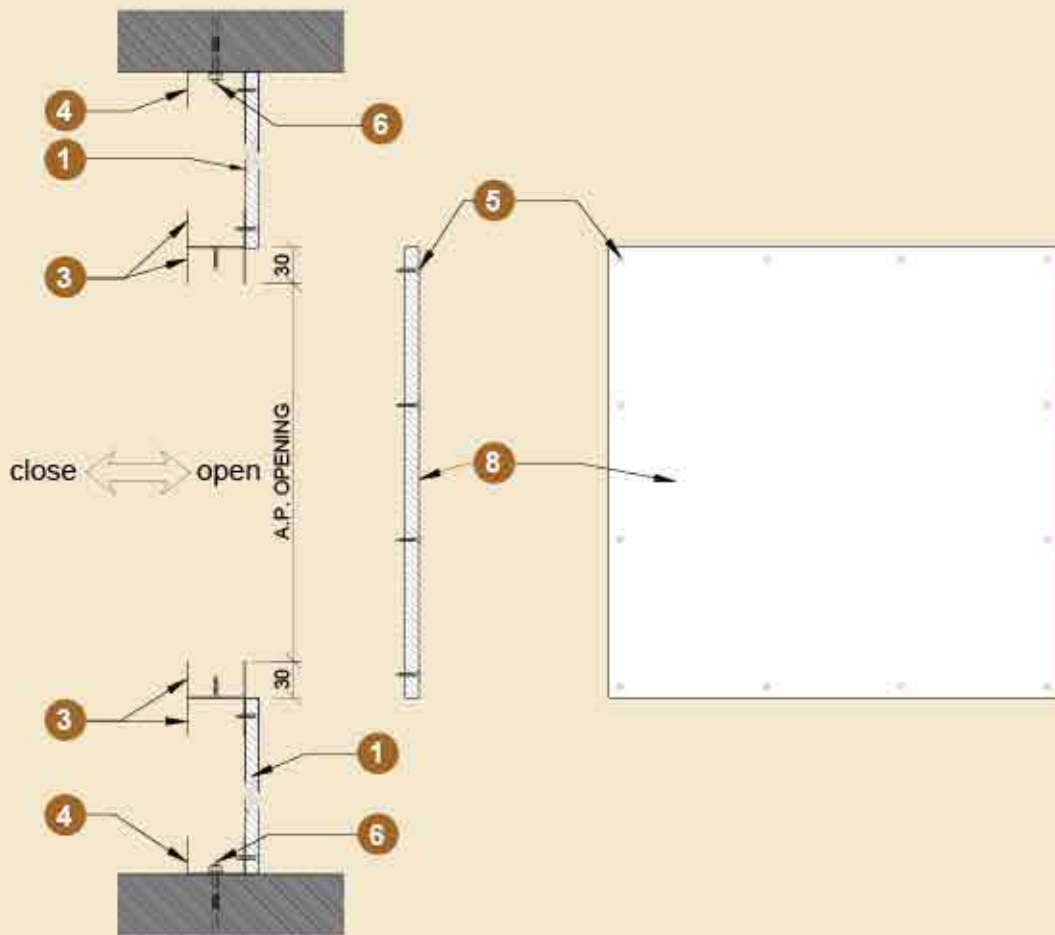
Legend

- ① Wall
- ② Wins MO Fire Protection Board, 12mm thick
- ③ Steel stud channel 32x50x32x0.5mm thick
- ④ Ceiling floor perimeter steel channel 32x50x32x0.5mm
- ⑤ M4 Self-tapping screw, @200mm c/c
- ⑥ M6 steel anchor bolt, @600mm c/c
- ⑦ Board Joint, sealed with fire retardant sealant



WINS MO Fire Protection Board 12mm Thick Partition System

4 hours fire rating, integrity in accordance with
BS EN 1364-1 : 1999

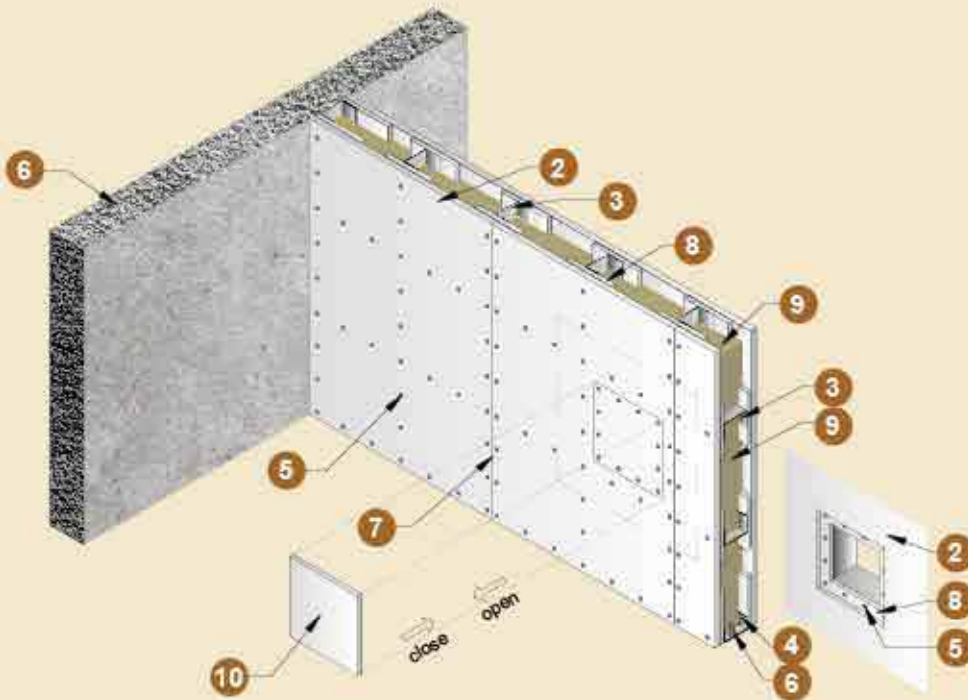


Legend

- 1 Wall
- 2 Wins MO Fire Protection Board, 12mm thick
- 3 Steel stud channel 32x50x32x0.5mm thick
- 4 Ceiling floor perimeter steel channel 32x50x32x0.5mm
- 5 M4 Self-tapping screw, @200mm c/c
- 6 M6 steel anchor bolt, @600mm c/c
- 7 Board Joint, sealed with fire retardant sealant
- 8 Access Panel (optional, any board surface)

**WINS MO Fire Protection Board
12mm Thick Partition System With Access Panel**

2 - 4 hours fire rating, integrity and insulation in accordance with
BS EN 1364-1:2015



ACCESS PORT

Legend

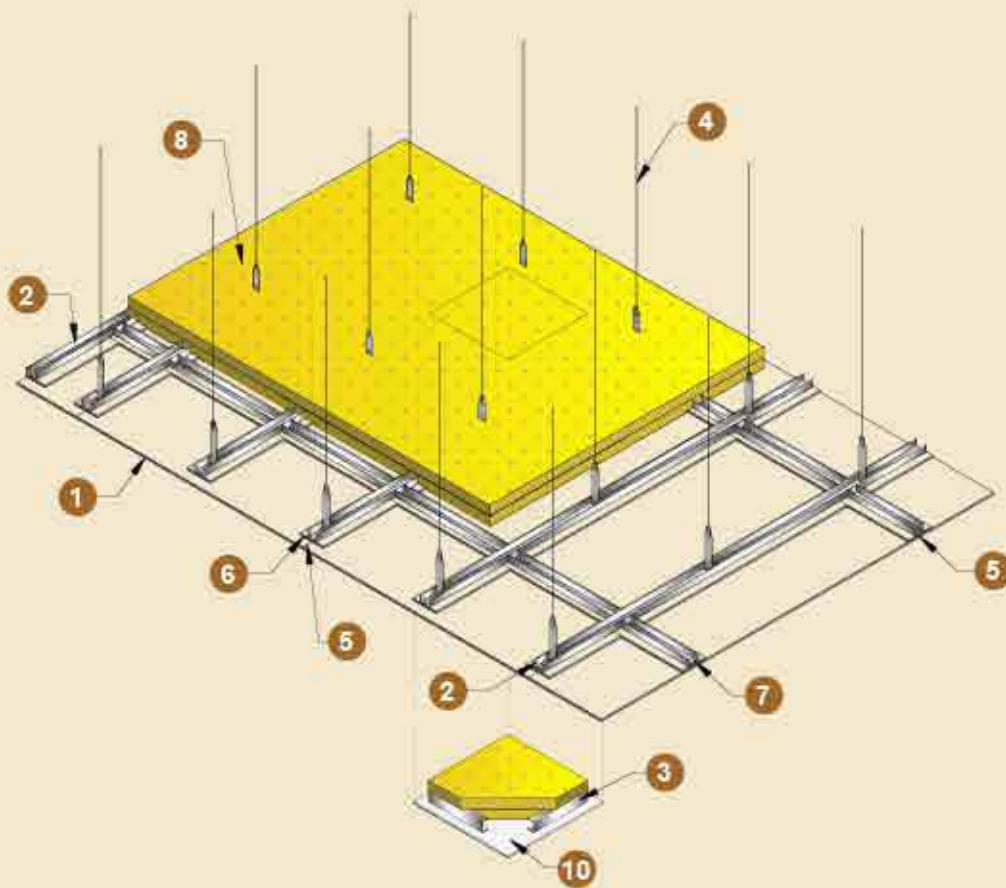
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- ⑤ M4 Self-tapping screw, @200mm c/c
- ⑥ M6 steel anchor bolt, @800mm c/c
- ⑦ Board Joint, sealed with fire retardant sealant
- ⑧ Wins MO Fire Protection Board Fillet, 9mm thick, 100mm width
- ⑨ Rock wool density 80kg/m³ by 50mm thick
- ⑩ Access Panel (optional, any panel surface)



Fire Resistant Ceiling Systems

WINS MO Fire Protection Board 9mm Thick Suspended Ceiling System With Access Panel

1 hour Fire Rating, Integrity and Insulation in accordance with
BS EN 1364-2:1999



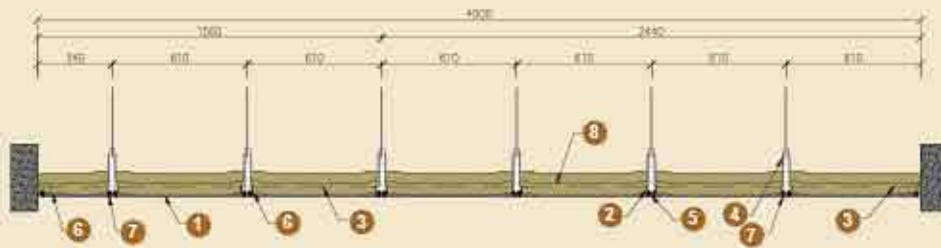
Isometric View - 60 Min. Ceiling System

Legend

- ① Wins MO9 Fire Protection Board, 9mm thick
- ② Steel c-channel at 610mm spacing, 32x50x32x0.5mm thick
- ③ Furring channel / perimeter c-channel, 25x50x25x0.5mm thick
- ④ Steel wire hanger @1000mm c/c
- ⑤ Board joints, all gaps sealed with intumescent sealant
- ⑥ Wins MO9 Fire Protection Board fillet, 100mm width, 9mm thick
- ⑦ Self tapping screws at nominal 200mm centres
- ⑧ Rockwool-2 layers of 50mm thick (80kg/m³)
- ⑨ ceiling opening, stiffener galvanised steel c-channel, 75x50x75x0.5mm thick
- ⑩ Access panel (optional, any board surface)

**WINS MO Fire Protection Board
9mm Thick Suspended Ceiling System With Access Panel**

**1 hour Fire Rating, Integrity and Insulation in accordance with
BS EN 1364-2:1998**



Horizontal Section - 60 Min. Ceiling System

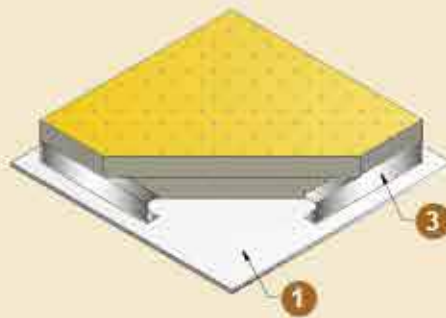
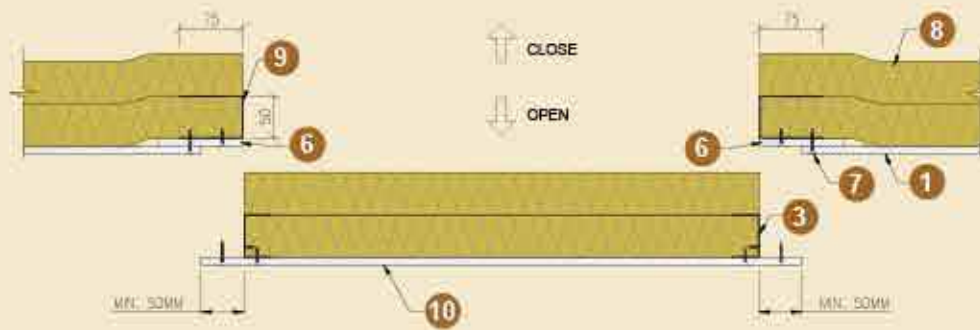
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- ⑥ Wins MO9 Fire Protection Board fillet, 100mm width, 9mm thick
- ⑦ Self tapping screws at nominal 200mm centres
- ⑧ Rockwool-2 layers of 50mm thick (80kg/m³)



WINS MO Fire Protection Board 9mm Thick Suspended Ceiling System With Access Panel

1 hour Fire Rating, Integrity and Insulation in accordance with
BS EN 1364-2:1999



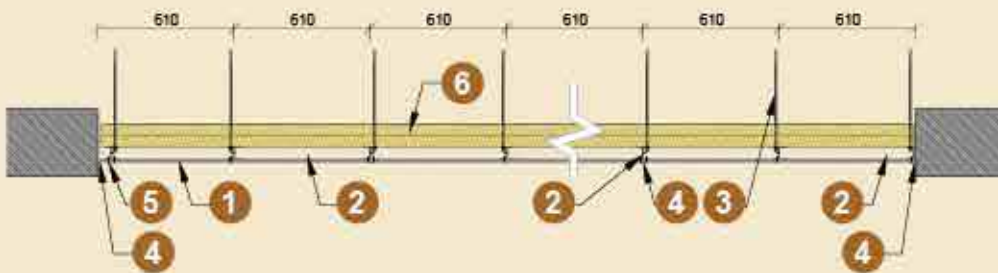
WINS Access Panel

Legend

- ① Wins MO9 Fire Protection Board, 9mm thick
- ② Steel c-channel at 610mm spacing, 32x50x32x0.5mm thick
- ③ Furring channel / perimeter c-channel, 25x50x25x0.5mm thick
- ④ Steel wire hanger @1000mm c/c
- ⑤ Board joints, all gaps sealed with intumescent sealant
- ⑥ Wins MO9 Fire Protection Board fillet, 100mm width, 9mm thick
- ⑦ Self tapping screws at nominal 200mm centres
- ⑧ Rockwool-2 layers of 50mm thick (80kg/m³)
- ⑨ Ceiling opening, stiffener galvanised steel c-channel, 75x50x75x0.5mm thick
- ⑩ Access panel (optional, any board surface)

