

CERTIFICATE

No. MPA-BS 6165/583/19

This is to certify that the construction product

FERMACELL Gypsum Fibre Board Partition System

placed on the market by

James Hardie GmbH
Bennigsen-Platz 1
40474 Düsseldorf
Germany

has been assessed against the requirements of the MPA General Requirements for Certification of Fire Protection Products and is approved for use subject to the application conditions appended hereto.

This certificate remains valid till 08-05-2024, if neither the product nor the production are modified significantly. This certificate remains also valid for modified applications provided the conditions in chapter D of this document are being met.

Braunschweig, 09-05-2024



Dr.-Ing. W. Hinrichs
Head of certification

- This document consists of 7 pages. -

This certificate relates to the use of the FERMACELL Gypsum Fibre Board Partition System, a non-loadbearing, insulated, mineral wool cored partition wall assembly. It attests fire resistance performance between 60 minutes and 120 minutes of partition systems and a shaft-wall, dependant on the framework, the insulation and the thickness of boards.

The certification is based on the MPA General Requirements for Certification of Fire Protection Products. For the initial type testing of the FERMACELL Gypsum Fibre Board Partition System EN 1363-1, EN 1363-2, EN 1364-1, ASTM E119-11 or BS 467 Part 22 were applied. Inspections of the Factory Production Control are performed on a regular basis including audit testing. The certification procedure applied encompasses all elements of ISO/IEC Guide 67 system 5.

SPECIFICATION FOR THE FERMACELL GYPSUM FIBRE BOARD PARTITION SYSTEM

The table gives an overview on different types of the system with the fire resistance performance and essential dimensional data:

TYPE	Fire rating [min]	Thickness [mm]	Wall height [m]
1S21	60	12.5	6.0
1S31	90	10.0 or 12.5	8.0
1S33		18.0	
1S31 and 1S41	120	2 x 12.5	4.0
1S33		18.0	
Shaft-wall	120	12.5 or 15.0	4.0

The descriptions for mounting below provide important specific information on the framework, the insulation and the boards to be used.

A. Fire resistance performance of up to 60 minutes (1S21)

FRAMEWORK

Head and base track (size: 75mm x 40mm x 0.6mm thick) shall be fixed to supporting the structure at maximum 600mm centres with steel fixings of a type to suit to the supporting structure.



Studs (size: 74mm x 47mm x 0.6mm thick with 6mm returned edges) shall be positioned within the head and base tracks at maximum 600mm centres and trimmed to allow a 10mm expansion gap at the head. The friction shall be fitted between the head and the base track section.

INSULATION

A cavity insulation with mineral rock fibre based slab (60mm thick, density 35 kg/m³) shall be used with the friction fitted between the studs.

For insulation a FERMACELL Perimeter strip with mineral rock wool (10mm thick, 1000mm long) shall be used which is clamped by the track section head and base and by the stud fixed along the vertical edge.

BOARDS

The FERMACELL gypsum fibre boards shall be fitted in a single layer per side and screwed to the framework using FERMACELL dry wall screws (size: 3.9mm x 30mm) at 250mm centres. Different joint techniques as described in the manufacturer's manual are allowed. The joints must be closed.

B. Fire resistance performance of up to 90 minutes

B.1 Partition system with a single layer FERMACELL gypsum fibre board (1S33)



FRAMEWORK

Head and base track (size: 75mm x 40mm x 0.6mm thick) shall be fixed to supporting the structure at maximum 1000mm centres with steel fixings of a type to suit to the supporting structure.

Studs (size: 74mm x 47mm x 0.6mm thick with 6mm returned edges) shall be positioned within the head and base tracks at maximum 600mm centres and trimmed to allow a 10mm expansion gap at the head. The friction shall be fitted between head and base track sections.

INSULATION

A cavity insulation mineral rock fibre based slab (60mm thick, density minimum 50 kg/m³) shall be used with the friction fitted between the studs.

For insulation a FERMACELL Perimeter strip with mineral rock wool (10mm thick, 1000mm long) shall be used which is clamped by the track section head and base and by the stud fixed along the vertical edge.

BOARDS

The FERMACELL gypsum fibre boards shall be fitted in one layer per side and screwed to the framework using FERMACELL dry wall screws (size: 3.9mm x 30mm) at 250mm centres. Different joint techniques as described in the manufacturer's manual are allowed. Joints must be closed.

B.2 Partition system with a double layer FERMACELL gypsum fibre board (1S31)

FRAMEWORK

Head and base track (size: 75mm x 40mm x 0.6mm thick) shall be fixed to supporting structure at maximum 600mm centres with steel fixings of a type to suit to the supporting structure.

Studs (size: 74mm x 47mm x 0.6mm thick with 6mm returned edges) shall be positioned within the head and base tracks at maximum 600mm centres and trimmed to allow a 10mm expansion gap at the head. The friction shall be fitted between head and base track sections.

INSULATION

A cavity insulation mineral rock fibre based slab (60mm thick, density minimum 30 kg/m³) shall be used with the friction fitted between the studs.

