



**Smart Bricks for Smart Home** 

## Build Green Live Green

Coal dust has historically been collected as a waste product from homes and industry. During the nineteenth century coal ash was taken by 'scavengers' and delivered to local brick works, where the ash would be mixed with clay. The income from the sale of ash would normally pay for the collection of waste.

During the formation of coal, clay is entrapped through natural process, During the combustion, carbon is burnt leaving the incombustible clay particles as ash. In age old grate boilers, through prolonged residential time these incombustible ash used to agglomerate as cinder. But, ever since pulverised coal technology is put to practice in order to improve energy-efficiency, the ground clay remains in hearth for a fraction of second and flies (escapes) along with flue gases, setting as ash in bag filters or electro static precipitators (ESPs). Since it is 'flied ash' it is named as 'flvash'.

FlyAsh brick (FAB) is a building material, specifically masonry units, containing class C or

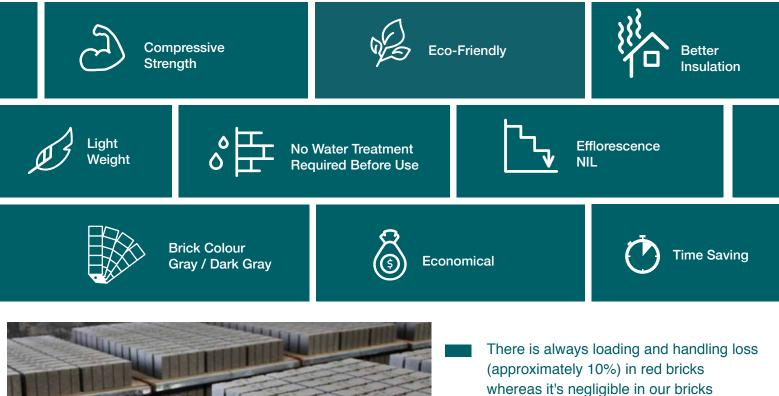
class F fly ash and water. Compressed at 28 Map (272 atm) and cured for 24 hours in a 66°C steam bath, then toughened with an air entrainment agent, the bricks last for more than 100 freeze-thaw cycles. Owing to the high concentration of calcium oxide in class C fly ash, the brick is described as "self-cementing". The manufacturing method saves energy, reduces mercury pollution, and costs less than traditional clay brick manufacturing.

## SAVE OUR MOTHER EARTH

Born from being thoughtful and sensitive to the natural environment in our daily lives we at VAISHNODEVI BUILDCON seek to establish a new paradigm in construction, through our specifically manufactured Eco friendly - Fly Ash Bricks in Ghoshpukur, West Bengal, India. Vaishnodevi buildcon Pvt Ltd incorporated in 2011 is a green field venture which recognises the imperative of Sustainable Development, Renewable Energy and Green Planet. Its corporate vision based on Triple Bottom Line is focused on Social and Environment Responsibility as an integral aspect of Business growth. Our products are making a discernible difference in modern projects and opening-up endless possibilities in application and design due to their superior characteristics.

> FlyAsh bricks are alternative to burnt clay bricks in the construction sector in India. Fly ash bricks are nowadays mostly used for construction and gaining its popularity over builders and engineers because of its high strength, uniformity and less consumption of mortar plastering. Above to this it is eco friendly bricks which saves environmental damage caused by brunt clay bricks and saves top agricultural soil which is the main raw material in the burnt clav bricks.Approximately 10,000 hectares of top soil is being lost every year for brick manufacturing and road construction. If it continues, very soon, we will not have sufficient soil to produce our minimum required food. Thus, Fly Ash bricks are proving to be a revolutionary invention that produces brick without using top soil and consequently no greenhouse gases are emitted.

### **ADVANTAGES** OF FLYASH BRICKS AND BLOCKS







In traditional burnt clay bricks plaster is a must whereas in our bricks direct Paris can be applied.

(approximately 2%).

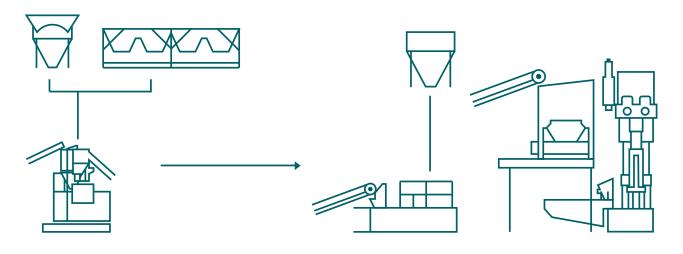
- Red bricks required water treatment before use which is not required in cement fly ash bricks which again save labour and water.
  - Adoption of this process helps to conserve invaluable top soil of agricultural land.
  - By consuming 80-82% fly ash. the cause of environmental pollution and hazards due to disposal is minimized.
  - Using flyash will help to stop deforestation, as firing of the bricks is not needed. And pollution due to firing is alsoeliminated, its a step towards sustainable development, we need to think for our future generation.