WINS MO Fire Protection Board 9mm Thick Suspended Ceiling System

4 hours fire rating, integrity and insulation in accordance with
BS EN 1364-2 : 2018



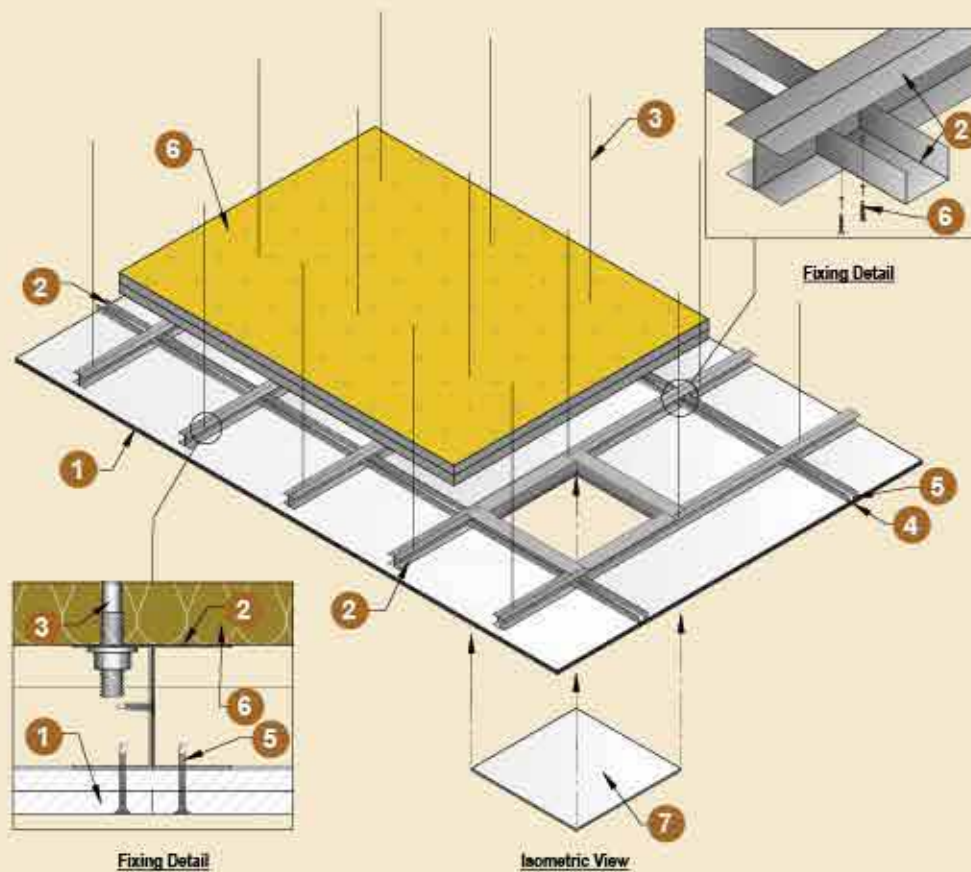
Horizontal Section

Legend

- ① Wins MO Fire Protection Board, 9mm thick x 2 layers
- ② Steel C-Channel at 610mm spacing, 32x50x32x0.6mm thick
- ③ Hanger rod ϕ 8mm @610mm x 1000mm c/c
- ④ Board Joint, all gaps sealed with fire retardant sealant
- ⑤ Self-tapping screws at nominal 200mm centres
- ⑥ Rockwool -2 layers of 50mm thk (100kg/m²)
- ⑦ Access panel (optional, any board surface)

WINS MO Fire Protection Board 9mm Thick Suspended Ceiling System

4 hours fire rating, integrity and insulation in accordance with
BS EN 1364-2 : 2018

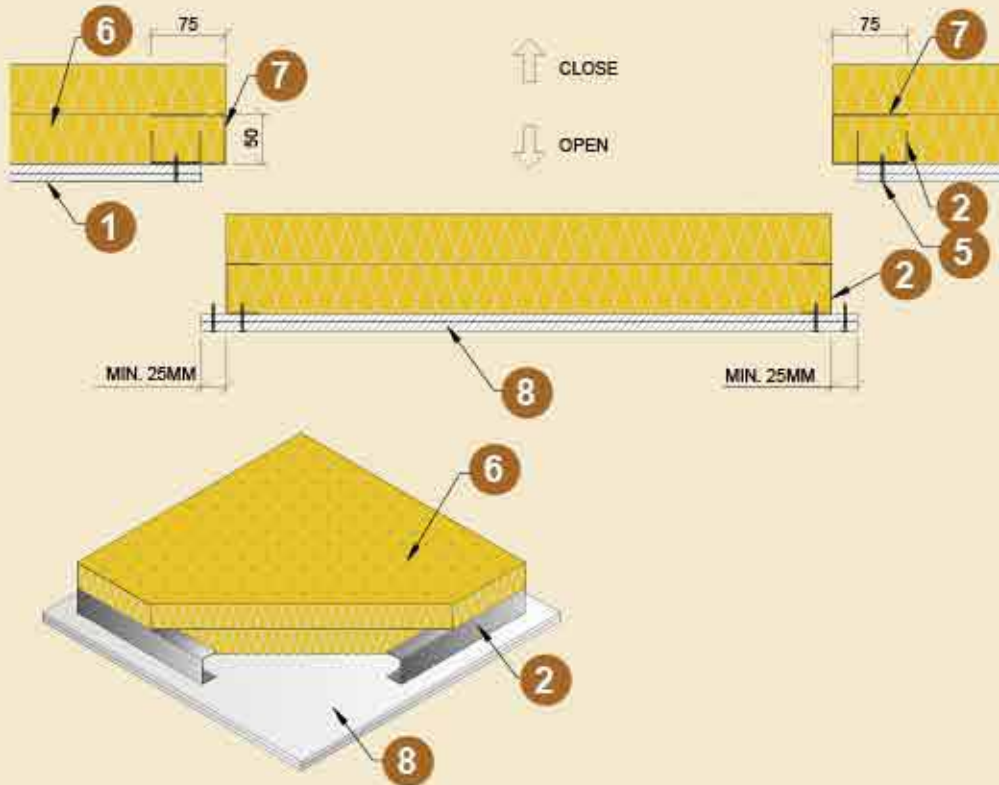


Legend

- 1 Wins MO Fire Protection Board, 9mm thick x 2 layers
- 2 Steel c-channel at 610mm spacing, 32x50x32x0.6mm thick
- 3 Hanger rod $\phi 8\text{mm}$ @610mm x 1000mm c/c
- 4 Board Joint, all gaps sealed with fire retardant sealant
- 5 Self-tapping screws at nominal 200mm centres
- 6 Rockwool -2 layers of 50mm thk (100kg/m²)
- 7 Access panel (optional, any board surface)

WINS MO Fire Protection Board 9mm Thick Suspended Ceiling System

4 hours fire rating, integrity and insulation in accordance with
BS EN 1364-2 : 2018



Wins Access Panel

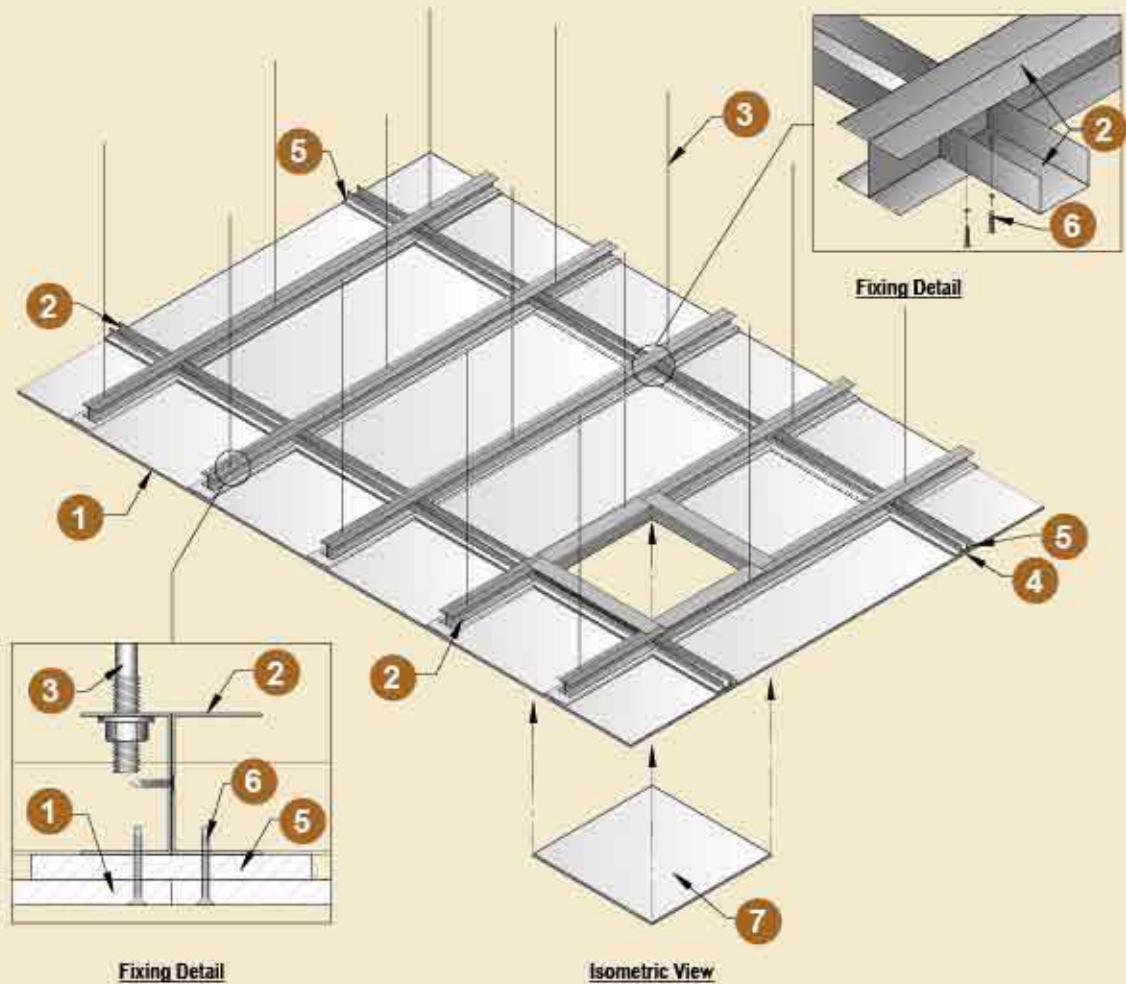
Legend

- ① Wins MO Fire Protection Board, 9mm thick x 2 layers
- ② Steel C-Channel at 610mm spacing, 32x50x32x0.6mm thick
- ③ Hanger Rod $\phi 8\text{mm}$ @610mm x 1000mm c/c
- ④ Board Joint, all gaps sealed with fire retardant sealant
- ⑤ Self-tapping screws at nominal 200mm centres
- ⑥ Rockwool-2 layers of 50mm thick (100kg/m^3)
- ⑦ Ceiling opening, stiffener galvanised steel c-channel, 75x50x75x0.6mm thick
- ⑧ Access panel (optional, any board surface)



WINS MO Fire Protection Board 9mm Thick Suspended Ceiling System

4 hours fire rating, integrity in accordance with
BS EN 1364-2 : 2018

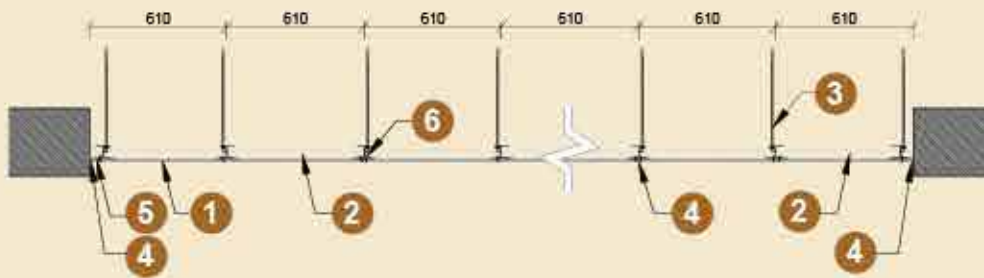


Legend

- 1 Wins MO Fire Protection Board, 9mm thick
- 2 Steel C-channel at 610mm spacing, 32x50x32x0.6mm thick
- 3 Hanger Rod $\varnothing 8\text{mm}$ @ 610mm x 1000mm c/c
- 4 Board Joint, all gaps sealed with fire retardant sealant
- 5 Wins MO Fire Protection Board fillet, 100mm width, 9mm thick
- 6 Self-tapping screws at nominal 200mm centres
- 7 Access panel (optional, any board surface)

WINS MO Fire Protection Board 9mm Thick Suspended Ceiling System

4 hours fire rating, integrity in accordance with
BS EN 1364-2: 2018



Horizontal Section

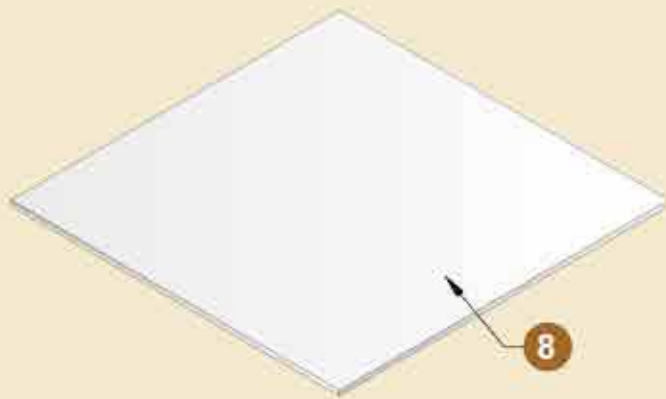
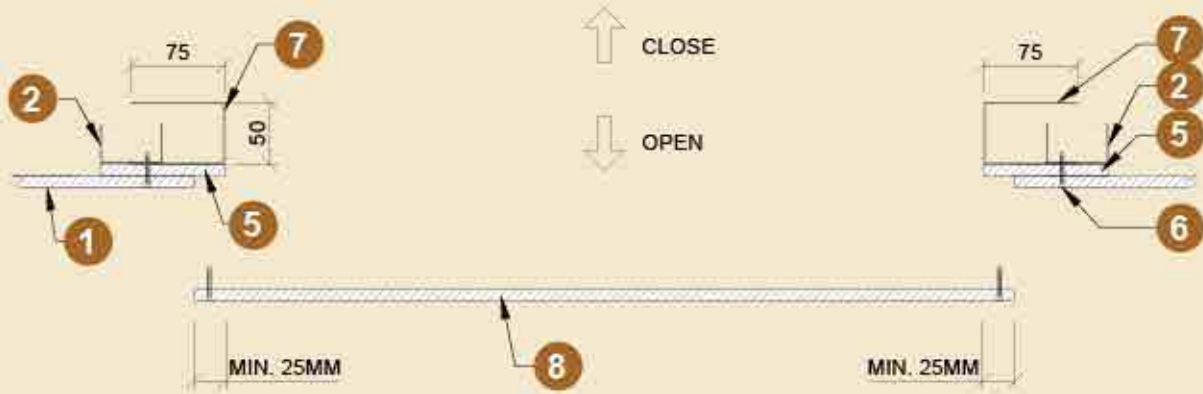
Legend

