

# Dry Internal Partition Walls for Quality Homes



# Why use Dry Internal Partition Walls?



Advanced dry partition wall has emerged as the new focus to modern technology in homes. The major developers have led the industry into using dry partition walls between rooms in their residential projects.

The constant improvement in performance for plasterboard to suit the use in residential projects has ensured that such wall system now meets high level specifications in the areas of acoustic insulation, thermal insulation and resistance to fire and damp conditions.

Besides meeting statutory functional requirements such as fire ratings, the heavy duty drywalls are able to resist high impact and support loads such as televisions and cabinets.

Performance-wise, the system is suitable for severe duty usage, having passed the strength and robustness tests such as: Stiffness, Door Slam, Impact, Heavyweight

Anchorage tests, in accordance to Singapore Standard SS492:2001.

High performance drywalls are tested to severe duty standards in strength and able to withstand minimum loading of 25 kg at each point.

The fire rating for the board is about 1 hour which satisfies the fire safety requirement for residential buildings.

Despite the “heavy duty” label, the drywalls are lightweight (about 10-15% the weight of conventional brickwalls); allowing designers to adopt lighter structures, which results in savings in foundations cost.

The drywall system is slimmer than conventional brickwalls, thus creating more usable space for the rooms.

# How is the system being installed?



Install metal studs



Install plasterboard to one side



Install M&E services



Install rockwool



Install second plasterboard



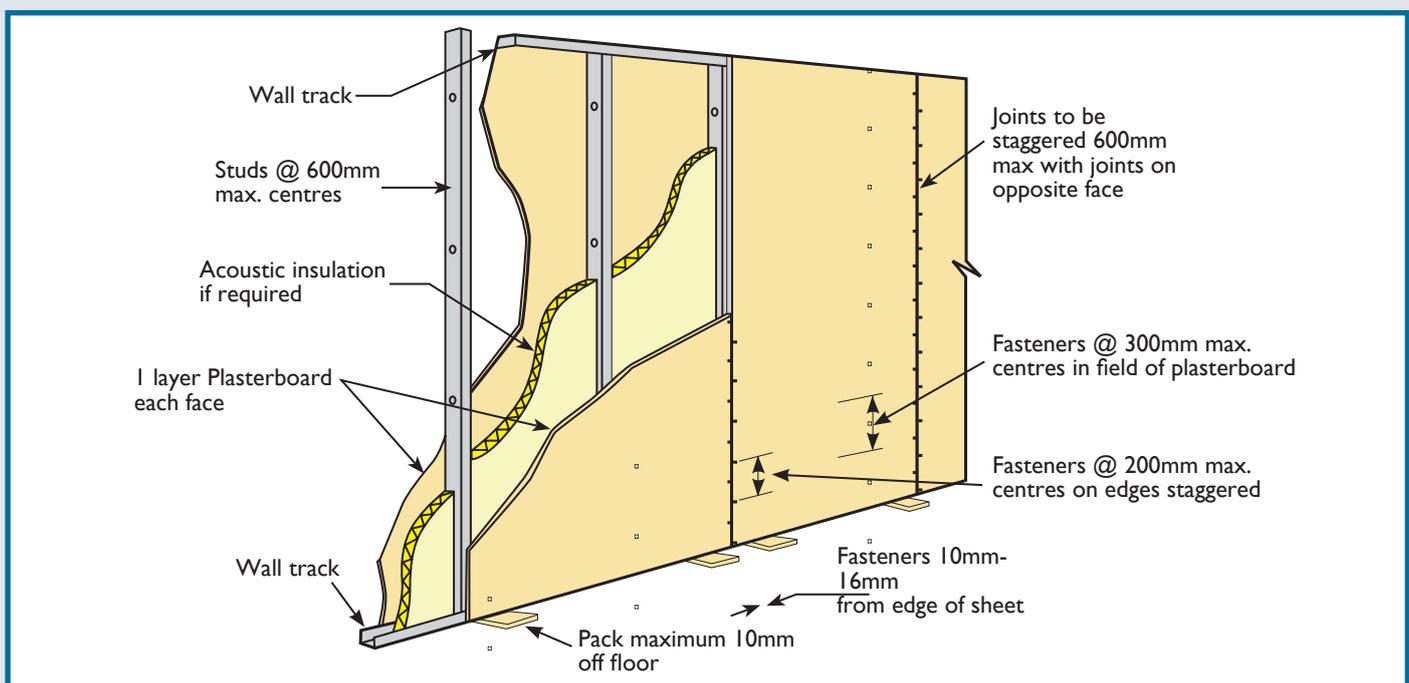
Apply paint and install fixtures to walls

The ease of installation of mechanical and electrical (M&E) services within the boards will reduce the noise pollution that may be created with the hacking of brick walls to embed the services, providing a cleaner and environmentally friendly site.

