



SUSTAINABLE STRENGTH for Building the Future



An ISO 9001 : 2015 Company

CREDIBILITY MANUFACTURING



Zero discharge plant
Utilizing more than 15,00,000 kg
of ash every month
Rain water harvesting

Committed towards a green future

Turning industrial waste into an eco-friendly construction product takes a lot of determination and serious commitment. Taking these as core professional values, Harden Bricks has been able to build a reputation of maintaining excellence in quality and execution. With rapid urbanization, the use of alluvial soil for making traditional bricks has cropped up serious environmental issues. Harden Bricks has emerged with the solution of manufacturing fly ash bricks. Starting in 2013, it has now become a leading manufacturer of fly ash bricks, pavers & allied precast products in West Bengal. From residential projects to big commercial ventures, Harden Bricks is striving to provide best customer experience and is driven by the vision of creating the best in class products. Spread

over 3 acres of land, the Company has the production capacity of manufacturing one lakh bricks per day along with the production of other cement products (Pavers, Kerb Stone & Concrete Blocks etc). In 2020, Harden Bricks took over the Lafarge Unit of Bricks & Blocks manufacturing at Kharda, Kalyani Expressway. The installed machine Hess RH500 (Eastern India's one & only), is spread over 1.5 acres with monthly capacity of manufacturing 1.2 million bricks. Now the combined capacity is more than 3 million bricks per month.

The Company has earned a reputation for excellence in quality, service and keeping commitments within a short span of time.

Harden Bricks is the member of Indian Green Building Council. The manufacturing facility has earned ISO 9001 : 2015 certification in producing 'Green' building construction materials. The company is the founding member of All India Association of Fly Ash Products Manufacturer and Pavers and Blocks Manufacturers Association.

The Products manufactured comply with

- Fly Ash bricks: **BIS Code 16720:2018**
- Hollow Block & Solid Block: **BIS Code 2185:2005**
- Pavers: **BIS Code 15658:2006**
- Kerb Stones **BIS Code 5758:2005**

LEAVING A GREEN IMPRINT

with eco-friendly bricks



ELECTRICITY FOR INFRASTRUCTURE



FLY ASH



THERMAL POWER PLANT



COAL RESERVE



CAN BE TOTALLY UTILIZED



"The earth is what we all have in common"

With the boom in Indian construction industry, rich cultivable top soil is randomly being used for making bricks. This is creating serious damage to food production of the country. Fly Ash bricks are Eco-friendly as uses the waste of the thermal power plants to produce excellent cost effective solution to this problem.



Govt. notification for compulsory use of fly ash bricks within 300 kms of thermal powerplant



No excavation of agricultural top soil as in traditional clay brick



millions of tonnes of harmful CO₂ emission saved as in clay brick kiln



Generate Permanent Employment. No Child Labour

QUALITY ASSURED PRODUCTS

CONTROLLED PROCEDURE of manufacturing

THE BIG FOUR HARDENING TESTS

- 1** First, the raw material has to be right. Fly Ash, Aggregate Dust, Sand, Cement and Water is mixed in the right quantity to form a composite mortar in an automatic mixing machine.
- 2** Then a fully automated machine is deployed to manufacture the products.
- 3** The products are then dried under covered shade. When dry to the specifications, they are laid out in stacks and cured for a minimum of 21 days.
- 4** After 7 days of sun drying the products are tested for strength and ready for dispatch.

PRODUCTION CONTROL MECHANISM

- Ensuring quality consistency by mixing sand and other raw materials in real time
- Monitoring the exact moisture content and control the water addition to the mixture
- Using moisture measurement sensor Hydronix to get accurate moisture level in the mixture of water/cement ratios

This modern moisture sensor technology helps to make sure the perfect manufacturing process



ECONOMICAL CONSTRUCTION MATERIAL



ADVANTAGES of Harden Bricks



Cost Saving
Faster | Less of mortar |
Timely delivery



Better Thermal Property



Fire Resistant



Ease of Working
Smooth and uniform size



**Higher Compressive
Strength**
>80kg per sq/cm



Pest Resistant



Higher Carpet Area



**Resistance to Salinity
and Water Seepage**



Better Acoustic Properties

ESTEEMED CLIENTS

CLIENT speak

We have known M/s Harden bricks Pvt. Ltd. from its very inception as they have been supplying its products - fly ash bricks - to our various building projects. We are very pleased with the uncompromising quality of its products and schedule of delivery. We sincerely appreciate its responsiveness and the way they conduct business. We have no doubt whatsoever in recommending their product to others because of our satisfaction of their service and we look forward to doing business with them for all our on-going and future projects.