- ① WINS MO Fire Protection Board, 9mm thick
- ② Steel C-Channel at 610mm spacing, 32x50x32x0.6mm thick
- ③ Hanger Rod ϕ 8mm @610mm x 1000mm c/c
- ④ Board Joint, all gaps sealed with fire retardant sealant
- ⑤ WINS MO Fire Protection Board fillet, 100mm width, 9mm thick
- ⑥ Self-tapping screws at nominal 200mm centres



WINS MO Fire Protection Board 9mm Thick Suspended Ceiling System

4 hours fire rating, integrity in accordance with
BS EN 1364-2 : 2018



Wins Access Panel

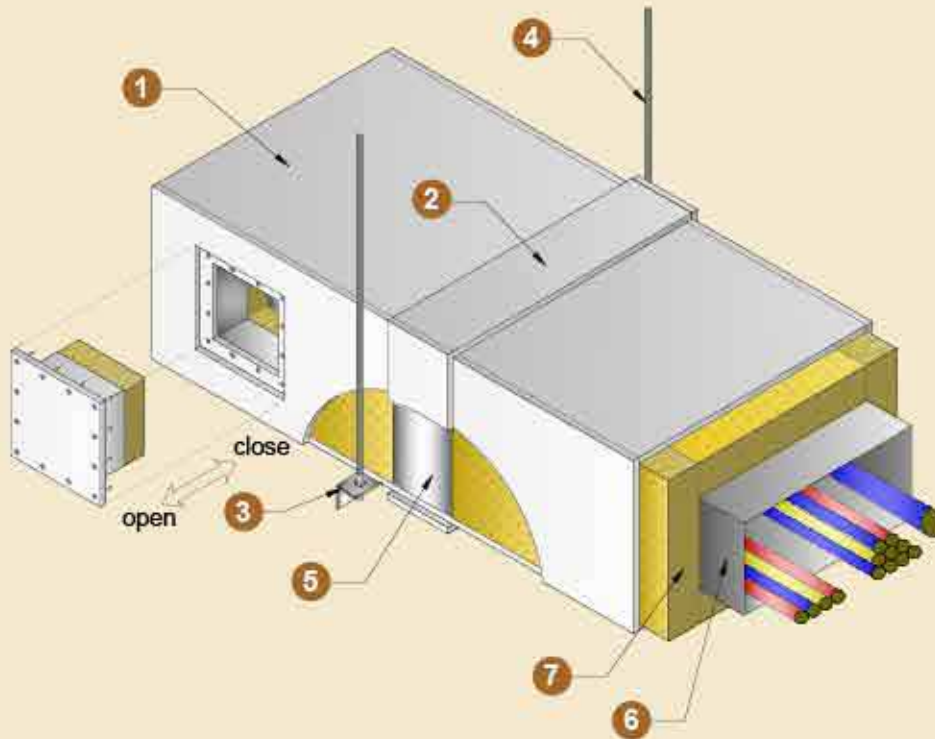
Legend

- 1 Wins MO Fire Protection Board, 9mm thick
- 2 Steel C-Channel at 610mm spacing, 32x50x32x0.6mm thick
- 3 Hanger Rod $\phi 8\text{mm}$ @610mm x 1000mm c/c
- 4 Board Joint, all gaps sealed with fire retardant sealant
- 5 Wins MO Fire Protection Board fillet, 100mm width, 9mm thick
- 6 Self-tapping screws at nominal 200mm centres
- 7 Ceiling opening, stiffener galvanized steel c-channel, 75x50x75x0.6mm thick
- 8 Access panel (optional, any board surface)

Fire Resistant Enclosure Systems

WINS MO Fire Protection Board 9mm Thick Enclosure System With Access Panel

1 hour fire Rating, Integrity and Insulation in accordance with
BS EN 1364-2:1999, BS EN 1364-1:2015



Access Panel (Optional)

Fig 1 FOUR-SIDED WINS MO9 FIRE PROTECTION BOARD HORIZONTAL ENCLOSURE SYSTEM

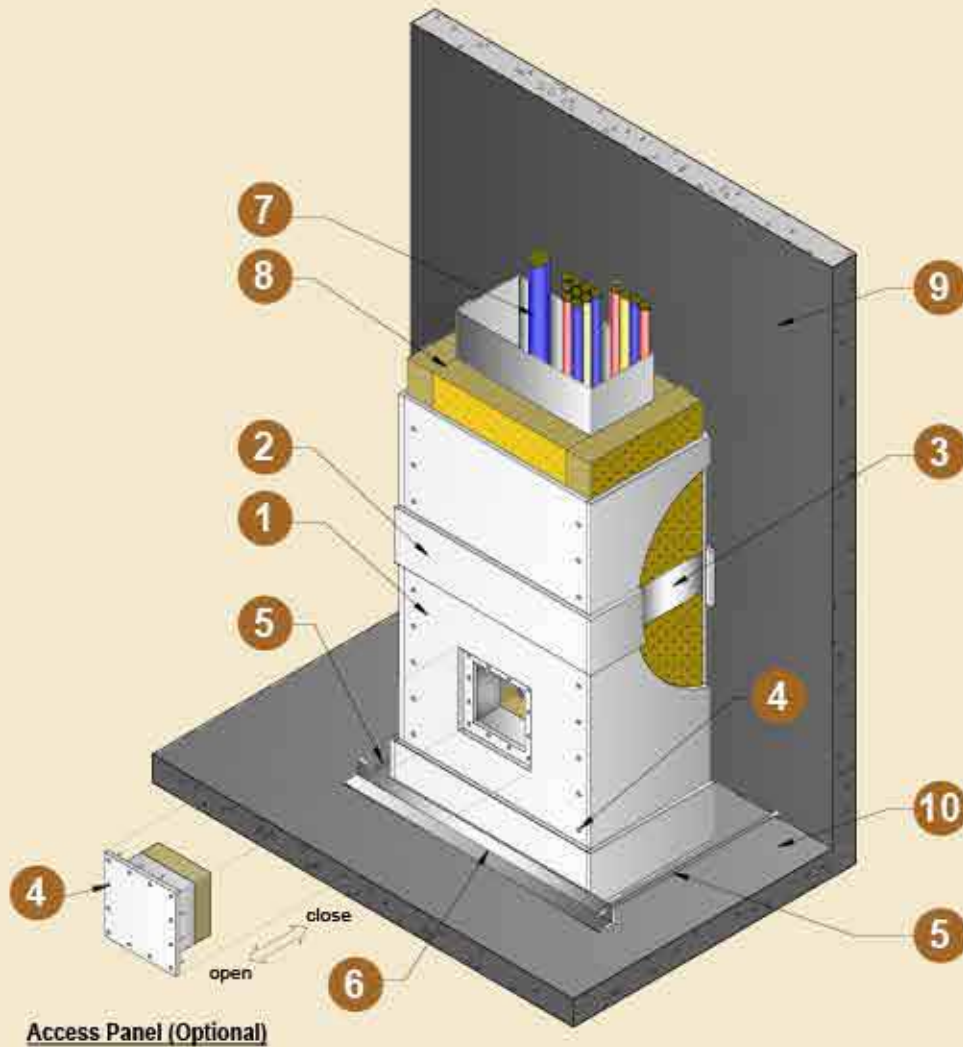
Legend

- ① WINS MO9 Fire Protection Board, 9mm thick
- ② WINS MO9 Fire Protection Board fillet, 100mm width, 9mm thick (inside or outside)
- ③ Enclosure support, steel c-channel or L-angles
- ④ Steel hanger rod at nominal 1000mm centers sizes according to Limiting stress, i.e. $< 10 \text{ N/MM}^2$
- ⑤ Steel channel collar, 32x50x0.5mm thick. Sizes may be larger to suit board and mineral wood thickness
- ⑥ Steel cable tray
- ⑦ Mineral wool, 2 layers of 50mm thick with nominal density of 80 kg/m^3



WINS MO Fire Protection Board 9mm Thick Enclosure System With Access Panel

1 hour Fire Rating, Integrity and Insulation in accordance with
BS EN 1364-2:1999, BS EN 1364-1:2015



Access Panel (Optional)

Fig 2 FOUR-SIDED WINS MO9 FIRE PROTECTION BOARD VERTICAL ENCLOSURE SYSTEM

Legend

- 1 Wins MO9 Fire Protection Board, 9mm thick
- 2 Wins MO9 Fire Protection fillet, 100mm width, 9mm thick (inside or outside)
- 3 Steel channel collar, minimum 32x50x0.5mm thick at butt joints of nominal 1220mm centers
- 4 M4 self-tapping screw at nominal 200mm centers
- 5 Threaded rod hanger stress not exceed 10 N/MM², fixed to the wall
- 6 Steel angle, minimum 50x50x0.9mm thick fasten the service duct to the wall at nominal 1220mm centers
- 7 General E&M services. i.e. Cable trunking and steel pipes, etc.
- 8 Mineral wool, 2 layers of 50mm thick with nominal density of 80 kg/m³
- 9 Construction wall
- 10 Concrete floor

WINS MO Fire Protection Board 9mm Thick Enclosure System With Access Panel

1 hour Fire Rating, Integrity and Insulation in accordance with
BS EN 1364-2:1999, BS EN 1364-1:2015

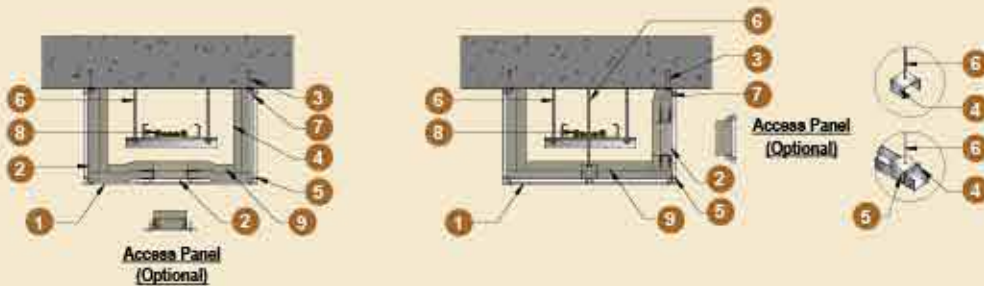


Fig 3 THREE-SIDED CONSTRUCTION FROM FLOOR SOFFIT

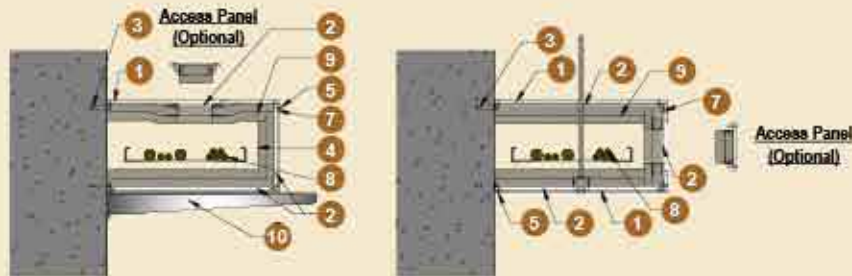


Fig 3 THREE-SIDED CONSTRUCTION FROM SIDE WALL

Legend

- ① Wins MO9 Fire Protection Board, 9mm thick
- ② Wins MO9 Fire Protection Board Fillet, 100mm width, 9mm thick (inside or outside)
- ③ M6 all steel expanding fixing at 500mm nominal centers
- ④ Steel channel collar, minimum 32x50x0.5mm thick at butt joints of nominal 1220mm centers
- ⑤ M4 self-tapping screw at nominal 200mm centers
- ⑥ Threaded rod hanger stress not exceed 10 N/MM², fixed to the wall
- ⑦ Steel angle minimum 25x25x0.6mm thick
- ⑧ General E&M services. e.g. Cable trunking and steel pipes, etc.
- ⑨ Mineral wool, 2 layers of 50mm thick with nominal density of 80 kg/m³
- ⑩ Cantilever arm at maximum 1250mm center



WINS MO Fire Protection Board 9mm Thick Enclosure System With Access Panel

1 hour Fire Rating, Integrity and Insulation in accordance with
BS EN 1364-2:1999, BS EN 1364-1:2015

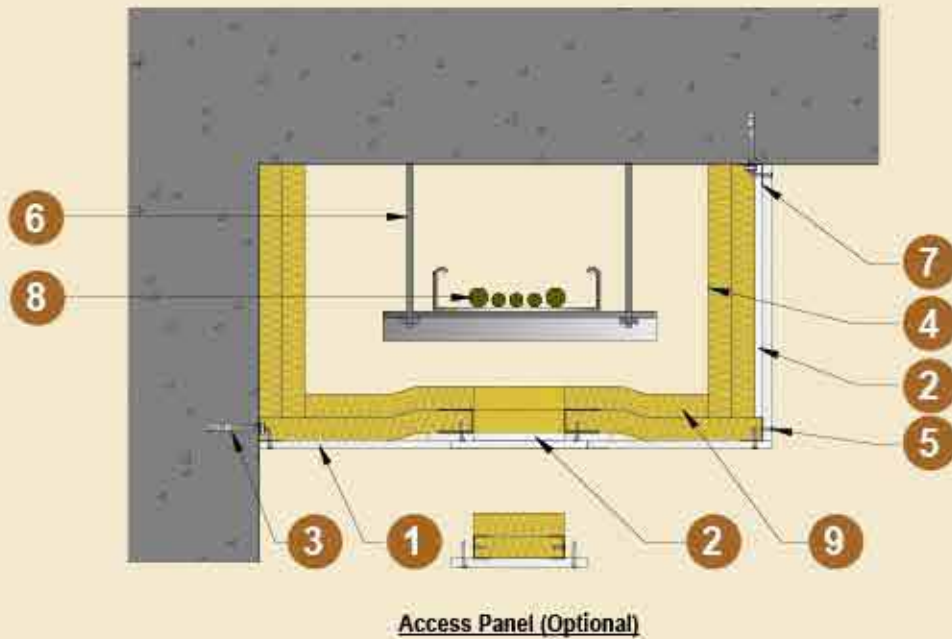


Fig 4 TWO-SIDED WINS MO9 FIRE PROTECTION BOARD ENCLOSURE SYSTEM

Legend

- ① Wins MO9 Fire Protection Board, 9mm thick
- ② Wins MO9 Fire Protection Board Fillet, 100mm width, 9mm thick (inside or outside)
- ③ M6 all steel expanding fixing at 500mm nominal centers
- ④ Steel channel collar, minimum 32x50x0.5mm thick at butt joints of nominal 1220mm centers
- ⑤ M4 self-tapping screw at nominal 200mm centers
- ⑥ Threaded rod hanger stress not exceed 10 N/MM², fixed to the wall
- ⑦ Steel angle minimum 25x25x0.6mm thick
- ⑧ General E&M services. e.g. Cable trunking and steel pipes, etc.
- ⑨ Mineral wool, 2 layers of 50mm thick with nominal density of 80 kg/m³

