

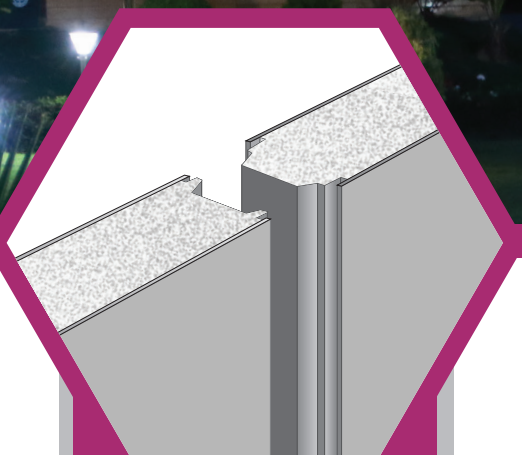
# Fast-track, Light-weight Dry-wall Construction



## Key Applications:

- Full & Half-height Partitions
- Mezzanine Floors
- Prefab Structures
- Boundary Walls/Fins
- Cladding

**BIRLA**  
**AEROCON**  
SOLID WALL PANELS



**FAST TRACK**  
**DRY WALL**





**HIL** is part of the **CK Birla Group**, a growing US \$1.6 billion conglomerate that has a history of enduring relationships with renowned global companies. With over 20,000 employees, 24 manufacturing facilities and numerous patents and awards, the group's businesses are present across five continents.

We operate in three industry clusters: technology and automotive, home and building, healthcare and education. Our companies are strengthened by common ownership and shared guiding principles that include a focus on long-term value, trust-based relationships and philanthropy. Each business is transforming to build on the collective strength and synergies of the group's size and span.

**Revolutionising Construction:** \_\_\_\_\_

Our unique, ready-to-install Birla Aerocon solid wall panels are poised to revolutionise building construction, taking it to a whole new level. They are sandwich panels, made of two Fibre Reinforced Cement facing sheets, on either sides of a lightweight concrete core. The core is made from a mix of Portland cement and binders.

Apart from being fully cured at the factory itself, Birla Aerocon's solid wall panels have a tongue and groove jointing system that facilitates rapid construction with minimum effort.

Holding patents in 7 countries, Birla Aerocon solid wall panels is an ideal solution for dry walls and partitions. This innovative green product, certified by the IGBC and GRIHA, stems from our commitment to create greener buildings, for a greener planet.

**Type of Application:** \_\_\_\_\_

<b>PARTITIONS</b>	- Offices, malls, educational institutions, hotels/restaurants, housing residential, Govt./defence, industrial & infrastructure, textile units
<b>PREFAB STRUCTURES</b>	- Accommodation units, site offices, security & store rooms, warehouse/go-downs, schools, army barracks, low-cost housing
<b>MEZZANINE FLOORING</b>	- Industrial/SEZ, warehouse/go-downs, storerooms, shopping malls, Govt./defence, etc.
<b>CLADDING</b>	- Shopping malls, school/college/university, duct covering, site offices & administration offices
<b>BOUNDARY/FENCING</b>	- Residential, commercial, Govt./defence, etc.
<b>FIRE SEPARATION WALLS</b>	- Shopping malls, hotels, stair case enclosures

**Birla Aerocon Benefits:** \_\_\_\_\_

Birla Aerocon Solid Wall Panels has a 6-S list of features and benefits that complements its superior qualities.



**Savings** \_\_\_\_\_

- Cost: Light-weight, therefore results in structural savings up to 20%
- Time: 10-20 times faster to construct
- Labour: Pre-cured and ready-to-use, therefore eliminates on-site curing

**Strength** \_\_\_\_\_

- Long-lasting: Cement-based panels
- High axial compression and bending strength: Can build load-bearing structures

**Services** \_\_\_\_\_

- Support: Design and BOQ
- Training: Regularly conducted on the use of Birla Aerocon Solid Wall Panels
- Feedback: Site visits and feedback on the Birla Aerocon Solid Wall Panels work

**Space** \_\_\_\_\_

- Thinner walls: Provides additional carpet area, up to 5%

**Sustainable** \_\_\_\_\_

- Save resources: Cement and sand are not required
- Reusable: The unique tongue & groove joint makes it easy to uninstall
- Eco-friendly: Use of fly ash

**Safe** \_\_\_\_\_

- Fire: Highly resistant
- Weather: Can withstand adverse conditions
- Termite and water-resistant: Doesn't permit the growth of bacteria and fungus
- Toxic emissions: None



Light-weight



Water-resistant



Fire-resistant



Termite-resistant



Strong and Durable



Sound Insulation



Space Saving



Eco-friendly



Reliance Petroleum Ltd.  
(Staff Accommodation)  
Mothikhavadi, Jamnagar, Gujarat

Birla Aerocon prefab structures are sturdy even in cyclonic and seismic zones. A structural study and analysis of the Birla Aerocon prefab structures in the aftermath of an earthquake, proved that they are of high strength and stability, their light weight generates minimal inertia force, their tongue and groove system permits adjustments for shock absorption and their steel angles provide sufficient ductility at the junction. In addition, their fire and moisture-resistant properties make them hardy survivors of climatic and accidental disasters. The Reliance Petroleum structures in Jamnagar, Gujarat, withstood the fury of the massive cyclone that hit in 1998. Again, when Gujarat bore the brunt of the killer quake in 2001, the Reliance Petroleum structure and the Gujarat Customs cabin, both built with Birla Aerocon solid Wall panels, remained unscathed.



Applications of Birla Aerocon Solid Wall Panels: \_\_\_\_\_



Pre-fabricated Structures



Partitions



Mezzanine Flooring



Boundary Wall

Technical Specifications: \_\_\_\_\_

Properties	Thickness		Remarks
	50 Mm	75 Mm	
Weight (nom) per sq. m. (Kgs)	39	54	Nominal weight@
Axial load/meter width (KN/m)	53	83	Factor of safety – 2.5
Bending test (4 point UDL) uniformly distributed load			
(Kg/m <sup>2</sup> )			
2.9 m span	66	95	Factor of safety – 2.5
1.5 m span	198	265	
Flexural strength/modulus of rupture (Kg/cm <sup>2</sup> )	67	58	Typical test results
Thermal conductivity (w/M Deg. K)	0.22	0.21	BS 4370–Part 2
Sound transmission co-efficient (db)			
(Typical test results of Prasar Bharati and National Physical Laboratories)	33	36	IS: 9901 (Part III) – 1981 IS: 11050 (Part I) – 1981
Fire rating (minutes)*	60	120	BS 476 Part 20–22
Surface spread of flame*	Class I		BS 476 Part 7 – 1971
Fire propagation index (I)*	3.7		BS 476 Part 6 – 1981
Ignitability*	Class ‘P’		BS 476 Part 5 – 1968
	(not easily ignitable)		
Standard Sizes:			
Length	2.4m, 2.7m, 3.0m		
Width	600mm		

Note:  
The above specifications are based on typical test results of Birla Aerocon Solid Wall Panels with Flex-o-Board, and are subject to revision.  
\*As per test results of CBRI, Roorkee. Could vary due to change in moisture content.

Birla Aerocon Solid Wall Panels Installation: \_\_\_\_\_



Steps:

1. Fix ceiling and floor channels
2. Erect the panel and align
3. Apply jointing material in tongue & groove joint
4. Apply jointing material and fibre mesh tape to the surface joint
5. Now, the surface is ready for any finish including paint, tiles, wallpaper, texture, etc.



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