Mr. Jugal Khetawat
Chairman, Rameswara Group
South City Projects

Abhishek Agrawal



Good quality bricks. Much much better then rubber moulded bricks

Dev Sharma



The company deals with superior quality products.

*Source-Google Reviews

This is to certify that we have used the fly ash bricks manufactured & supplied by M/s Harden Bricks Pvt. Ltd. for our various projects and we are very satisfied with their quality, performance, service & price.

Ahluwalia Contracts India Ltd.

This is to certify that we have used the fly as bricks manufactured & supplied by M/s Harden Bricks Pvt. Ltd. for our project site and we are satisfied with their quality performance.

Parijat Mukhopadhyay

Manager - Materials
for ITD Cementation India Limited

Koustav Kundu



Brick mfg

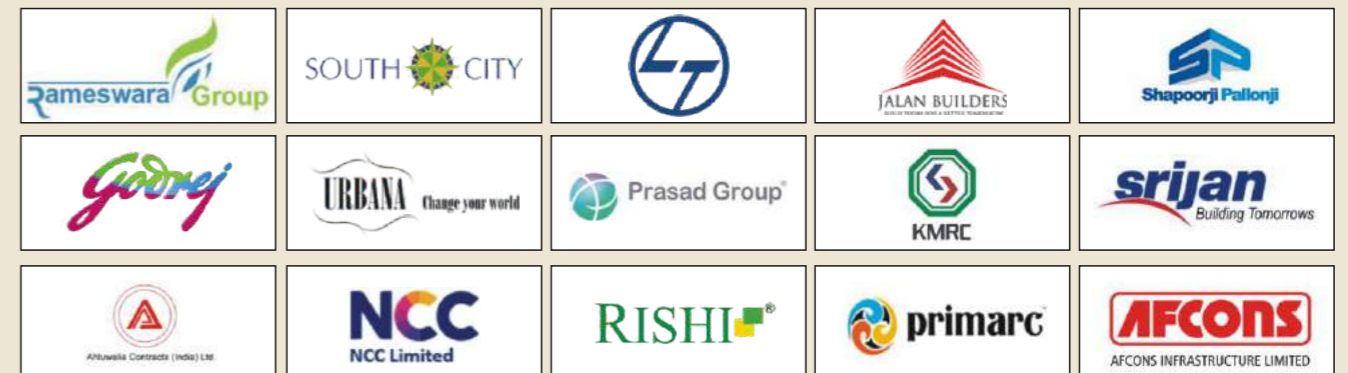
Isaac Mangalaraj



Timely delivery



OUR ESTEEMED CLIENTS



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...many more

SPECIFICATIONS OF Fly Ash Bricks

	Technical Evaluation	Fly Ash Brick
1	Colour	Grey
2	Basic Ingredient	Fly Ash + Cement + Sand + Stone Dust + Water
3	Density (kg/cubic meter)	1600 - 1700
4	Compressive Strength (Kg/Cm ²)	80 - 100*
5	Water Absorption	<15%
6	Drying Shrinkage	0.03%
7	Breakage in Transit	Less than 2%
8	Efflorescence	Nil
9	Eco-friendly	Yes
10	Mortar Saving - During laying	10 -15%
	During Plaster	10 - 15%

*Compressive strength can be increased as per customers requirement.