WINS MO Fire Protection Board 9mm Thick Enclosure System With Access Panel

1 hour Fire Rating, Integrity and Insulation in accordance with
BS EN 1364-2:1999, BS EN 1364-1:2015

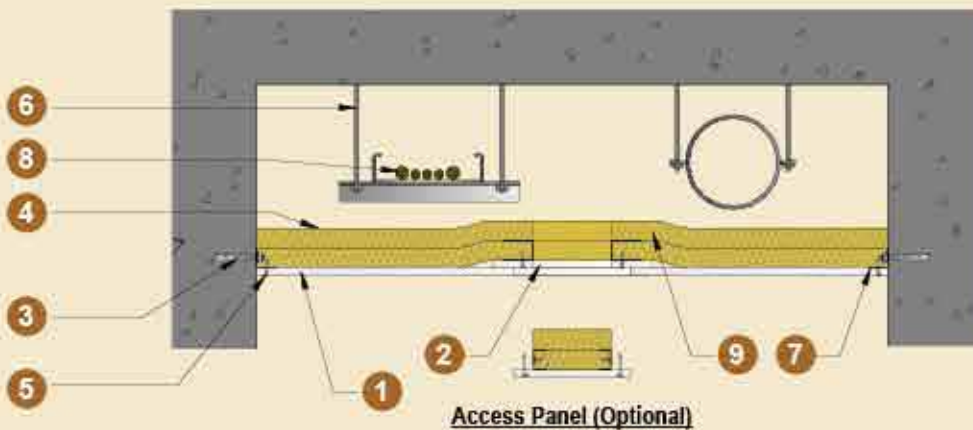


Fig 5 ONE-SIDED WINS MO9 FIRE PROTECTION BOARD ENCLOSURE SYSTEM

Legend

- ① Wins MO9 Fire Protection Board, 9mm thick
- ② Wins MO9 Fire Protection Board Fillet, 100mm width, 9mm thick (inside or outside)
- ③ M6 all steel expanding fixing at 500mm nominal centers
- ④ Steel channel collar, minimum 32x50x0.5mm thick at butt joints of nominal 1220mm centers
- ⑤ M4 self-tapping screw at nominal 200mm centers
- ⑥ Threaded rod hanger stress not exceed 10 N/MM², fixed to the wall
- ⑦ Steel angle minimum 25x25x0.6mm thick
- ⑧ General E&M services. e.g. Cable trunking and steel pipes, etc.
- ⑨ Mineral wool, 2 layers of 50mm thick with nominal density of 80 kg/m³

WINS MO Fire Protection Board 9mm Thick Enclosure System With Access Panel

1 hour Fire Rating, Integrity and Insulation in accordance with
BS EN 1364-2:1999, BS EN 1364-1:2015

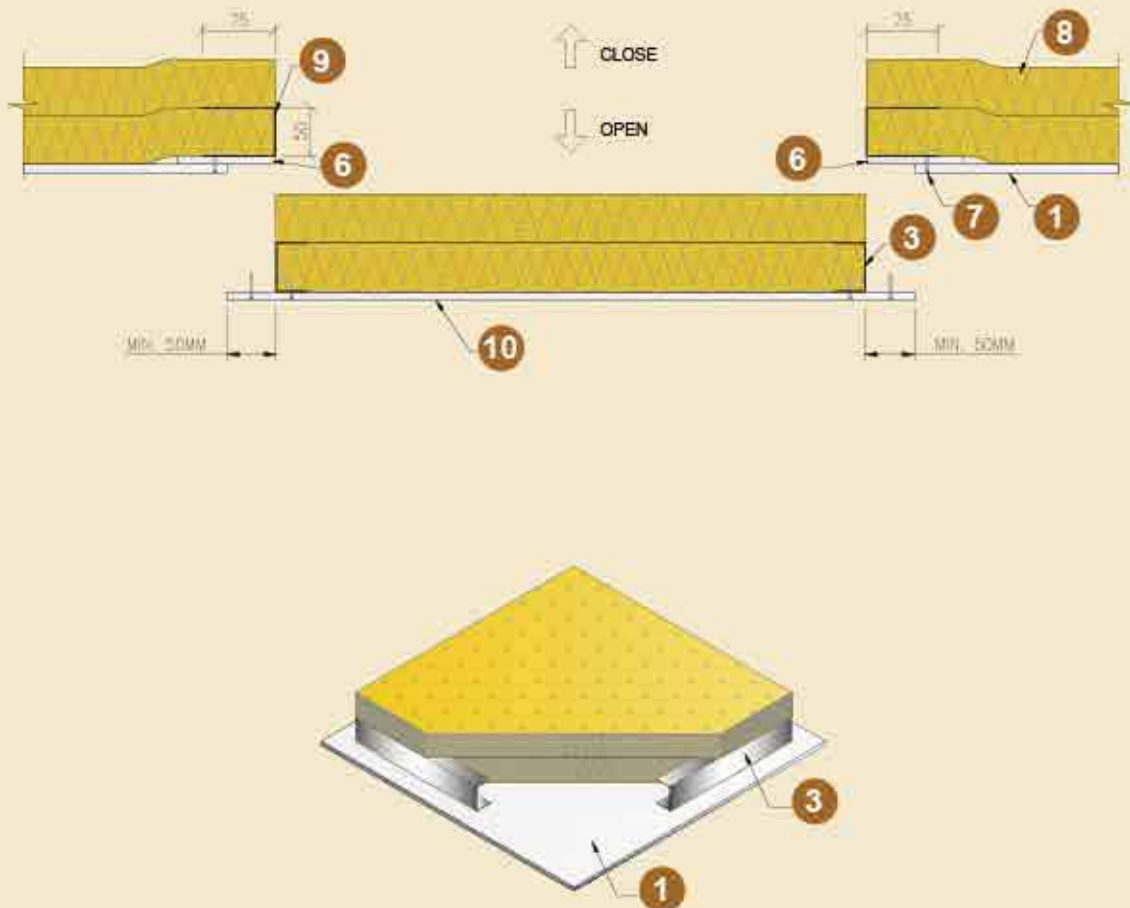


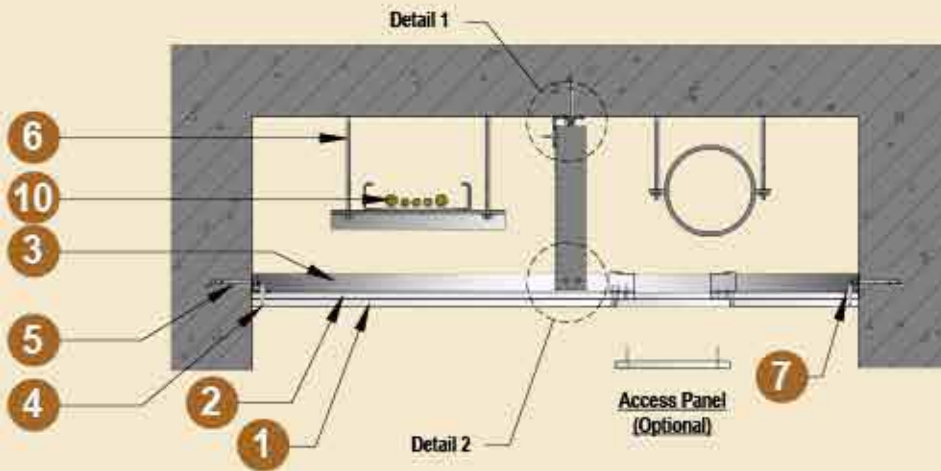
Fig 6 WINS ACCESS PANEL

Legend

- 1 Wins MO9 Fire Protection Board, 9mm thick
- 2 Steel C-channel at 610mm spacing, 32x50x32x0.5mm thick
- 3 Furring channel / perimeter C-channel, 25x50x25x0.5mm thick
- 4 Steel wire hanger @1000mm c/c
- 5 Board joints, all gaps sealed with intumescent sealant
- 6 Wins MO9 Fire Protection Board fillet, 100mm width, 9mm thick
- 7 Self tapping screws at nominal 200mm centres
- 8 Rockwool-2 layers of 50mm thick (80kg/m³)
- 9 Ceiling opening, stiffener galvanised steel C-channel, 75x50x75x0.5mm thick
- 10 Access panel (optional, all board surface)

WINS MO Fire Protection Board 9mm Thick Enclosure System

4 hours Fire Rating, Integrity in accordance
with BS 476:Part 22:1987



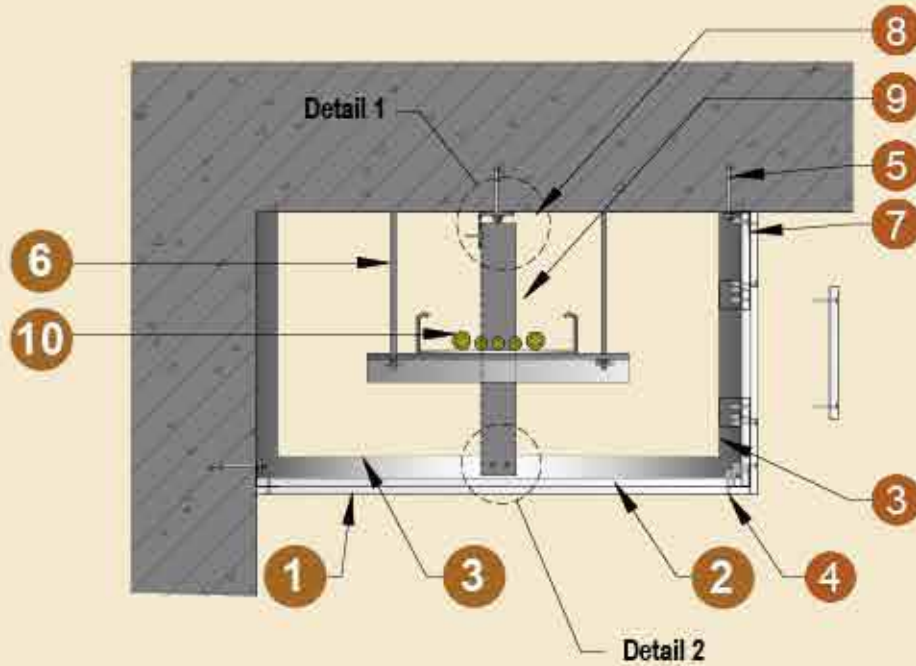
One-sided Wins MO9 Fire Protection Board Enclosure System

Legend

- 1 Wins MO Fire Protection Board, 9mm thick
- 2 Wins MO Fire Protection Board Fillet 100mm width, 9mm thick (inside or outside)
- 3 Steel Channel Collar Minimum 32 x 50 x 0.5mm thick at Butt Joints of nominal 1220mm centres
- 4 M4 self-tapping screw at nominal 200mm centres
- 5 M6 anchor bolt at nominal 500mm centres
- 6 Threaded rod hanger stress not exceed 10N / mm²
- 7 Steel angle minimum 25 x 25 x 0.6mm thick
- 8 Steel angle minimum 50 x 50 x 0.6mm thick
- 9 Additional steel angle (50 x 50 x 0.6mm thk.) of max. spacing 1220mm for the width of enclosure 1500mm
- 10 General E & M services eg. cable trunking & steel pipe etc.
- 11 Cantilever arm at Maximum 1250mm centre
- 12 Construction wall
- 13 Concrete floor
- 14 C-channel 50 x 50 x 50 x 0.6mm thick
- 15 Access panel max. 610 x 610mm (optional, any board surface)
- 16 Steel stud 32 x 50 x 32 x 0.6mm thick

Wins MO Fire Protection Board 9mm Thick Enclosure System

4 hours Fire Rating, Integrity in accordance with
BS 476:Part 22:1987



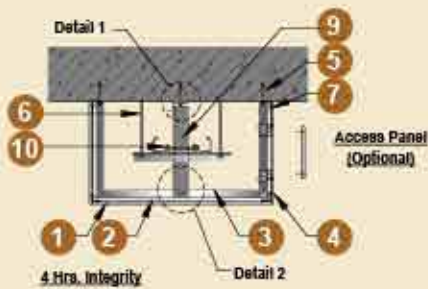
Two-sided Wins MO9 Fire Protection Board Enclosure System

Legend

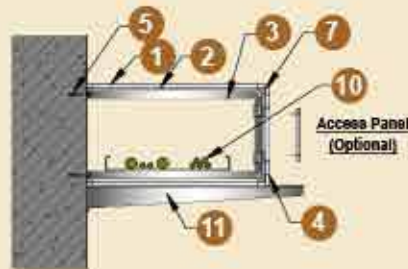
- ① Wins MO Fire Protection Board, 9mm thick
- ② Wins MO Fire Protection Board Fillet 100mm width, 9mm thick (inside or outside)
- ③ Steel Channel Collar Minimum 32 x 50 x 0.5mm thick at Butt Joints of nominal 1220mm centres
- ④ M4 self-tapping screw at nominal 200mm centres
- ⑤ M6 anchor bolt at nominal 500mm centres
- ⑥ Threaded rod hanger stress not exceed 10N / mm²
- ⑦ Steel angle minimum 25 x 25 x 0.6mm thick
- ⑧ Steel angle minimum 50 x 50 x 0.6mm thick
- ⑨ Additional steel angle (50 x 50 x 0.6mm thk.) of max. spacing 1220mm for the width of enclosure 1500mm
- ⑩ General E & M services eg. cable trunking & steel pipe etc.
- ⑪ Cantilever arm at Maximum 1250mm centre
- ⑫ Construction wall
- ⑬ Concrete floor
- ⑭ C-channel 50 x 50 x 50 x 0.6mm thick
- ⑮ Access panel max. 610 x 610mm (optional, any board surface)
- ⑯ Steel stud 32 x 50 x 32 x 0.6mm thick

