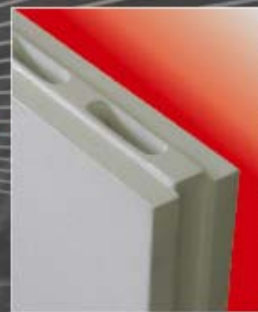


**plastec**  
LIGHT WEIGHT BLOCK



**plastec** GRG light weight block consist of Alpha grade gypsum, alkaline resistance glass fibres, fine sand and approved silicon based additive for water resistance properties. Using the German Advance Technology, the moulding of blocks by injection done under stringent controls, ensure excellent quality and consistency.

The **plastec** GRG light weight block have two smooth surfaces. Each block is moulded with two tongue and groove sides, to enable them to be fitted perfectly together during assembly. **plastec** GRG light weight block are light, simple and faster to build and it also provide an quality smooth finishing without the need of sand plastering.

Its durability, robustity and rigidity is proven after all stringent test accordance to Bristish Standard.

## Product Properties



### FIRE-RESISTANCE

Under fire resistance test to BS476 Part 22:1987, **plastec** GRG light weight block achieved a fire rated of 4 hours. It is also non-combustible test under BS 476 : Part 4.



### LIGHT-WEIGHT

**plastec** GRG light weight block weighs only 16kg per block which is only 64kg/m<sup>2</sup> for a 100mm thick wall. Ideal for building in which design engineer can reduce the thickness of concrete slab.



### MOISTURE-RESISTANCE

**plastec** GRG light weight block have a very low water absorption capacity at a movement of 5% after 2 hours total immersion in water. It can be use in wet areas and high humidity areas like toilets.



### SOUND INSULATION

Sound insulation is another consideration for quality wall system. **plastec** GRG light weight block tested accordance to ASTM E413-87 and have actual sound transmission class of STC 38 and STC 40 with insulation.



### STRENGTH & ROBUSTNESS

**plastec** GRG light weight block wall system had undergone Strength & Robustness test in accordance to BS : 5234 Part 2 : 1992 and passed the severe duty grade. It had also obtained excellent results through crowd pressure and weight anchorage test.



### PRODUCTIVITY

**plastec** GRG light weight block wall system are easier, faster and need less labour to build, compare to conventional brickwall. It does not require cement and sand for plastering and hence reduce messy site and wet trade.



Concealed M & E Services and ducting running through **plastec** light weight block wall. Blocks can be cut, drilled, sawn, milled or chiseled on the job.



M & E can be easily concealed in **plastec** light weight block wall.



1 pair of semi-detached house at Tavistock. External and internal walls.



Marina Square toilet  
Wall tiles is easily installed with normal tile adhesive. Wall hung basin and urinal fix on **plastec** light weight block.



Marina Square fire escape corridor. Its smooth, straight and evenness proved it to be an excellent product for a 4 hours fire rated block.



2 Storey Factory at Sungei Kadut. External and internal wall system.



Singapore History Museum  
**plastec** light weight blocks can be tilted to achieve a curve wall and still maintaining its strength and rigidity.



Majestic Hotel with **plastec** light weight block wall system.(with insulation)

## Working Method & Detail

**Step 1**



Mark out the position of wall on the floor and intersecting walls. Mixing of GRG adhesive compound is applied by using a board knife or trowel onto the floor and all leading edges of the GRG block.

**Step 2**



Set the first block in place with the grooved edges facing downwards and adjacent to the intersecting walls using GRG adhesive compound on the joint.

**Step 3**



A metal strap to assist fixing to an existing column or wall at every alternate course is recommended. Explosive fasteners are used to secure the metal strap.

**Step 4**



Start alternative courses with half block so as to have bonded staggered joint. As each block is set into position, it is then tapped with a rubber mallet to ensure a tight joint.

**Step 5**



**plastec** light weight block wall can be continuously laid till the ceiling and ready for final skim coat.

**Step 6**



On completing of erection of wall, flush all wall surface to a smooth finish by applying a skim coat with steel trowel. Skim coat can be applied immediately upon completion of wall.

**Step 7**



Corner bead is being installed for better finishes and to protect corners from being chip off by impact.

**Step 8**



**plastec** light weight block wall completed and is ready to receive finishes. i.e. painting or wall tiling.

# GRG LIGHT WEIGHT BLOCK - TEST CONDUCTED & PERFORMANCES REPORT

Strength & Robustness Test Conducted at PSB in accordance to British Standard 5234 : Part 2 : 1992

## Tests for grade compliance

Requirements tested	Grade performance achieved				Test Simulation
	LD	MD	HD	Pass / Fail SD	
Stiffness	-	-	-	Passed	Bending caused by people leaning on, or person on ladder leaning against partition wall.
Surfaced damaged by small hard body impact:	-	-	-	Tested*	Impact caused by sharp or pointed objects, such as trolleys and wheelchairs.
Perforation by small hard body impact:	-	-	-	Tested*	Impact caused by sharp or pointed objects, such as trolleys and wheelchairs.
Surface damaged by large soft body impact:	-	-	-	Passed	Impact caused people falling against partition wall.
Resistance to structural damage small hard body impact:	-	-	-	Passed	Impact caused by sharp or pointed objects, such as trolleys and wheelchairs.
Door Slamming	-	-	-	Passed	Door slams caused by wind, or people closing a door energetically.

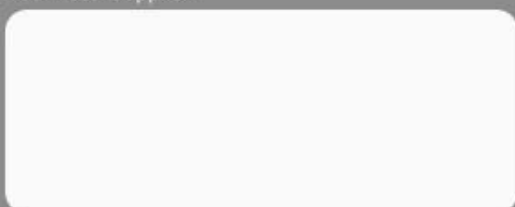
## Test on partition specimen

Requirements tested	Performance achieved	Test Simulation
Crowd pressure	3 kN/M	loads caused by a crowd leaning against the partition wall
Light weight anchorage - Pull-out Light weight anchorage - Pull-down	Passed Passed	loadings from lightweight, fixtures such as wall pictures, clothing hooks, basic wall shelving.
Heavy weight anchorage- (Wash basin)	1500 N	loadings from heavyweight fittings such as wall cupboards, wash basins, water closets.
Heavy weight anchorage- (Wall cupboard)	4000 N	

## TECHNICAL SPECIFICATION

Description	Properties & Performances
Weight	16kg per block / 64kg/m <sup>2</sup>
Size	660 Length x 375 Height x 100 mm THK
Productivity	25-30m <sup>2</sup> / man day (Includes installation & joint treatment)
Non-combustibility British Standard 476 : Part 4	Pass
Fire Rating British Standard 476 : Part 22	4 hours
Sound Insulation (STC)	38 dB / 40 dB (With insulation)
Usage in wet areas	Yes
On site installation of concealed wiring, ducting & pipework	<ul style="list-style-type: none"> <li>Services can be run through wall cell (35mm) during installation of wall</li> <li>Wall surface can be chased for services after wall installation</li> </ul>
Surface Appearances	Smooth
Applied Finishes Tiling	Yes
Joint Treatment Panels	Joint compound is applied between abutting
Fasteners Types	Plastic ramplugs/ threaded galvanised screw

Your Local Supplier:



CERT NO : C115503  
EN ISO 9001 : 2000



CERT NO : 02-2-8456  
ISO 9001 : 2000

 **PLASTERCEIL**  
Industries Pte Ltd

No. 16 Sungei Kadut Street 6  
Singapore 728861  
Tel: 6368 1233 Fax: 6368 0796  
Website: www.plasterceil.com