



BUILDING WITH L.W. PANELS

BETTER PRODUCT FOR A BETTER FUTURE

➤ LW PANELS

- LW Panels for interior and exterior walls and partitions.
- The LW Panel is composed of a 6mm fiber cement board facing with a core of concrete and EPS (Expanded Polystyrene).
- Each panel is 1.8 m² (3m x 0.6m) with thickness options of 75mm, 100mm, 150mm & 200 mm.
- Tongue and groove profiles to interlock each panel



➤ **ADVANTAGES**



Energy-saving
Eco-friendly



Fireproof
(Class A1)



Anti-pressure
Anti-quake
Anti-impact



Waterproof
Wetproof



Sound
Insulation



Easy & Fast
Installation



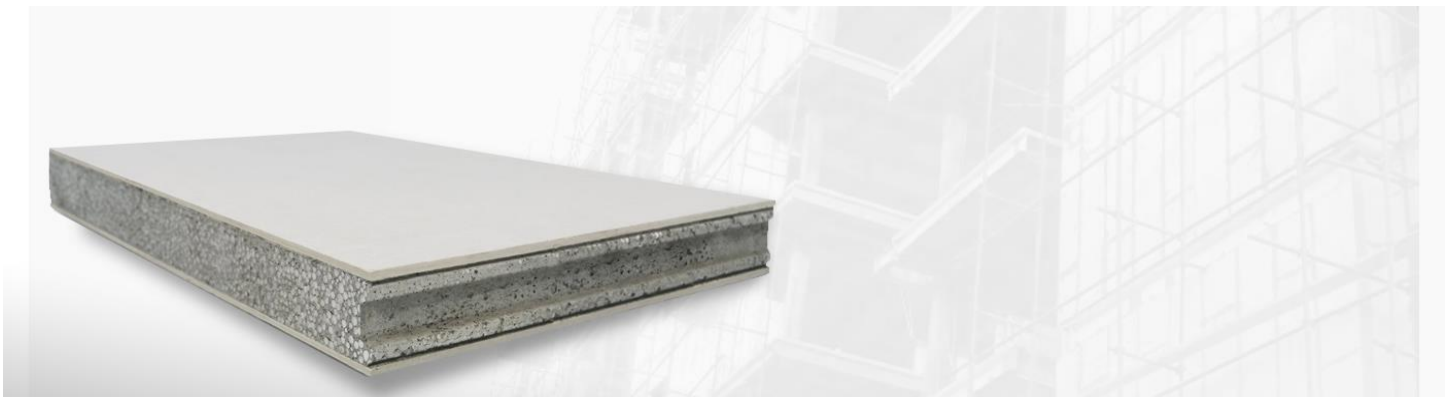
Heat Insulation
& Preservation



Lightweight
Economy



Non-toxic
Asbestos-free



➤ TECHNICAL DATA SHEET.

- **Panels Specification.**

Maximum Panel Width	600 mm
Maximum Panel Height	3000 mm
Panel thickness Covered	75 mm, 100 mm, 150 mm, 200 mm
Minimum Density (Fiber Cement Barthians 6 mm)	1200 Kg/m³
Minimum Density (Core)	521 Kg/m³

Thickness	200 mm	150 mm	100 mm	75 mm
Weight Kg/M2	120 Kg / M ²	90 Kg / M ²	63 Kg / M ²	54 Kg / M ²
Typical Tolerance	± 5 Kg/M ²	± 5 Kg/M ²	± 5 Kg/M ²	± 5 Kg/M ²
Axial Load Bearing	–	142.83 KN/Panel	104.28 KN/Panel	–
Bending	8.2 KN/M	6.6 KN/M	5 KN/M	3.3 KN/M
Sound Transmission (STC)	52 dB	46 dB	43 dB	39 dB
Airborne transmission loss through panel	STC 52 dB	STC 46 dB	STC 43 dB	STC 39 dB
Fire resistance (Rating)	7.5 Hours	4 Hours	3 Hours	2 Hours
Thermal resistance (R)	2.718 W/M ² K	2.048 W/M ² K	–	–
Thermal transmission Value(U)	0.369 W/M ² K	0.488 W/M ² K	–	–



Lightweight
Building Factory

75 mm, 100 mm, 150 mm and 200 mm Panels	
Fire Propagation	Meets requirements
Surface Spread of flame	Class1: Approved for use in areas where walls or partitions having surface spread of flame rating of class 0 or lower are required
Smoke Emission & toxic gas distillation	None recorded
Combustibility	Deemed non- combustible
Water Penetrability	No evidence of water penetration
Strength & Robustness	
Partition Stiffness	
* Small hard body impact 6 Nm	No Cracking, detachment
* Small hard body impact 15Nm	No Cracking, breakage
* Large soft body impact 40 Nm & 12 Nm	No Surface or Structural damage
* Door slamming	No visible cracks
* Crowd pressure 2 KN/M	No damage
* Pullout 100 N	Retained
* Pulldown 250 N	Retained
* Heavy weight anchorage pull-down 3 KN/M	Retained
Anchor test - Pullout Test	KN 4.35
Shear Test	KN 7.40
Wall Height - non-Load Bearing	Up to 4200 mm high Fire and non-fire rated
Standard Panel Length	3000 mmm
Standard Panel Width	600 mm

➤ **INSTALLATION**

1- Fix U channel to floor & ceiling.