WINS MO Fire Protection Board 9mm Thick Enclosure System

4 hours Fire Rating, Integrity in accordance with
BS 476:Part 22:1987



Three-sided Construction from Floor Soffit



Three-sided Construction from Side Wall

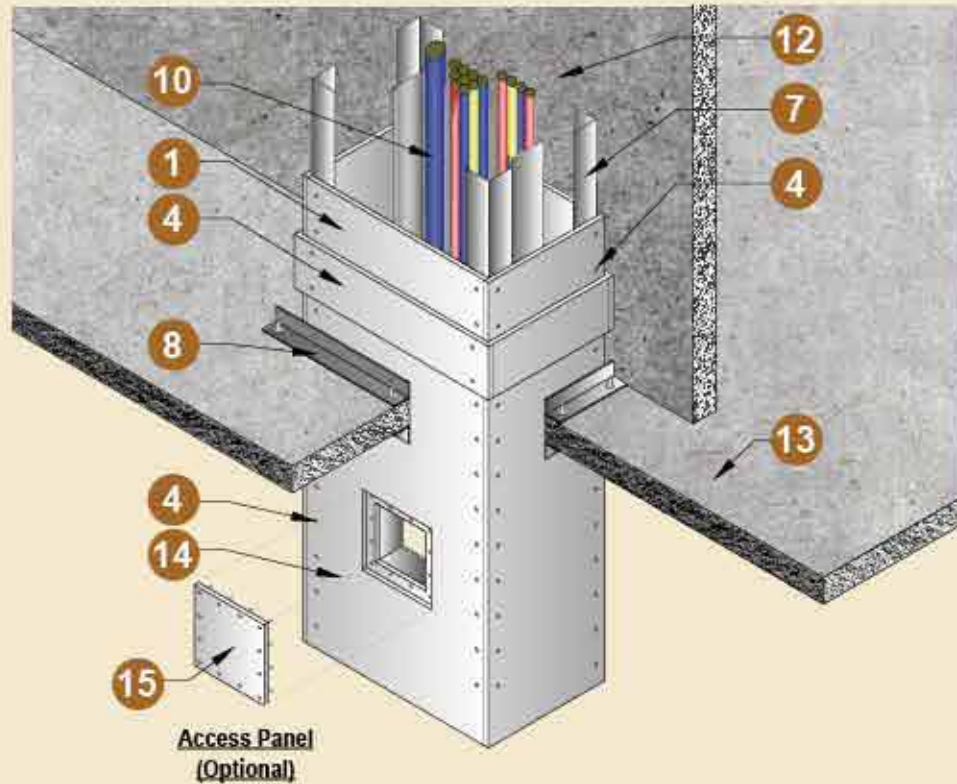
Legend

- 1 Wins MO Fire Protection Board, 9mm thick
- 2 Wins MO Fire Protection Board Fillet 100mm width, 9mm thick (inside or outside)
- 3 Steel Channel Collar Minimum 32 x 50 x 0.5mm thick at Butt Joints of nominal 1220mm centres
- 4 M4 self-tapping screw at nominal 200mm centres
- 5 M6 anchor bolt at nominal 500mm centres
- 6 Threaded rod hanger stress not exceed 10N / mm²
- 7 Steel angle minimum 25 x 25 x 0.6mm thick
- 8 Steel angle minimum 50 x 50 x 0.6mm thick
- 9 Additional steel angle (50 x 50 x 0.6mm thk.) of max. spacing 1220mm for the width of enclosure 1500mm
- 10 General E & M services eg. cable trunking & steel pipe etc.
- 11 Cantilever arm at Maximum 1250mm centre
- 12 Construction wall
- 13 Concrete floor
- 14 C-channel 50 x 50 x 50 x 0.6mm thick
- 15 Access panel max. 610 x 610mm (optional, any board surface)
- 16 Steel stud 32 x 50 x 32 x 0.6mm thick



WINS MO Fire Protection Board 9mm Thick Enclosure System

4 hours Fire Rating, Integrity in accordance with
BS 476:Part 22:1987



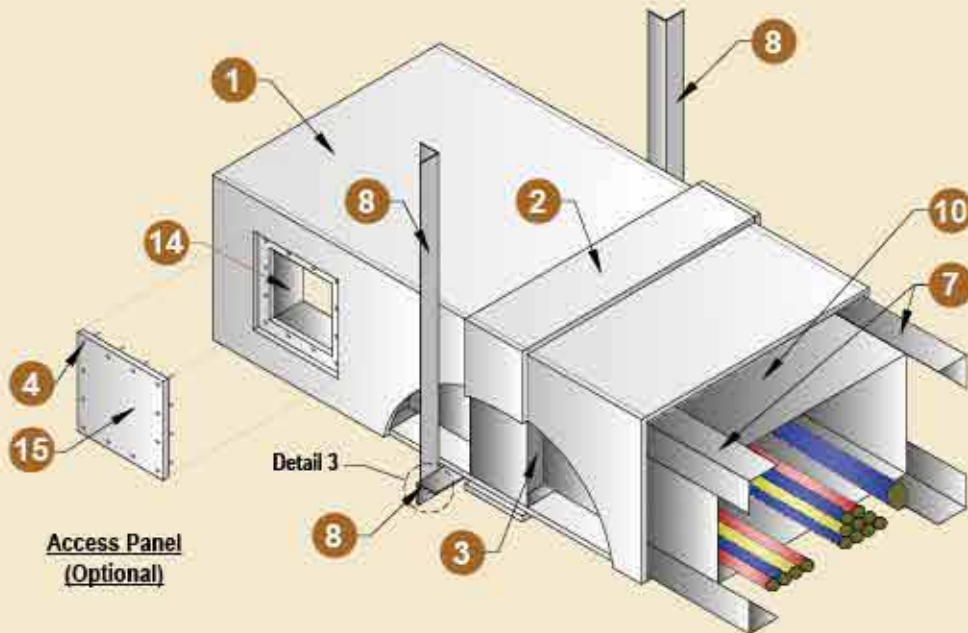
Three-sided Wins MO9 Fire Protection Board Vertical Enclosure System

Legend

- 1 Wins MO Fire Protection Board, 9mm thick
- 2 Wins MO Fire Protection Board Fillet 100mm width, 9mm thick (inside or outside)
- 3 Steel Channel Collar Minimum 32 x 50 x 0.5mm thick at Butt Joints of nominal 1220mm centres
- 4 M4 self-tapping screw at nominal 200mm centres
- 5 M6 anchor bolt at nominal 500mm centres
- 6 Threaded rod hanger stress not exceed 10N / mm²
- 7 Steel angle minimum 25 x 25 x 0.6mm thick
- 8 Steel angle minimum 50 x 50 x 0.6mm thick
- 9 Additional steel angle (50 x 50 x 0.6mm thk.) of max. spacing 1220mm for the width of enclosure 1500mm
- 10 General E & M services eg. cable trunking & steel pipe etc.
- 11 Cantilever arm at Maximum 1250mm centre
- 12 Construction wall
- 13 Concrete floor
- 14 C-channel 50 x 50 x 50 x 0.6mm thick
- 15 Access panel max. 610 x 610mm (optional, any board surface)
- 16 Steel stud 32 x 50 x 32 x 0.6mm thick

WINS MO Fire Protection Board 9mm Thick Enclosure System

4 hours Fire Rating. Integrity in accordance with
BS 476:Part 22:1987



Access Panel
(Optional)

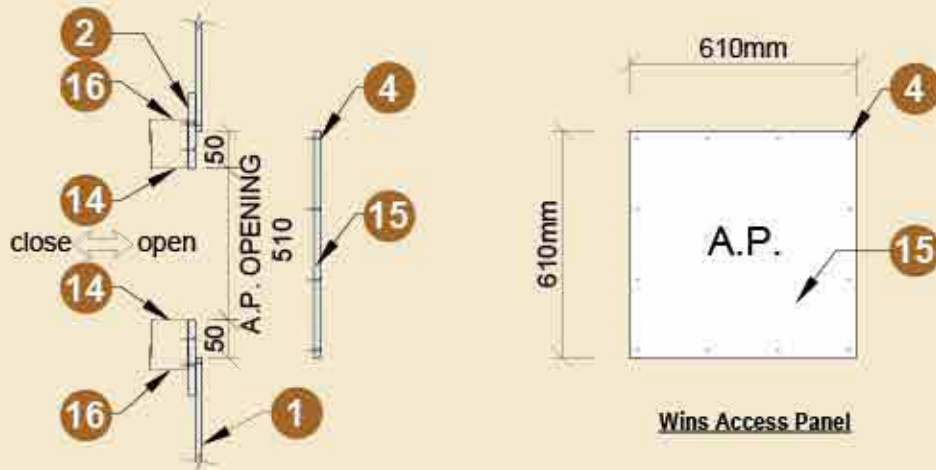
Four Sided Wins M09 Fire Protection Board Horizontal Enclosure System

Legend

- 1 Wins MO Fire Protection Board, 9mm thick
- 2 Wins MO Fire Protection Board Fillet 100mm width, 9mm thick (inside or outside)
- 3 Steel Channel Collar Minimum 32 x 50 x 0.5mm thick at Butt Joints of nominal 1220mm centres
- 4 M4 self-tapping screw at nominal 200mm centres
- 5 M6 anchor bolt at nominal 500mm centres
- 6 Threaded rod hanger stress not exceed 10N / mm²
- 7 Steel angle minimum 25 x 25 x 0.6mm thick
- 8 Steel angle minimum 50 x 50 x 0.6mm thick
- 9 Additional steel angle (50 x 50 x 0.6mm thk.) of max. spacing 1220mm for the width of enclosure 1500mm
- 10 General E & M services eg. cable trunking & steel pipe etc.
- 11 Cantilever arm at Maximum 1250mm centre
- 12 Construction wall
- 13 Concrete floor
- 14 C-channel 50 x 50 x 50 x 0.6mm thick
- 15 Access panel max. 610 x 610mm (optional, any board surface)
- 16 Steel stud 32 x 50 x 32 x 0.6mm thick

WINS MO Fire Protection Board 9mm Thick Enclosure System

4 hours Fire Rating, Integrity in accordance with
BS 476:Part 22:1987



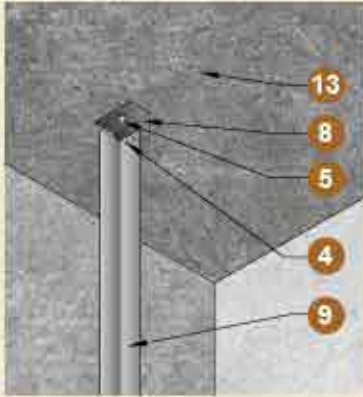
Access Panel Detail

Legend

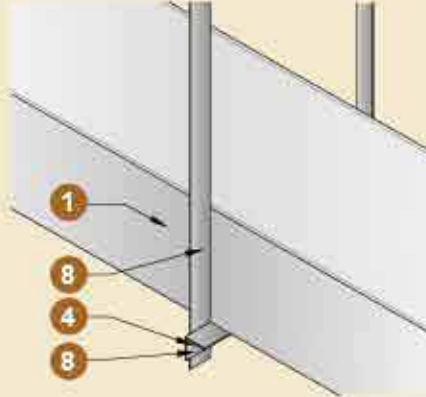
- 1 Wins MO Fire Protection Board, 9mm thick
- 2 Wins MO Fire Protection Board Fillet 100mm width, 9mm thick (inside or outside)
- 3 Steel Channel Collar Minimum 32 x 50 x 0.5mm thick at Butt Joints of nominal 1220mm centres
- 4 M4 self-tapping screw at nominal 200mm centres
- 5 M6 anchor bolt at nominal 500mm centres
- 6 Threaded rod hanger stress not exceed 10N / mm²
- 7 Steel angle minimum 25 x 25 x 0.6mm thick
- 8 Steel angle minimum 50 x 50 x 0.6mm thick
- 9 Additional steel angle (50 x 50 x 0.6mm thk.) of max. spacing 1220mm for the width of enclosure 1500mm
- 10 General E & M services eg. cable trunking & steel pipe etc.
- 11 Cantilever arm at Maximum 1250mm centre
- 12 Construction wall
- 13 Concrete floor
- 14 C-channel 50 x 50 x 50 x 0.6mm thick
- 15 Access panel max. 610 x 610mm (optional, any board surface)
- 16 Steel stud 32 x 50 x 32 x 0.6mm thick

WINS MO Fire Protection Board 9mm Thick Enclosure System

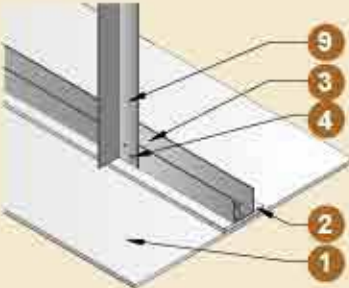
4 hours Fire Rating, Integrity in accordance with
BS 476:Part 22: 1987



Detail 1



Detail 3



Detail 3

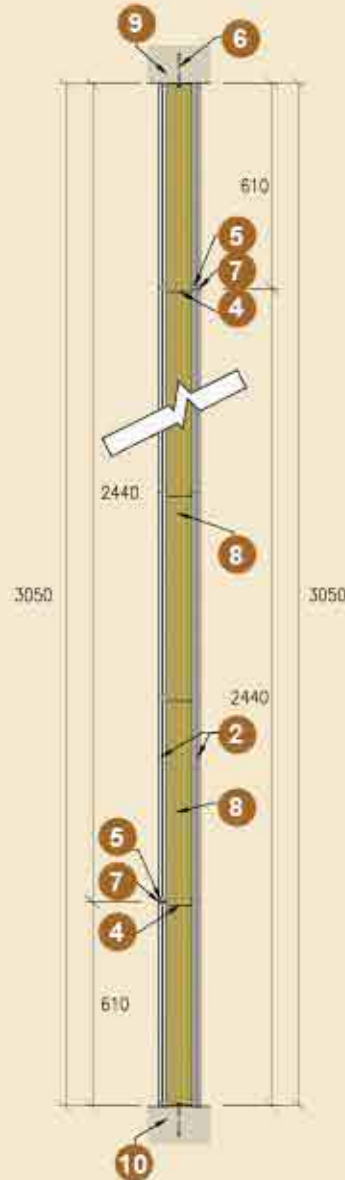
Legend

- 1 Wins MO Fire Protection Board, 9mm thick
- 2 Wins MO Fire Protection Board Fillet 100mm width, 9mm thick (inside or outside)
- 3 Steel Channel Collar Minimum 32 x 50 x 0.5mm thick at Butt Joints of nominal 1220mm centres
- 4 M4 self-tapping screw at nominal 200mm centres
- 5 M6 anchor bolt at nominal 500mm centres
- 6 Threaded rod hanger stress not exceed 10N / mm²
- 7 Steel angle minimum 25 x 25 x 0.6mm thick
- 8 Steel angle minimum 50 x 50 x 0.6mm thick
- 9 Additional steel angle (50 x 50 x 0.6mm thk.) of max. spacing 1220mm for the width of enclosure 1500mm
- 10 General E & M services eg. cable trunking & steel pipe etc.
- 11 Cantilever arm at Maximum 1250mm centre
- 12 Construction wall
- 13 Concrete floor
- 14 C-channel 50 x 50 x 50 x 0.6mm thick
- 15 Access panel max. 610 x 610mm (optional, any board surface)
- 16 Steel stud 32 x 50 x 32 x 0.6mm thick