## **APPLICATION** AREA





## PROCESSES

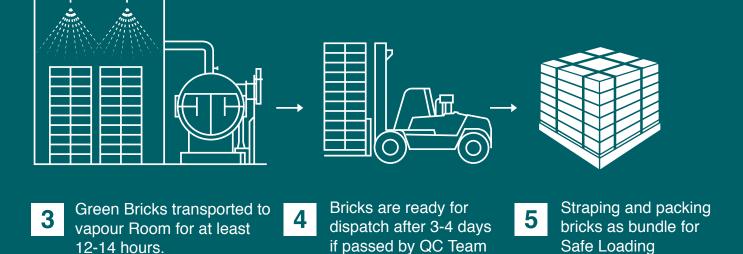




Dual Mixing of Raw material after proper weightening.



Feeding Raw material in moulds by belt conveyor & Pressing it into 13000 MT



### VAISHNODEVI BUILDCON PRODUCTS

#### MODEL: **K240**

The state of art product of Vaishnodevi Buildcon K240 is made of the finest raw materials. It is recognized for unmatched elegance and design versatility.



Length : **240 mm** Width : **110 mm** Thick : **70 mm** 

Weight (Dry) : **3.4 Kg 1m<sup>3</sup> = 541 pc** 

#### MODEL: ZN250

ZN250 creates a beautiful and strong wall for the modern construction. It is popular for Unmatched quality, Perfect dimension and High strength.



Length : **250 mm** Width : **120 mm** Thick : **75 mm** 

Weight (Dry) : **4.2 Kg** 1m<sup>3</sup> = **445 pc** 

#### MODEL: ZN230

ZN230 is among the finest line of product from the house of Vaishnodevi Buildcon. ZN230 is the perfect sized bricks for any modern construction.



Length : **230 mm** Width : **110 mm** Thick : **70 mm** 

Weight (Dry) : **3.2 kg** 1m<sup>3</sup> = **565 pcs** 

#### MODEL: **HB1**

HB1 is hollow block made with the ultra modern technology. It is the prefered chice to build lightweight and economical construction.



Length : **400 mm** Width : **200 mm** Thick : **200 mm** 1m<sup>3</sup> = **62.5 pcs** 

#### MODEL: HB2

HB2 is the hollowblock using superior grade concrete and modern technology, this is widely used in commercial and residential buildings to provide strength.



Length : **400 mm** Width : **200 mm** Thick : **150 mm** 1m<sup>3</sup> = **100 pcs** 

### VAISHNODEVI BUILDCON PRODUCTS

#### MODEL: ZIGZAG80

The Flexibility of our Zigzag Pavers allows for the system to adjust to the environment as well as avoid seismic distortion & cracking as compared to concrete slabs



WEIGHT : 4.55 kg

Thick : **80 mm** 

1 SQFT : 3.67 pcs 1 SQM : 39.50 pcs

#### MODEL: SolidBlock1

Our Solid Blocks are the new definition for beauty and elegance by the virtue of its High strength, Fire Resistant, Heat Resistant and Water Resistant properties.



Length : **390 mm** Width : **190 mm** Thick : **125 mm** 1m<sup>3</sup> = **108 pcs** 

#### MODEL: Brickpaver1

Our qualitative brick pavers are processed using ultra-modern technology in accordance with international quality standards. Owing to their quality attributes.



Length : **200 mm** Width : **100 mm** Thick : **100 mm** 

#### Aggregates

Our Premium Crushed Aggregates is ideal to be used in construction work, this product is precisely processed using latest techniques to make sure **No Dust, Double Filteration, No Mixing of Size.** 



CrushedRoundSizes:Natural6 mmSizes:10 mm6 mm20 mm10 mm32 mm20 mm40 mm40 mm

#### Washed Sand

Our washed sand is surface mined, screened and washed to remove silt and clay, then allowed to drain. This sand is precisely processed with cutting edge **CDE ASIA technology**, in compliance with international standards.



Zone - 2 Zone - 3 Plaster Sand All types Available

### **DEEP CURING &** PERFECT DRYING

Our products are well cured using the Steam Curing technology for 24 hours, it goes with deep cure and after the Deep curing our product goes with perfect drying and mannual curing for a week to ensure highest possible quality of our FlyAsh products.





# RAW MATERIAL & TECHNOLOGY

We select the Finest Raw Material either it is Flyash or other ingredients. At Vaishnodevi Buildcon we use best technology to ensure highest possible quality of our FlyAsh products bricks or blocks for your modrern and smart construction





# STRAPPING & SAFE LOADING

We use Tight Strapping to tie the bundle of bricks/blocks for safe loading. After strapping we delievr each bundle carefully using automated safe loading machine so that they are packed with moisture-proof material and loaded onto the truck or transport vehicle.







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