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HDP BOARD - DRYWALL PARTITION SYSTEM TECHNICAL SPECIFICATION



PLASTERCEIL INDUSTRIES PTE LTD

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HDP BOARD DRYWALL PARTITION

PART 1 GENERAL

1.1 DESCRIPTION

The drywall shall consist of one layer of HDP Board of each side, secured to galvanized steel studs and tracks, with in between boards infill with mineral wool. The HDP Boards are manufactured from high grade Alpha gypsum with glass-fibre reinforcement.

TEST REFERENCES

- A. BS 5234 Part 2 : 1992 - Standard Test Method To Determine The Resistance To Damage Of Partition System.
- B. BS 476 Part 22 : 1987 - Standard Test Method For Determination Of The Fire Resistance of Non-Loadbearing Partition.
- C. BS 476 Part 4 : 1970 - Standard Test Method On Building Materials And Structures – Non-Combustibility Test For Materials.
- D. ASTM E413 – 87 - Standard Test Method Of Airborne Sound Transmission Loss Of building Partition.

1.2 SUBMITTALS

- A. Product Data: Manufacturer's data sheets on each product to be used, including dimensions, finishes, storage and handling requirements and recommendations, and installation recommendation.
- B. Shop Drawings: Provide drawings showing dimensions, layout, joints, details, and interface with adjacent work; include field measured dimensions of the spaces where items are to be installed, if critical to proper installation.
- C. Samples: Representing actual product, color, and patterns.

1.3 DELIVERY, STORAGE AND HANDLING

- A. Transport, lift, and handle units with care, avoiding excessive stress and preventing damage; use appropriate equipment.
- B. Store products in manufacturer's unopened packaging until ready for installation, in a clean dry area protected from weather, moisture and damage; store units upright and not stacked unless permitted by manufacturer.
- C. Care should be taken when handling the blocks to avoid scratching faces and chipping edges.



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PART 2 PRODUCTS

2.1 MANUFACTURER/SUPPLIER

- A. Acceptable Manufacturer – Shanghai Peising Materials Industrial Co.
- B. Supplier - Plasterceil Industries Pte Ltd
No. 16 Sungei Kadut Street 6 Singapore 728861
Email: enquiry@plasterceil.com www.plasterceil.com
- C. Substitutions - Not permitted.

2.2 MATERIALS

- A. *plastec* HPD Board are manufactured from high grade Alpha gypsum plaster with short glass-fibre strand reinforcement. With Impact resistance smooth surface and slightly texture on the reverse.
 - 1. Dimension : 16mm Thick Board of Length 2200mm and Width 1200mm.
 - 2. Weight : 20kg/m² of 16mm thick
 - 3. Fire resistance : Non-Combustible to BS 476 : Part 4 1970.
- B. *plastec* Galvansied Steel Studs – channel type and cold roll formed from hot-dipped galvanized steel ribbons.
 - 1. Dimension : Studs - 68mm x 35mm.
Track - 68mm x 30mm.
 - 2. Thickness : 0.5mm for Non-fire rated system.
0.8mm for 2hr fire rated system.
 - 3. Rust Protection : Zinc Coating (Hot-dipped).
 - 4. Surface : Knurling on both ends, dimpled surface.
- C. Mineral wool of 50mm thick with density of 60kg/m³, size 600mm x 1200mm.

2.3 DESIGNED SYSTEM

HDP Board Drywall Partition System is a latest Impact Resistance system plasterboard lining, which is designed to satisfy regulatory requirements for severe duty application.

A. Application

Internal lining for commercial, industrial, institutional and residential application.

B. Composition

System consists of gypsum board, galvanized steel studs, mineral wool.



C. Size

Board In thickness of 16mm
Length 2200mm
Width 1200mm

Galvanised Steel 0.5mm(non-fire rated)
0.8mm(2hrs fire rated)
Studs 68mm x 35mm
Track 68mm x 30mm

D. Weight

40kg/m² of 100mm thick wall

E. Impact Performance

HDP Board Drywall Partition System has achieved Severe Duty Grade when tested to BS 5234 Part 2 : 1992 – specification for performance requirements for strength and robustness including method of tests.

F. Fire Performance

HDP Board Drywall Partition System has a Two hours fire rating as tested in accordance to BS 476 Part 2 : 1987. The gypsum board is classified as non-combustible when tested in accordance to BS 476 Part 4 : 1970.

G. Acoustic Performance

HDP Board Drywall Partition System has a Acoustic rating of 46dB

PART 3 INSTALLATION

3.1 PREPARATION

- A. Partition layout should be marked accurately, checking individual measurements against overall dimension.
- B. Installation site should be kept dry and in an enclosed shelter.

3.2 INSTALLATION

Partition Framing Installation

- A. Tracks (bottom and top track) should be fastened to structural elements at 50mm in from each ends of the track and spaced at 600mm center to center with suitable masonry fastener (eg. Drive pin, nylon anchor or expansion anchor).
- B. Position studs vertically with open sides facing the same direction, engaging the tracks and spaced at 600mm center to center.



- C. Studs are not to be fastened to top and bottom tracks.
- D. Cavity Insulation – Install 50mm thick mineral wool with density of 60kg/m³ in wall cavity, cut neatly between studs to ensure no gaps and/or crushing of the insulation.

HDP Board Installation

- A. Check partition framing to ensure that it is plump, level and square and in true alignment before installation of boards. HDP Board are always installed vertically.
- B. First side – screw fasten HDP Board vertically to studs at edges only, centering abutting edges on studs flanges. Boards should be installed by advancing in the direction opposite to the stud flange direction.
- C. Second side – Screw fasten this board and all subsequent full width boards to all studs.
Note : Make sure all M&E services or other material is in place in the partition before covering.
- D. Jointing System – Joint compound to be use for all jointing with self adhesive fire tape.

3.3 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION



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