Partitions, 75 to 125mm Thickness (Acoustic)

WINS MO12 Fire Protection Board Sound Reduction System

125mm thick drywall system
(Sound Transmission Class - STC 58)

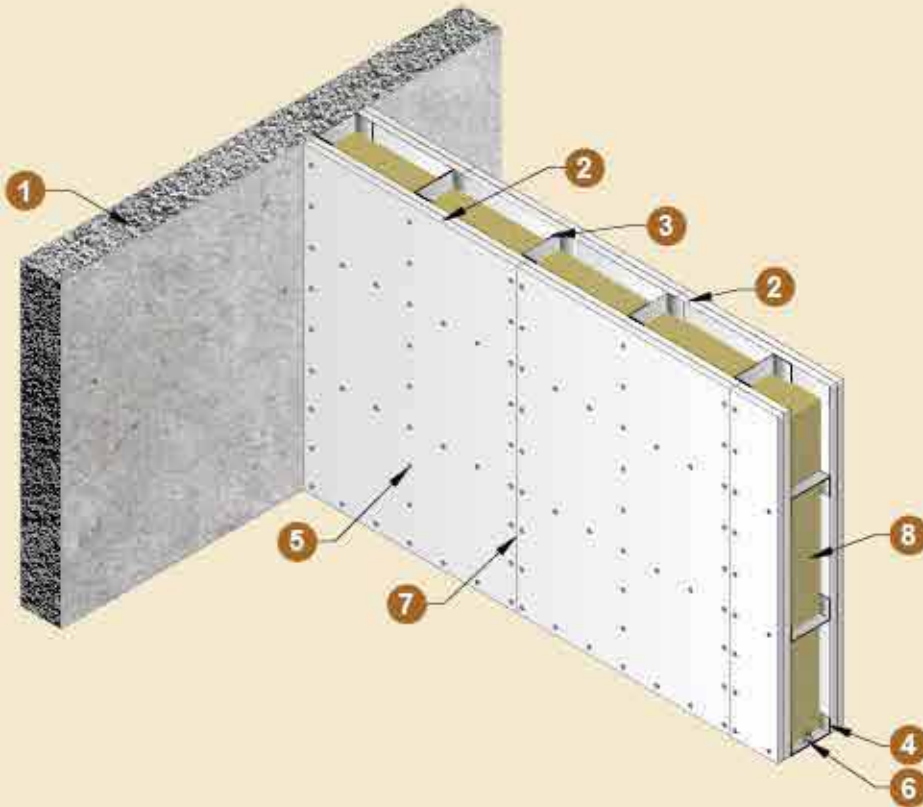


Legend

- 1 Wall
- 2 Wins MO12 Fire Protection Board, 12mm thick (2 layers on each side)
- 3 Steel stud 32x75x32x0.5mm thick, @610mm c/c
- 4 Steel track / channel 24x75x24x0.8mm thick
- 5 M4 Self-tapping screw, @200mm c/c
- 6 M6 anchor bolt
- 7 Board Joint, with fire retardant sealant
- 8 Rock wool, 60Kg/m³, 75mm thick
- 9 Ceiling
- 10 Floor

WINS MO12 Fire Protection Board Sound Reduction System

125mm thick drywall system
(Sound Transmission Class - STC 56)



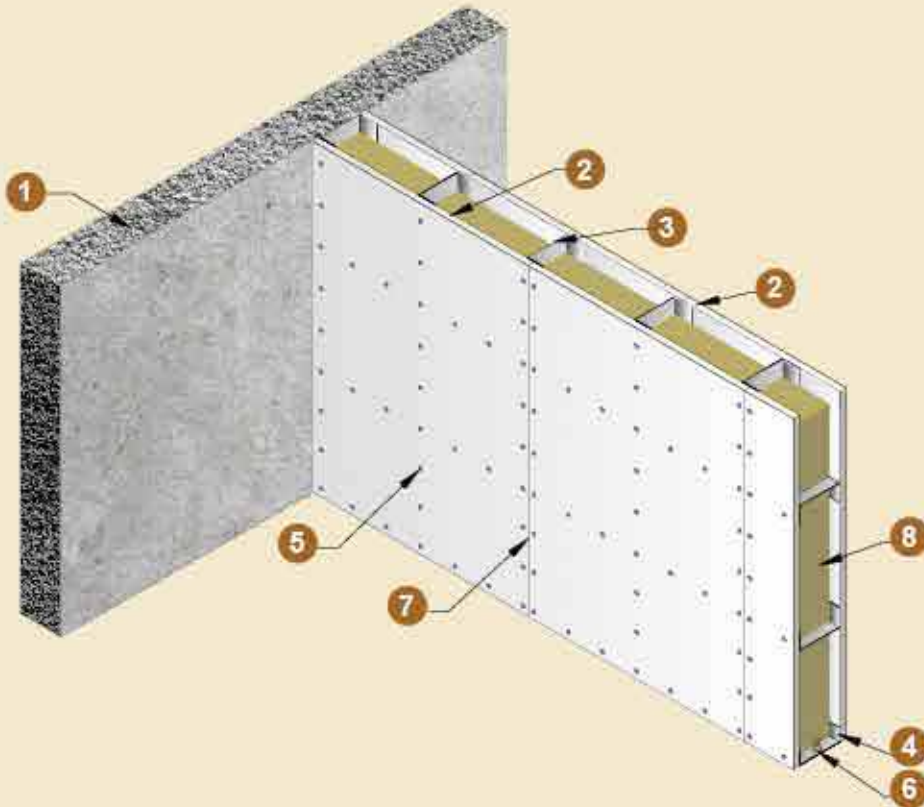
Legend

- ① Wall
- ② Wins MO12 Fire Protection Board, 12mm thick (2 layers on each side)
- ③ Vertical steel stud channel 32x75x32x0.5mm thick, @610mm c/c
- ④ Ceiling floor perimeter steel channel 24x75x24x0.8mm
- ⑤ M4 Self-tapping screw, @200mm c/c
- ⑥ M6 steel anchor bolt
- ⑦ Board Joint, sealed with fire retardant sealant
- ⑧ Rock wool, 60Kg/m³, 75mm thick



WINS MO12 Fire Protection Board Sound Reduction System

100mm thick drywall system
(Sound Transmission Class - STC 48)



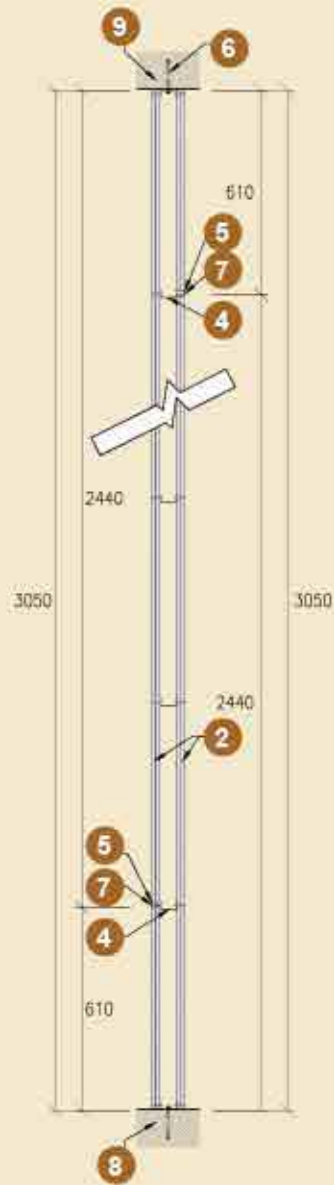
Legend

- ① Wall
- ② WINS MO12 Fire Protection Board, 12mm thick
- ③ Vertical steel stud channel 32x75x32x0.5mm thick, @610mm c/c
- ④ Ceiling floor perimeter steel channel 24x75x24x0.8mm
- ⑤ M4 Self-tapping screw, @200mm c/c
- ⑥ M6 steel anchor bolt
- ⑦ Board Joint, sealed with fire retardant sealant
- ⑧ Rock wool, 60Kg/m³, 75mm thick



WINS MO12 Fire Protection Board Sound Reduction System

125mm thick drywall system
(Sound Transmission Class - STC 61)

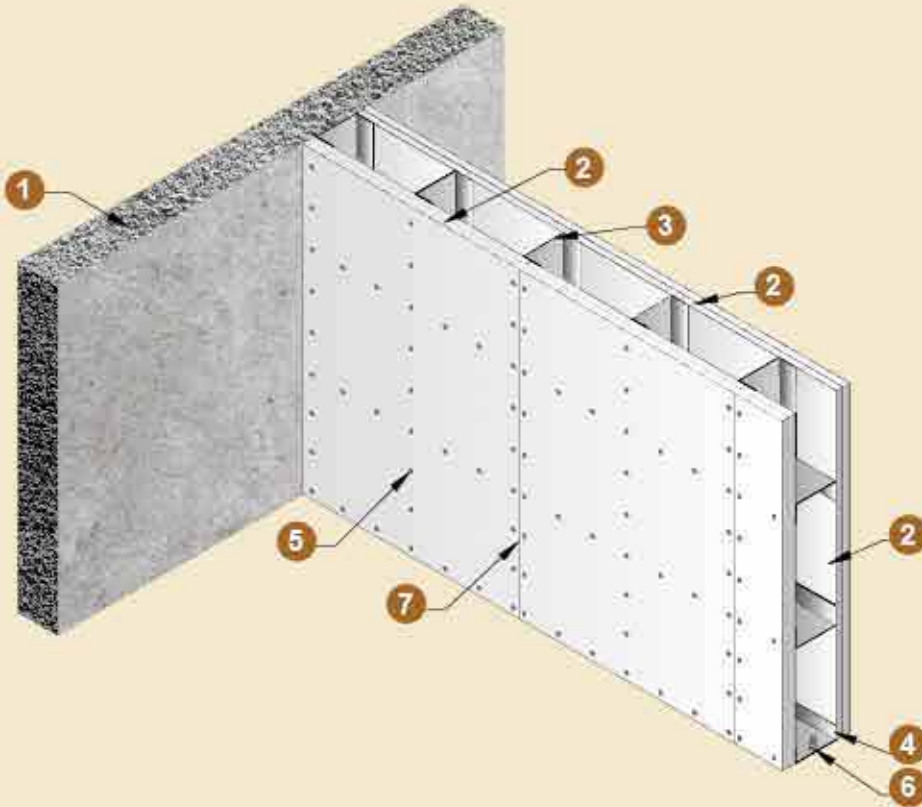


Legend

- 1 Wall
- 2 Wins MO12 Fire Protection Board, 12mm thick (2 layers on each side)
- 3 Steel stud 32x75x32x0.5mm thick, @610mm c/c
- 4 Steel track / channel 24x75x24x0.8mm thick
- 5 M4 Self-tapping screw, @200mm c/c
- 6 M6 anchor bolt
- 7 Board Joint, with fire retardant sealant
- 8 Floor
- 9 Ceiling

WINS MO12 Fire Protection Board Sound Reduction System

125mm thick drywall system
(Sound Transmission Class - STC 51)



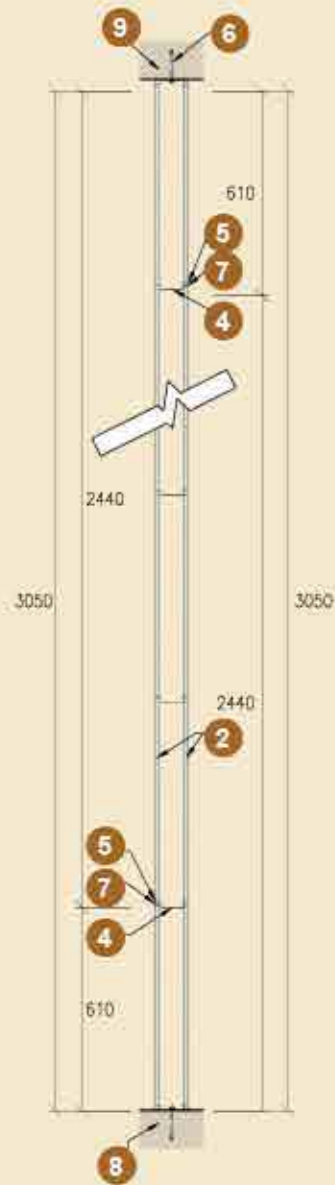
Legend

- ① Wall
- ② Wins MO12 Fire Protection Board, 12mm thick (2 layers on each side)
- ③ Vertical steel stud channel 32x75x32x0.5mm thick, @610mm c/c
- ④ Ceiling floor perimeter steel channel 24x75x24x0.8mm
- ⑤ M4 Self-tapping screw, @200mm c/c
- ⑥ M6 steel anchor bolt
- ⑦ Board Joint, sealed with fire retardant sealant



WINS MO12 Fire Protection Board Sound Reduction System

100mm thick drywall system
(Sound Transmission Class - STC 43)