2- Place the panel on U channel
& slide into position.



3- Apply adhesive to the mating surfaces and slide the next panel into position.

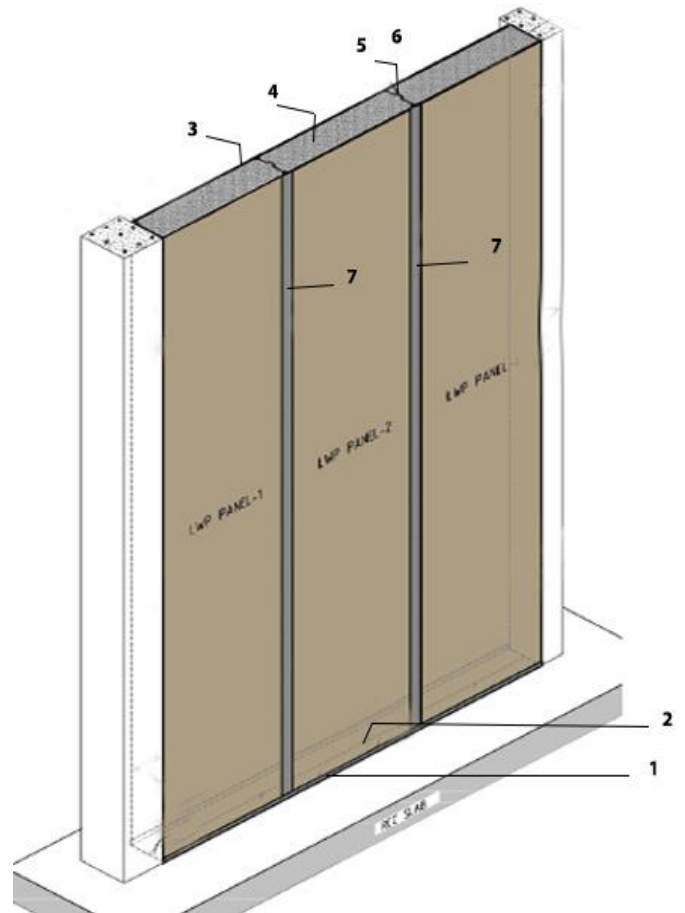


4- Fiber Tape Panel joints and fill & The Panels are ready to be painted.

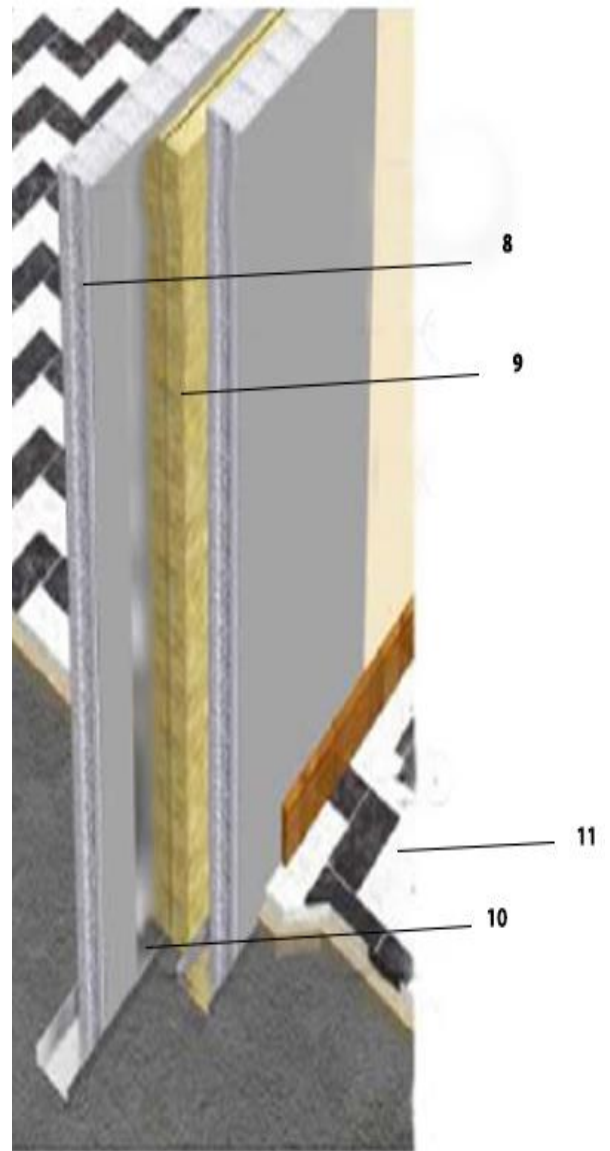
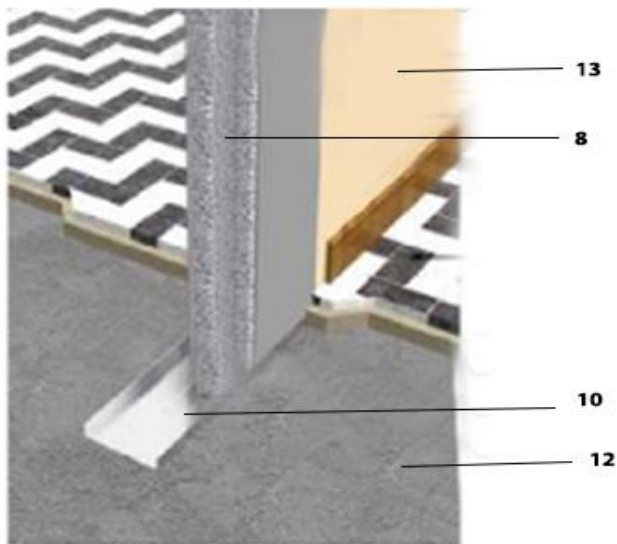


