



CELBLOC

Cellular Lightweight Concrete
(CLC) Blocks

CELBLOCs are made of Cellular Light weight concrete (CLC) or Foam Concrete. Cellular Light Weight Concrete (CLC) is a light weight concrete that is produced by mixing cement, sand and flyash slurry with pre-formed foam.

CLC blocks are lightweight universal blocks of different sizes which are superior replacement of conventional concrete blocks for residential and commercial buildings. They offer numerous advantages over conventional blocks offering greater economy and quality.



Features



Light in Weight

The density of CLC blocks vary from 600 to 1200 Kg/cum. This is almost three times less than the traditional clay bricks or flyash bricks.



Reduced Construction Cost

The overall dead load of structure is decreased when CLC Blocks are used, by optimizing the design, economy can be achieved on major construction materials.



Eco friendly

CLC Blocks are made of material such as fly ash and other industrial wastes. The production process don't release any harmful effluents that affects environment.



Lower Water Absorption

Due to the presence of air pockets which are not interconnected, the water absorption of CLC Blocks is relatively lower than any other materials.



Sound and Thermal Insulation

CLC Blocks are excellent for both Sound insulation and Heat Insulation. This decreases the energy spent on heating and cooling.



Fire Protection

CLC Blocks give great fire protection. It offers fire endurance for heat transmission for 4 hours without releasing toxic fumes.



Ease to Handling

Due to its less weight CLC Blocks are easy to handle and install, thus minimizing the construction costs.



Dimentional Accuracy

Wire cutting technology leads to higher dimentional accuracy and excellent finish of the blocks. Makes them easier to handle and install.

Studies and analysis have shown that the CLC Blocks have a desirable strength and are an excellent construction material for the modern building system. The strength of foam lightweight concrete is low for lower density mixture. They offers a significant reduction in the overall weight of structural frames, footing or piles and provide rapid and relatively simple construction. The density of concrete is reduced due to the introduction of voids throughout the sample caused by the foam and hence the decrease in the compressive strength of the concrete. It offers quick and settlement-free construction with good heat, sound insulation and air content. CLC Blocks have good thermal insulation; good freeze/thawing properties and has excellent fire resistance properties. For these reasons they have worldwide acceptance.

Application

- x Commercial and Residential buildings
- x Highrise construction
- x Acoustic construction
- x Green construction
- x Non-load bearing walls
- x Partition walls in frame structure.
- x Additional floors to existing structure
- x Temperature controlled buildings
- x Low cost housing

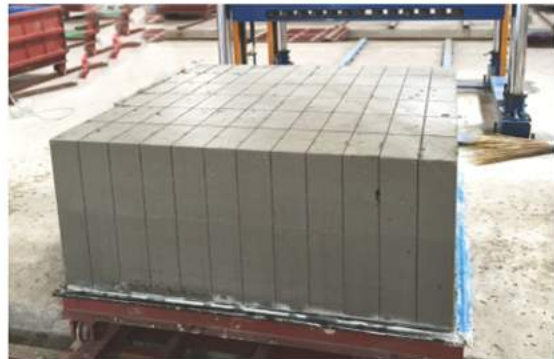


CONSTRUCTION MEETS
TECHNOLOGY

We produce a comprehensive range of building materials and masonry blocks compliant to latest technical and environmental standards for use in foundation walls, internal walls, acoustic separating walls, thermally insulating walls and external walls.

We are continuously striving to enhance the sustainability credentials of our operations and products through the increased use of recycled materials and are committed to minimise impact on the environment by reducing carbon footprint.

Manufacturing Facility, Islamabad, Pakistan



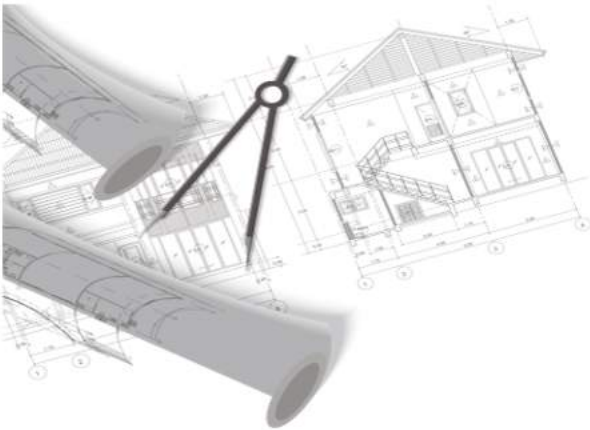
PLANT CAPACITY
02 Million Blocks/year



**STATE OF THE ART
MANUFACTURING PLANT**

Design Flexibility

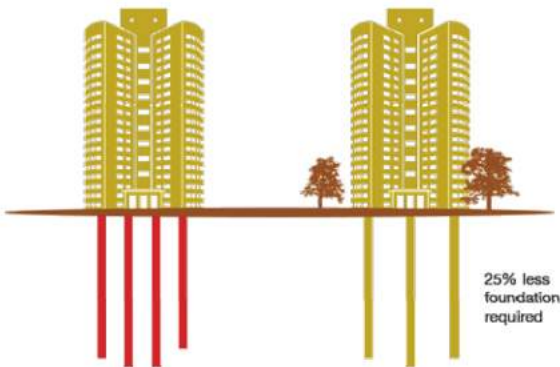
CLC Blocks provides flexibility in design by providing walls independent of beams by virtue of its light weight.