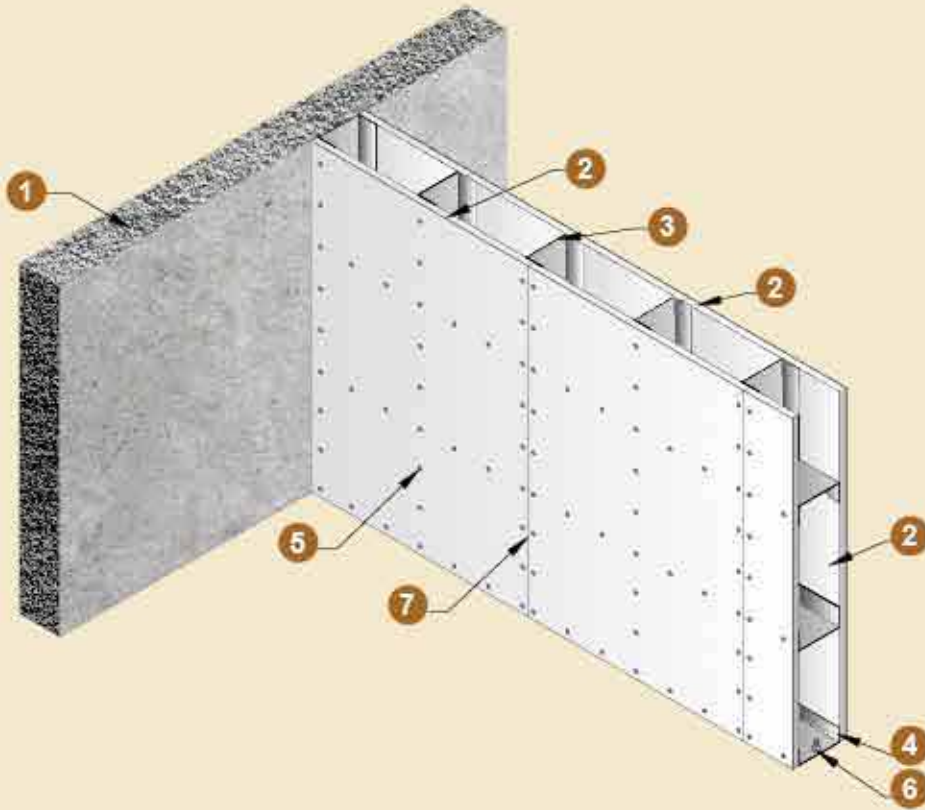


Legend

- 1 Wall
- 2 Wins MO12 Fire Protection Board, 12mm thick
- 3 Steel stud 32x75x32x0.5mm thick, @610mm c/c
- 4 Steel track / channel 24x75x24x0.8mm thick
- 5 M4 Self-tapping screw, @200mm c/c
- 6 M6 anchor bolt
- 7 Board Joint, with fire retardant sealant
- 8 Floor
- 9 Ceiling

WINS MO12 Fire Protection Board Sound Reduction System

125mm thick drywall system
(Sound Transmission Class - STC 43)



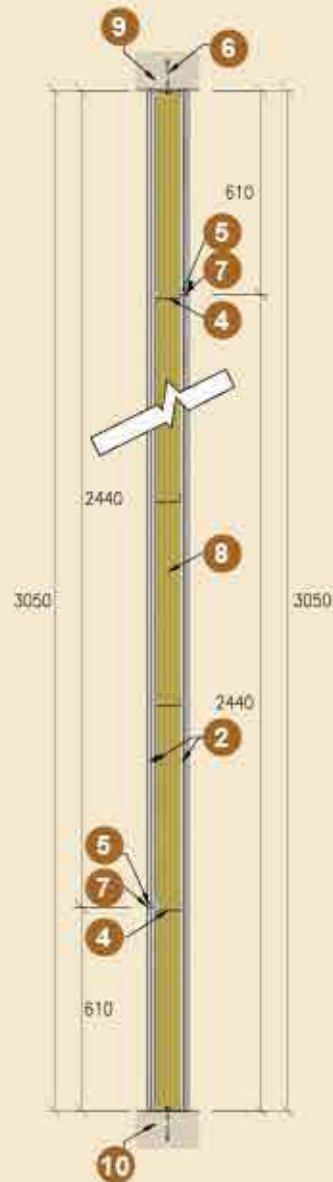
Legend

- ① Wall
- ② Wins MO12 Fire Protection Board, 12mm thick
- ③ Vertical steel stud channel 32x75x32x0.5mm thick, @610mm c/c
- ④ Ceiling floor perimeter steel channel 24x75x24x0.8mm
- ⑤ M4 Self-tapping screw, @200mm c/c
- ⑥ M6 steel anchor bolt
- ⑦ Board Joint, sealed with fire retardant sealant



WINS MO12 Fire Protection Board Sound Reduction System

100mm thick drywall system
(Sound Transmission Class - STC 51)

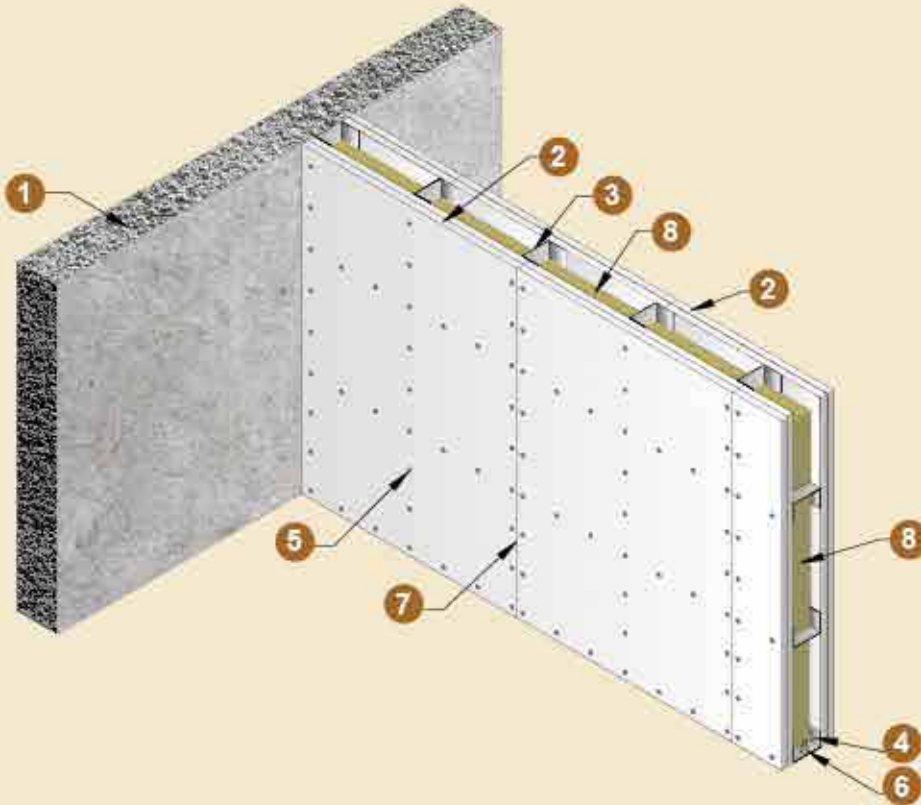


Legend

- 1 Wall
- 2 Wins MO12 Fire Protection Board, 12mm thick (2 layers on each side)
- 3 Steel stud 32x50x32x0.5mm thick, @610mm c/c
- 4 Steel track / channel 24x50x24x0.8mm thick
- 5 M4 Self-tapping screw, @200mm c/c
- 6 M6 anchor bolt
- 7 Board Joint, with fire retardant sealant
- 8 Rock wool, 50mm thick, 60Kg/m³
- 9 Ceiling
- 10 Floor

WINS MO12 Fire Protection Board Sound Reduction System

100mm thick drywall system
(Sound Transmission Class - STC 51)



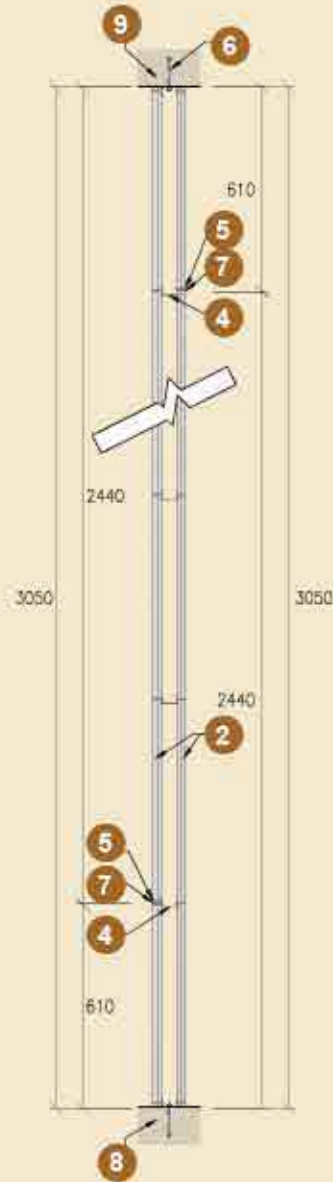
Legend

- ① Wall
- ② Wins MO12 Fire Protection Board, 12mm thick (2 layers on each side)
- ③ Vertical steel stud channel 32x50x32x0.5mm thick, @610mm c/c
- ④ Ceiling floor perimeter steel channel 24x50x24x0.8mm
- ⑤ M4 Self-tapping screw, @200mm c/c
- ⑥ M6 steel anchor bolt
- ⑦ Board Joint, sealed with fire retardant sealant
- ⑧ Rock wool, 60Kg/m³, 50mm thick



WINS MO12 Fire Protection Board Sound Reduction System

100mm thick drywall system
(Sound Transmission Class - STC 46)

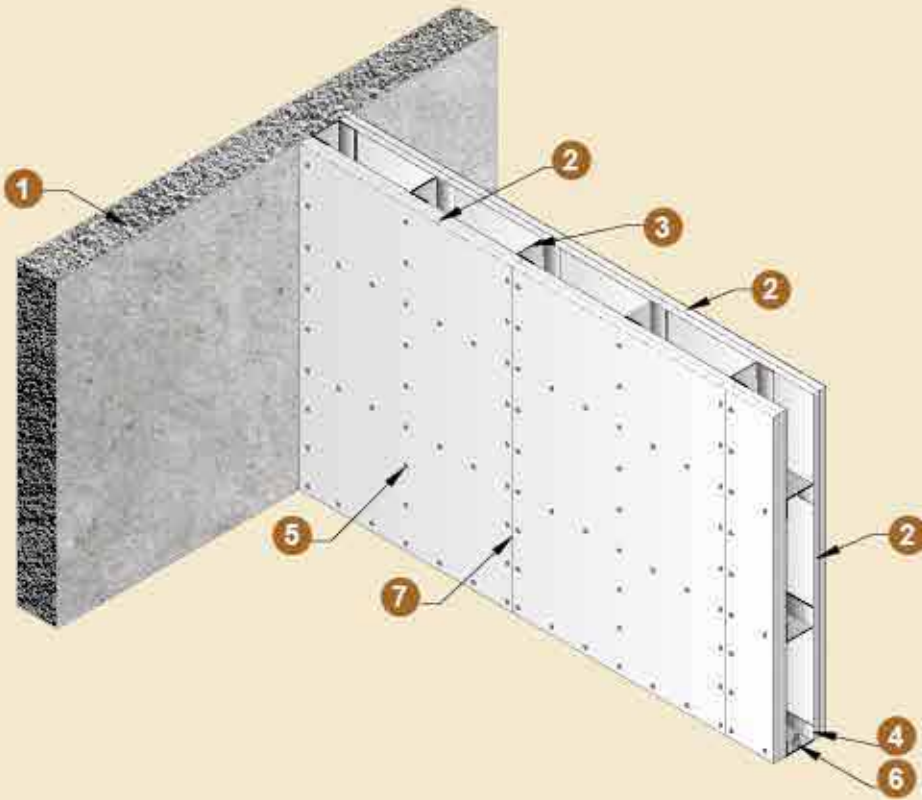


Legend

- 1 Wall
- 2 Wins MO12 Fire Protection Board, 12mm thick (2 layers on each side)
- 3 Vertical steel stud channel 32x50x32x0.5mm thick, @610mm c/c
- 4 Steel track / channel 24x50x24x0.8mm thick
- 5 M4 Self-tapping screw, @200mm c/c
- 6 M6 steel anchor bolt
- 7 Board Joint, sealed with fire retardant sealant
- 8 Floor
- 9 Ceiling

WINS MO12 Fire Protection Board Sound Reduction System

100mm thick drywall system
(Sound Transmission Class - STC 46)



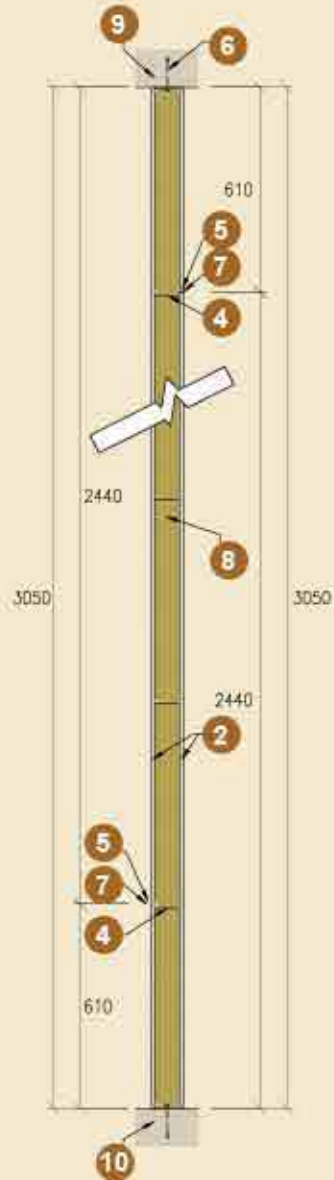
Legend

- ① Wall
- ② Wins MO12 Fire Protection Board, 12mm thick (2 layers on each side)
- ③ Vertical steel stud channel 32x50x32x0.5mm thick, @610mm c/c
- ④ Ceiling floor perimeter steel channel 24x50x24x0.8mm
- ⑤ M4 Self-tapping screw, @200mm c/c
- ⑥ M6 steel anchor bolt
- ⑦ Board Joint, sealed with fire retardant sealant



WINS MO12 Fire Protection Board Sound Reduction System

75mm thick drywall system
(Sound Transmission Class - STC 43)

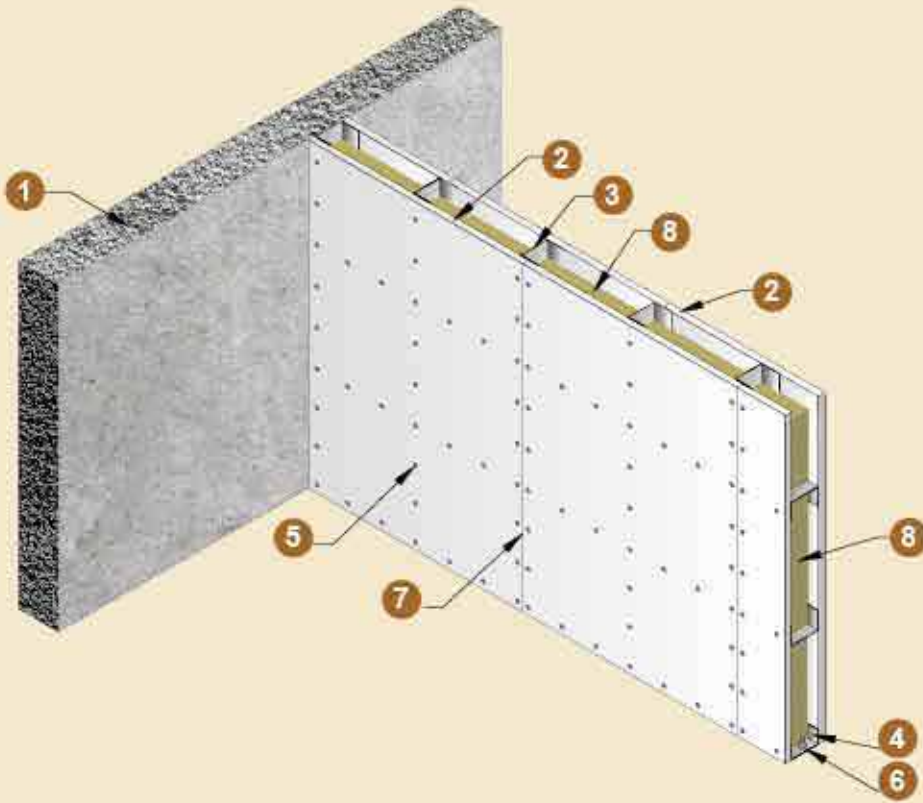


Legend

- 1 Wall
- 2 Wins MO12 Fire Protection Board, 12mm thick
- 3 Steel stud 32x50x32x0.5mm thick, @610mm c/c
- 4 Steel track / channel 24x50x24x0.8mm thick
- 5 M4 Self-tapping screw, @200mm c/c
- 6 M6 anchor bolt
- 7 Board Joint, with fire retardant sealant
- 8 Rock wool, 60Kg/m³, 50mm thick
- 9 Ceiling
- 10 Floor