➤ DETAILED VIEW

1. Galvanized U Channel
2. Direct fastening nails 20mm long, spaced at every 500 mm.
3. 6mm thick fiber cement board.
4. EPS with regular Portland cement.
5. LWBF Panels multibond PVA.
6. LWBF Panels jointing compound.
7. Boral jointing tape & Boral premium premix finish.



- 8. Light weight panel.
- 9. Rockwool / glass fiber insulation board.
- 10. Galvanized U Channel
- 11. Wall finish as per finishing schedule.
- 12. R.C.C slab.
- 13. Wall finish as per schedule.



➤ PRODUCT SPECIFICATION COMPARISON

	LW Panels	Hollow Block Plaster Finished	AAC Block
Compressive Strength - Wall Section (N/mm ²)	5.5	1.3 - 3.5	3.0 - 4.0
Direct Pullout (N)	1800 - 2000	Up to 710	Up to 320
Density (Kg/m ³)	550 - 560	1400 - 1900	400 - 1000
U Value	0.369	2.3 - 2.8	0.3 - 0.4
Fire Rating	2 – 7.5 Hours	Varies	0-4 hours
STC Rating	39 - 52	up to 46	up to 39
Joint Capacity (KN-m)	2.53 - 4.66	2 – 2.5	2 – 2.5
Panel Moment Capacity	1.99 - 2.96	N/A	N/A
Panel Moment Capacity (side) (KN-m)	5.58 - 7.15	N/A	N/A
Axial Load Capacity (KN/m)	173.8 - 283	N/A	N/A
Plaster Requirement	Not Required	Required	Required
Wet Areas	Acceptable	Acceptable	Acceptable

➤ TIME COMPARISON

- A comparison of time taken to build a finished wall (2 sides of plaster) ready to paint on both sides.
 - Wall Area = 16sqm (as per BS 5628-1:2005).
 - Length = 4.5.
 - Height = 3.5m.
 - 2-Point Lateral Support, 1 Existing & 1 to Be Installed By Contractor.

- No Fire Proofing.

LW Panels 3000 x 600 x 150 (h x l x w) Team of 6 skilled laborers		Blocks 200 x 400 x 150 (h x l x w) Team of 5 bricklayers and 2 plasterers	
Step	Time	Step	Time
Location marking	0.5 hr.	Location marking	0.5 hr.
Bottom and top track cutting and setting	1.0 hr.	Mortar mixing and setting out	1.0 hr.
Install first panel with dowel bars	0.5 hr.	Block laying	48 hrs.
Installation of horizontal panels	1.0 hr.	Curing time	24 hrs.
Closing of head track	0.25 hr.	Manual plastering	5 hrs.
Wind post measurement and fixing	0.5 hr.		
Closing of joints	1.0 hr.	<i>Note: Block work walls cannot be built higher the 6 courses without the mortar setting i.e. 24hours</i> <i>Rigid scaffolding is required to be fixed for block work at 1.5m height.</i> <i>LWBF assumes the scaffolding and the first 6 courses can be done in 24 hours.</i>	
Curing time	24 hrs.		
Finishing of joints	1.0 hrs.		
<i>Note: Panels only require mobile scaffolding and not restricted by height</i>			
Total Time	29.75 hrs.		78.5 hrs.



➤ **PROJECT PHOTOS**
On house, villa & apartment.



Hospital & hotel.

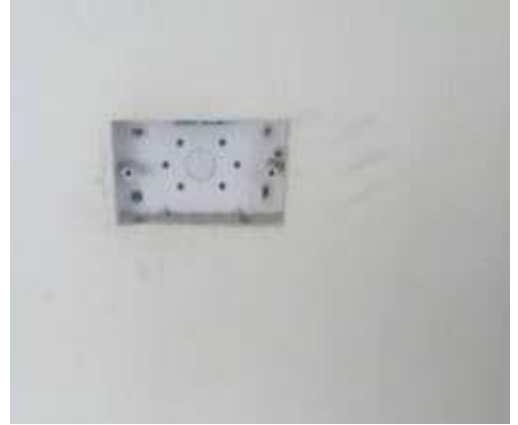




Store & market.



➤ **Cutting&ChasingforServices**





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