Foundations, Columns & Beams

The Density of CLC blocks are 50-60% lower than clay bricks /concrete blocks. This low density thus reduces the self-weight of the masonry structure.

By use of CLC Blocks, the self weight of the building is considerably reduced thus substantial saving structural cost of foundations, columns & beams.



CLC Blocks have significant cost advantages for foundation on weak soils or where safe bearing capacity of the soil is very low and for buildings foundations on soil strata where piles are used.

Flat Slabs

For structures where Flat Slabs & Post Tensioned slabs are used, CLC Block masonry is preferred due to its light weight characteristics.



PLANNING YOUR BUILDING WITH CELBLOC

Need to Transform

The rapid urban expansions and the deep desire for better quality living, continue to generate demand for a large number of residential buildings. Engineers and architects are under moral obligation to transform and would devise ways to build taller, stronger, faster and beautiful buildings using innovative building materials. Building architecture is fueled by an acceleration of technology, material science, and down-to-it attitude.

Innovative Wall material

CELLBLOC (CLC Blocks) are a new age innovative building material made of flyash, sand, cement and foaming agent cured under ambient temperature, providing value to builders and its inhabitants.

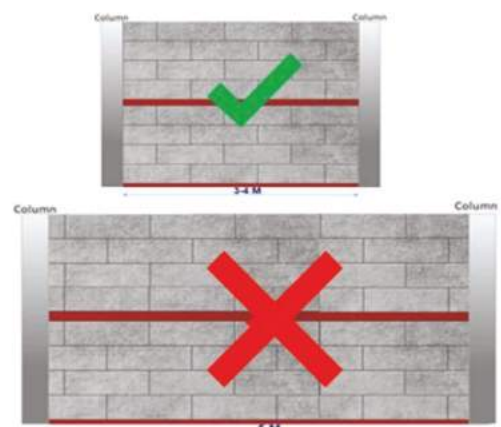
Avoid CLC for load-bearing structures

CLC Blocks are not advisable for load-bearing structures, i.e., structures where beam & columns are not used.



CLC Wall Span

Similar to other masonry units like CMU or bricks, it's not recommended to have long span CLC block wall without RC or stiffeners.





SEED INTEGRATED SOLUTIONS

The product family of SEED includes blocks, ready mix mortars, waterproofing materials and specialty concrete modifiers for different purpose and with different properties. The characteristics of all of the products are easy to match with each other while constructing the whole building with SEED integrated solutions.



SEED BLOCK JOINTING MORTAR is a fine mineral mortar meant for installing CELBLOC and partition wall plates, which is made from fine-fractioned quartz sand and polymer modified cement. The adhesive mixture can be used for external temperatures from +35 to -10°C. The mortar is available as a dry mixture packed in paper bags with a weight of 20 kg.



SEED REPAIR MORTAR is dry mineral mixture. It is intended for filling the passages milled in the walls for cables and pipes and also for repairing dents and chippings before finishing the walls. The mortar is available as a dry mixture packed in paper bags with a weight of 20 kg.

SEED PRODUCT LINE

www.seedpk.com



Specialized concrete products
VELOSIT
Germany



Masonry waterproofing products
IZONIL
Slovakia

TECHNICAL PARAMETERS

Details	Unit	CLC Blocks	Concrete Blocks
Block Dimensions	cm	60 x 20 x 15	40 x 20 x 15
Speed of Construction	m ² /man/day	15-25	10-12
Weight	Kg/m ²	65-70	145
Thickness of mortar	mm	3-4	13-16
Dry Density	Kg/m ³	800-1200 *	>1800
Compressive Strength (28 days)	psi	500-1500 *	800-1800
Dry shrinkage	%	< 0.12	0.12
Water Absorption	%	10	40
Moisture movement	%	< 0.10	0.10
Thermal Conductivity	W/mk	< 0.20	2.1
Fire Rating	hrs	4	1
Acoustic Performance	dB	> 40	> 30
Basic raw material	-	Cement, Fly ash, sand, foaming agent, admixtures	Cement, sand and aggregate
Eco friendly	-	Yes	No
Tolerance / Accuracy (All sides)	mm	±3	±10

* As per design requirement

BLOCK SIZES



Thickness	Dimensions
4-inch wall	600 x 200 x 100
6-inch wall	600 x 200 x 150
8-inch wall	600 x 200 x 200

Custom sizes available on demand

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