For insulation a FERMACELL Perimeter strip with mineral rock wool (10mm thick, 1000mm long) shall be used which is clamped by the track section head and base and by the stud fixed along the vertical edge.

BOARDS

FERMACELL gypsum fibre boards shall be fitted in two layers per side and screwed to the framework using FERMACELL dry wall screws (size: 3.9mm x 30mm) at 400mm centres for the inner layers and FERMACELL dry wall screws (size: 3.9mm x 40mm) at 250mm centres for the outer layers. Different joint techniques as described in the manufacturer's manual are allowed. Joints must be closed.

C. Fire resistance performance of up to 120 minutes

C.1 Partition system with a single layer FERMACELL gypsum fibre board (1S33)

FRAMEWORK

Head and base track (size: 75mm x 40mm x 0.6mm thick) shall be fixed to supporting structure at maximum 600mm centres with steel fixings of a type to suit to the supporting structure.



Studs (size: 100mm x 47mm x 0.6mm thick with 6mm returned edges) shall be positioned within the head and base tracks at maximum 1000mm centres and trimmed to allow a 10mm expansion gap at the head. The friction shall be fitted between head and base track sections.

INSULATION

A cavity insulation mineral rock fibre based slab (80mm thick, density minimum 50 kg/m³) shall be used with the friction fitted between the studs.

For insulation a FERMACELL Perimeter strip of mineral rock wool (10mm thick, 1000mm long) shall be used which is clamped by the track section head and base and by the stud fixed along the vertical edge.

BOARDS

FERMACELL gypsum fibre boards shall be fitted in one layer per side and screwed to the framework using FERMACELL dry wall screws (size: 3.9mm x 30mm) at 250mm centres. Different joint techniques as described in the manufacturer's manual are allowed. Joints must be closed.

C.2 Partition system with double layer FERMACELL gypsum fibre board (1S31 and 1S41)

FRAMEWORK

Head and base track (size: 75mm x 40mm x 0.6mm thick) shall be fixed to supporting structure at maximum 600mm centres with steel fixings of a type to suit to the supporting structure.

Studs (size: 74mm x 47mm x 0.6mm thick with 6mm returned edges) shall be positioned within the head and base tracks at maximum 600mm centres and trimmed to allow a 10mm expansion gap at the head. The friction shall be fitted between head and base track sections.

INSULATION

A cavity insulation mineral rock fibre based slab (50mm thick, density minimum 50 kg/m³) shall be used. The friction shall be fitted between the studs.

For insulation a FERMACELL Perimeter strip of mineral rock wool (10mm thick, 1000mm long) shall be used which is clamped by the track section head and base and by the stud fixed along the vertical edge.

BOARDS



FERMACELL gypsum fibre boards shall be fitted in two layers per side and screwed to the framework using FERMACELL dry wall screws (size: 3.9mm x 30mm) at 250mm centres for the inner layers and FERMACELL dry wall screws (size: 3.9mm x 40mm) at 250mm centres for the outer layers. Different joint techniques as described in the manufacturer's manual are allowed. Joints must be closed.



C.3 Shaft-wall

FRAMEWORK

Head and base track (size: 100mm x 60mm x 0.7mm thick) shall be fixed to supporting structure at maximum 600mm centres with steel fixings of a type to suit to the supporting structure.

Studs (size: 98mm x 26mm x 0.7mm thick with a special E track profile) shall be positioned within the head and base tracks at maximum 410mm centres and trimmed to allow a 10mm expansion gap at the head. The friction shall be fitted between head and base track sections.

Intermediate E-studs shall be screwed back to back together using waver head steel screws (size: 13mm long x 4mm diameter) at 300mm centres along with the full height of studs. Intumescent mastic shall be inserted between the studs.

INSULATION

A cavity insulation mineral rock fibre based slab (60mm thick, density minimum 33 kg/m³) shall be used with friction fitted in all voids between the studs.

For insulation a FERMACELL Perimeter strip of mineral rock wool (10mm thick, 1000mm long) shall be used which is clamped by the track section head and base and by the stud fixed along the vertical edge.

BOARDS

For the exposed face FERMACELL gypsum fibre boards shall be used with the friction fit in one layer within the E-studs. All edges shall be bedded on intumescent mastic.

For the unexposed face FERMACELL gypsum fibre boards shall be fitted in two layers and screwed to the framework using FERMACELL dry wall screws (size: 3.9mm x 30mm) at 250mm centres for the inner layer and FERMACELL dry wall screws (size: 3.9mm x 40mm) at 250mm centres for the outer layer. Different joint techniques as described in the manufacturer's manual are allowed. Joints must be closed.

D Modifications

In accordance with the MPA General Requirements for Certification of Fire Protection Products the following modifications to the specifications as detailed previously may be made, whilst maintaining the certification:

- The height of the construction may be decreased
- The thickness of the construction may be increased
- The thickness of component materials may be increased
- The linear dimensions of boards together with the size of insulation (but not both thicknesses) may be decreased
- The spacing of studs may be decreased
- The distance of fixing centres may be decreased
- The density of the insulation may be increased



----- End of the certificate -----