WINS MO12 Fire Protection Board Sound Reduction System

75mm thick drywall system
(Sound Transmission Class - STC 43)



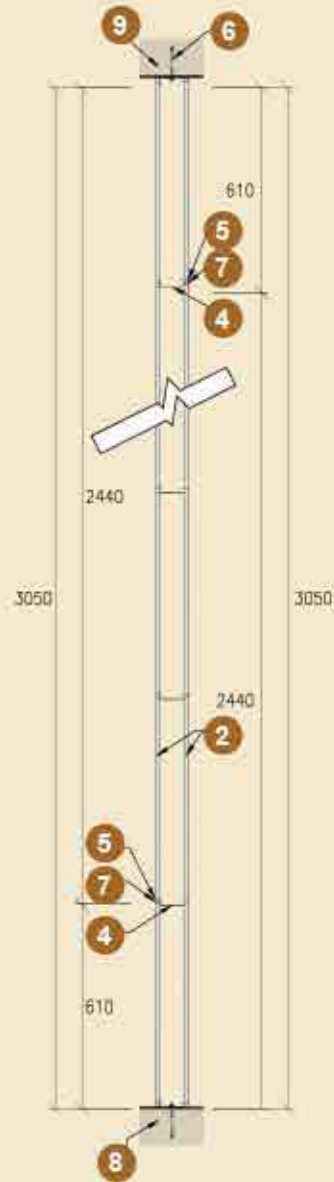
Legend

- ① Wall
- ② WINS MO12 Fire Protection Board, 12mm thick
- ③ Vertical steel stud channel 32x50x32x0.5mm thick, @610mm c/c
- ④ Ceiling floor perimeter steel channel 24x50x24x0.8mm
- ⑤ M4 Self-tapping screw, @200mm c/c
- ⑥ M6 steel anchor bolt
- ⑦ Board Joint, sealed with fire retardant sealant
- ⑧ Rock wool, 60Kg/m³, 50mm thick



WINS MO12 Fire Protection Board Sound Reduction System

75mm thick drywall system
(Sound Transmission Class - STC 38)

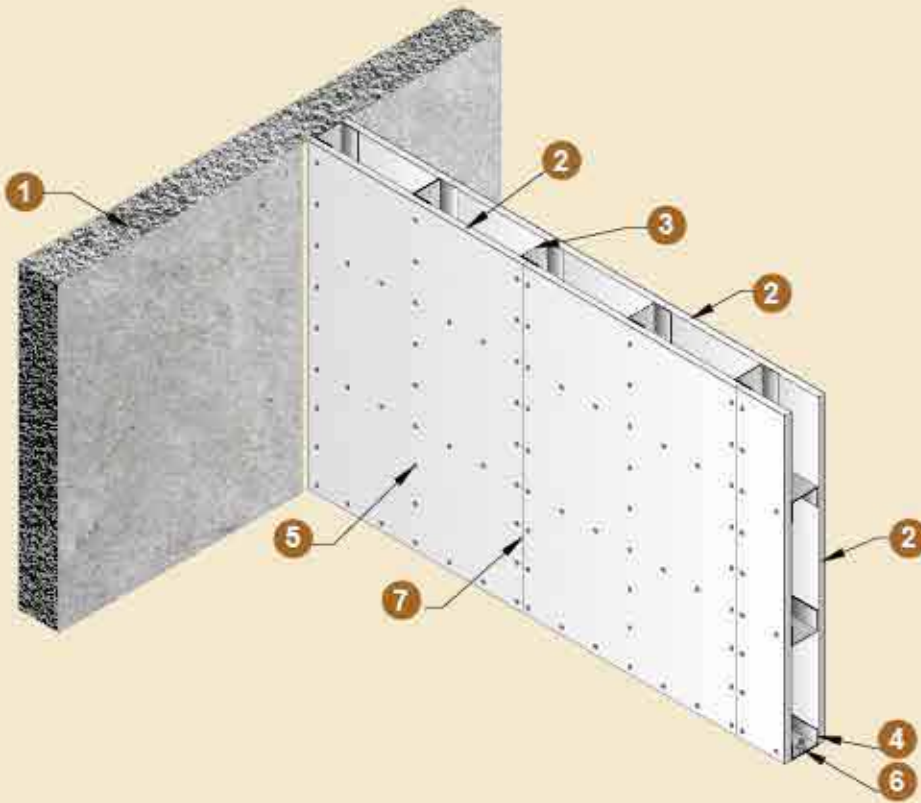


Legend

- 1 Wall
- 2 Wins MO12 Fire Protection Board, 12mm thick
- 3 Steel stud 32x50x32x0.5mm thick, @610mm c/c
- 4 Steel track / channel 24x50x24x0.8mm thick
- 5 M4 Self-tapping screw, @200mm c/c
- 6 M6 anchor bolt
- 7 Board Joint, with fire retardant sealant
- 8 Floor
- 9 Ceiling

WINS MO12 Fire Protection Board Sound Reduction System

75mm thick drywall system
(Sound Transmission Class - STC 38)



Legend

- ① Wall
- ② Wins MO12 Fire Protection Board, 12mm thick
- ③ Steel stud 32x50x32x0.5mm thick, @610mm c/c
- ④ Steel track / channel 24x50x24x0.8mm thick
- ⑤ M4 Self-tapping screw, @200mm c/c
- ⑥ M6 anchor bolt
- ⑦ Board Joint, with fire retardant sealant
- ⑧ Floor
- ⑨ Ceiling



Notary Endorsements

WINS MO Board, with its outstanding fire-proofing and sound-proofing performance, can be used in a wide range of applications. The fine quality of this product makes it a favorite among engineering contractors. Quality assurance certificates and applications of our magnesium oxide board are as follows:

Laboratory test results endorse that our boards meet the following fire-proof standards:

- Building Research Association of New Zealand (BRANZ)
[BS 476 Part 22: 1987]
- Singapore Productivity and Standards Board (PSB SINGAPORE)
[BS 476 Part 4: 1970 & BS 476 Part 22: 1987]
- Research Engineering Development Facade Consultants Limited (RED)
[BS 476 Part 22: 1987]
- China National Accreditation Service for Conformity Assessment (CNAS)

Acoustic Lab Tests:

- A+A* Laboratory (HOKLAS) STC 56
- The Hong Kong Polytechnic University

FIRE-PROOFING FEATURES

- Applied on partition panels
- Government accreditation certificate
- Up to 4 hours fire-resistance period
- Suitable for hospitals, computer rooms, offices, elderly homes, kitchens, restaurants, large shopping malls, smoke vent panels.



FIRE PROOF WOODEN DOOR AND INNER PANELS OF STEEL DOORS

- With an appropriate design, this product can delay the spread of fire and dense smoke.
- Up to 4 hours fire-resistance period.
- Suitable for fire exits, security doors of banks, and steel vault door.



HIGH SOUND-PROOFING PERFORMANCE

- Applied on acoustic panels in venues like conference rooms, concert halls, cinemas, karaoke rooms and majong rooms.
- Sound-proofing effect superior to brick walls.



EASY APPLICATION

- Fast and easy application
- Board surface can be further treated with paint, wall-paper or ceramic tiles.
- No plastering required, and space saving
- No damage to original decoration.
- Allowing further treatments like scraping, sawing or nailing
- Minimum breaking or cracks.
- Combining advantages of plywood, cement and plaster boards.

Vital Use of Fire Protection Boards

Why fire and smoke containment?

The answer to this question is primarily to allow the personnel within a building, time to make a safe and orderly exit, in the case of a fire. (LIFE SAFETY).

In the event of a fire breaking out in a building a number of fire engineering systems activate. These systems could include, sprinklers, audible and visual alarms, smoke sensors and extraction ductwork or even manually operated extinguishers. These systems will contribute to the overall safety of personnel but may not be 100 percent effective in containing the fire in an area.

It is essential to also design into these buildings a number of passive fire protection measures. The number of hours protection these passive systems should give will be determined by the building type or function. The type of passive protection used may include, but not be limited to the following.

Fire Rated Walls

Fire Rated Ceilings or Floors

Fire Doors

Fire Protected Escape Lobbies

Fire Protected Shafts

Fire and Smoke Barriers

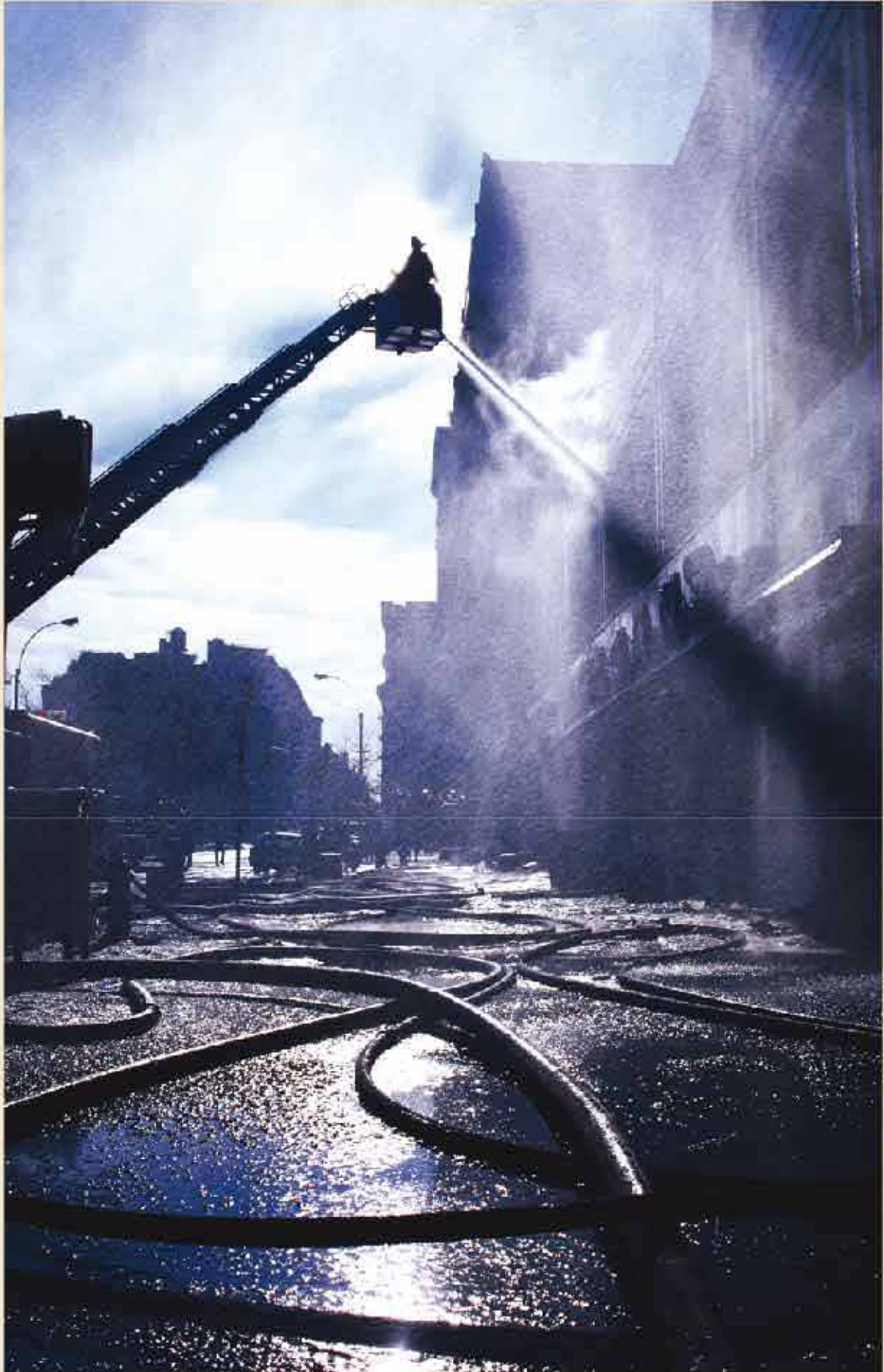
These are a few of the measures that need to be considered for effective fire containment. But it should be borne in mind that a fire compartment wall or floor with openings loses its total effect, if service penetrations are not sealed with fire rated materials.

One further item that should be considered within the building design is the fire protection of any structural elements, particularly in steel frame buildings. While this item cannot be classified as containment or compartmenting, it is never the less a very important factor in maintaining the overall stability of the building during a fire. Supporting structural steel elements will lose about 50 percent of their flexural or compressive strength at 550 degrees Celsius, if not adequately protected.

Secondary advantages of fire compartmenting may be, allowing additional time for the fire services to bring the blaze under control, reducing insurance premiums and enhancing property value.



Vital Use of Fire Protection Boards



HOW A FIRE BEHAVES

When fire breaks out in a building the heart of the fire raises the temperature so much that materials in direct contact give off gas and smoke. These emissions rise vertically to the ceiling and spread horizontally along it.

In an enclosed space these emissions will descend on the wall opposite to the heart of the fire, and in a short time the space will be filled with dense smoke. This smoke will reach a temperature of 500 degrees Celsius at which time materials within the area will combust spontaneously. This will cause the fire to spread faster.

The temperature rise and the gas emissions cause an overpressure in the area, such that hot smoke and gas is forced through any openings, seams or joints in walls or floors, enabling the fire to spread to other areas unchecked.

The smoke and gas emissions contain poisonous and corrosive components and these may cause massive damage to equipment some distance from the fire source. Consider the human injury, often fatal, and you will understand the importance of fire containment and compartmenting.





Website : www.winsconsultants.com