The drywall system can be easily installed and quickly relocated according to one's needs. Homeowners can renovate and redesign the interior layouts within a short time, There is no messy hacking of concrete or bricks and no debris to the environment.

The use of this system also facilitates dry construction that does not require for messy plastering as its smooth and even surfaces are ready to receive paint finishes directly. Without the use of plastering, it would eliminate the possible defects arising from low standard of workmanship.

Such advantages have led developers to use drywalls for various developments, including good class residential projects.



# How is the Acoustic Performance?



There are different types of drywall systems available in the market that offer a wide range of fire resistance and acoustic ratings to meet design requirements.

The acoustic performance of the drywalls can be enhanced with the installation of rockwool between the boards.

Sound Transmission Class (or STC) is used to rate interior partitions, ceiling/floors, doors, window and exterior wall configurations. STC is the decibel reduction in noise a partition can provide. The higher the STC value, the better is the acoustic performance.

Interior walls with bricks or concrete walls have STC of about 40, which is considered as “onset of privacy”, suitable within the residential units. The lightweight and dry partition walls have an STC of about 33 without any insulation. Adding insulation like rockwool in the wall cavity would increase the STC to between 45 - 50. Hence, unlike brick or concrete walls where the STC is limited to the choice of material, the dry partition walls have the ability to improve on the sound transmission loss by increasing the space and insulation between the boards to yield an STC of as high as 63.

STC 25	Normal speech can be heard easily
STC 30	Loud speech can be heard
STC 35	Loud speech can be heard, but not understood
STC 42	Loud speech can be heard only as a murmur
STC 45	Must strain to hear loud speech
STC 48	Only some loud speech can be heard
STC 53	Loud speech cannot be heard

Users are to request for test reports from the wall suppliers on strength, sound transmission and fire test conducted by accredited laboratory.

# Can Drywall support fixtures?



For light and medium duty anchor for fixtures such as mirrors, light fitting or picture frames on drywalls, simply use screwdriver to insert and tighten the screw until secure. There is no need for hammer drills to make holes in concrete or brick and no unsightly chunks of concrete or brick breaking out through imprecise workmanship.

The drywall system is also able to support heavy fixture such as large wall cupboards and heavy wall cabinets, but homeowners are advised to get contractors to carry out the installation work with proper heavy duty anchors.

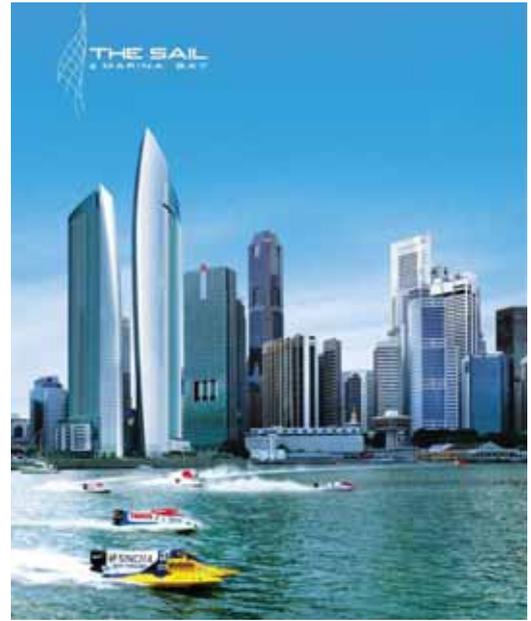
Developers like City Developments Limited, Capitaland Residential Limited, Far East Organization and World Class Land have adopted high performance drywall system instead of conventional brick walls in their recent projects, due to its quality and sustainability.



# List of residential projects using dry wall system



St Regis Residences & Hotel



The Sail@Marina Bay



Residences@Evelyn



The Pier@Robertson



Savannah CondoPark



Coastarina



Parc Emily



Central



Butterworth 33



City Square Residences



Citylights

## Suppliers for the drywall system:

Boral Plasterboard (M) Sdn Bhd  
Singapore Branch  
Tel: 62729272  
Fax: 62785310

USG-Powerscape,  
Pacific Interiors Supply Pte Ltd  
Tel: 62686180  
Fax: 62686192

BPB, Saint-Gobain (Singapore) Ltd  
Tel: 63342636  
Fax: 63345325

5 Maxwell Road  
#16-00 Tower Block MND Complex  
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Tel: +65 6325 7720  
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Website: [www.bca.gov.sg](http://www.bca.gov.sg)



We shape a **safe**, **high quality**, **sustainable** and **friendly** built environment