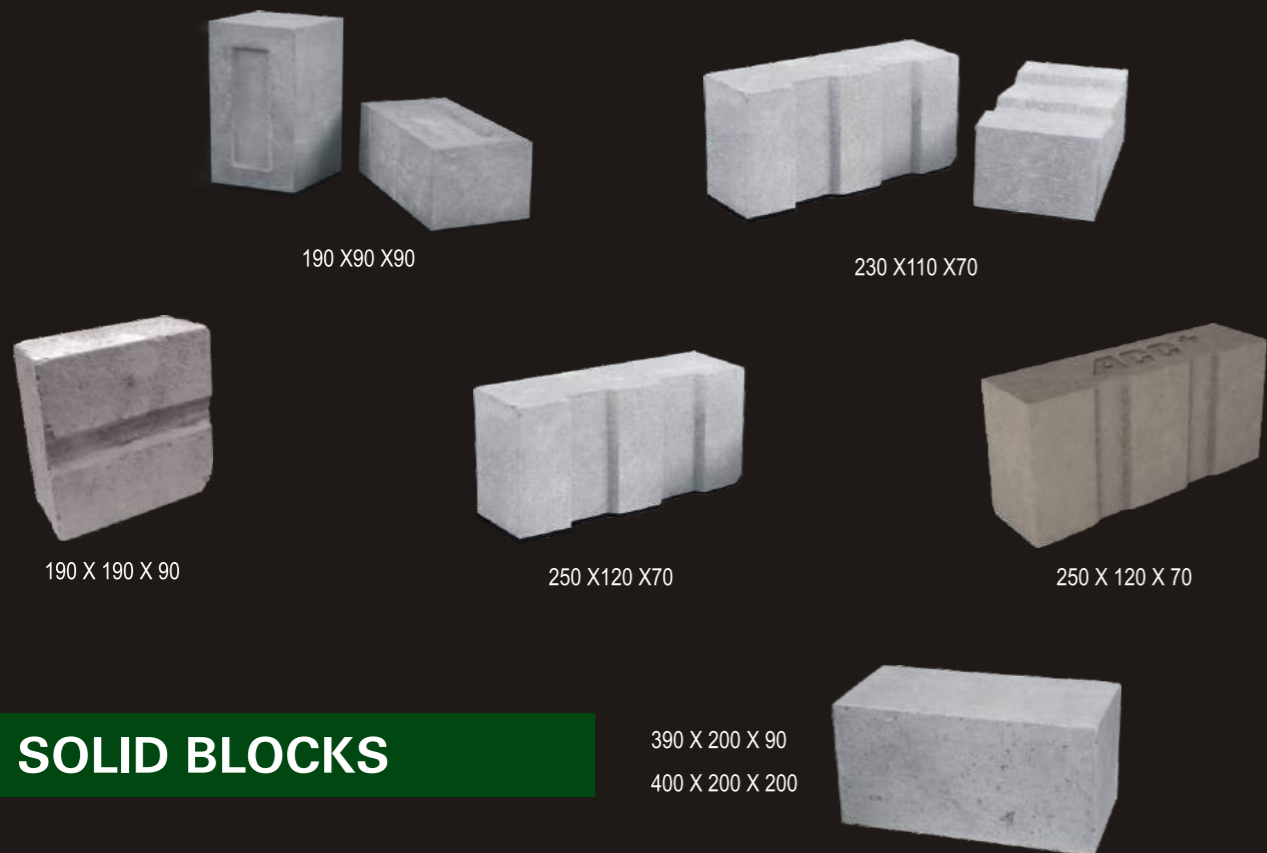
TECHNICAL EVALUATION

Technical Evaluation	Clay Brick	Auto Claved Brick	Fly Ash Brick
Porosity (Vacuum Process) (%)	35.84	73.92	28.56
Density (gm/cc)	1.90	0.60	1.7
Thermal Conductivity (W/mK) at 40°C	1.50	0.24	0.22
Cracking Test at elevated temp	at 200°C	No crack	No crack
	at 400°C	No crack	No crack
	at 600°C	No crack	No crack
	at 800°C	No crack	No crack
	at 1000°C	Bulged e-shaped	No future test after 800.c since brick cracked
Acid resistant test (%) loss	21.53	20.51	8.38



BRICKS

HOLLOW BLOCKS



SOLID BLOCKS



Size	Length (mm)	Height (mm)	Width (mm)	Strength (N/mm)	Weight (Kg)
4"	390	190	90	7.00	11
6"	390	190	150	7.00	16
8"	390	190	190	7.00	21

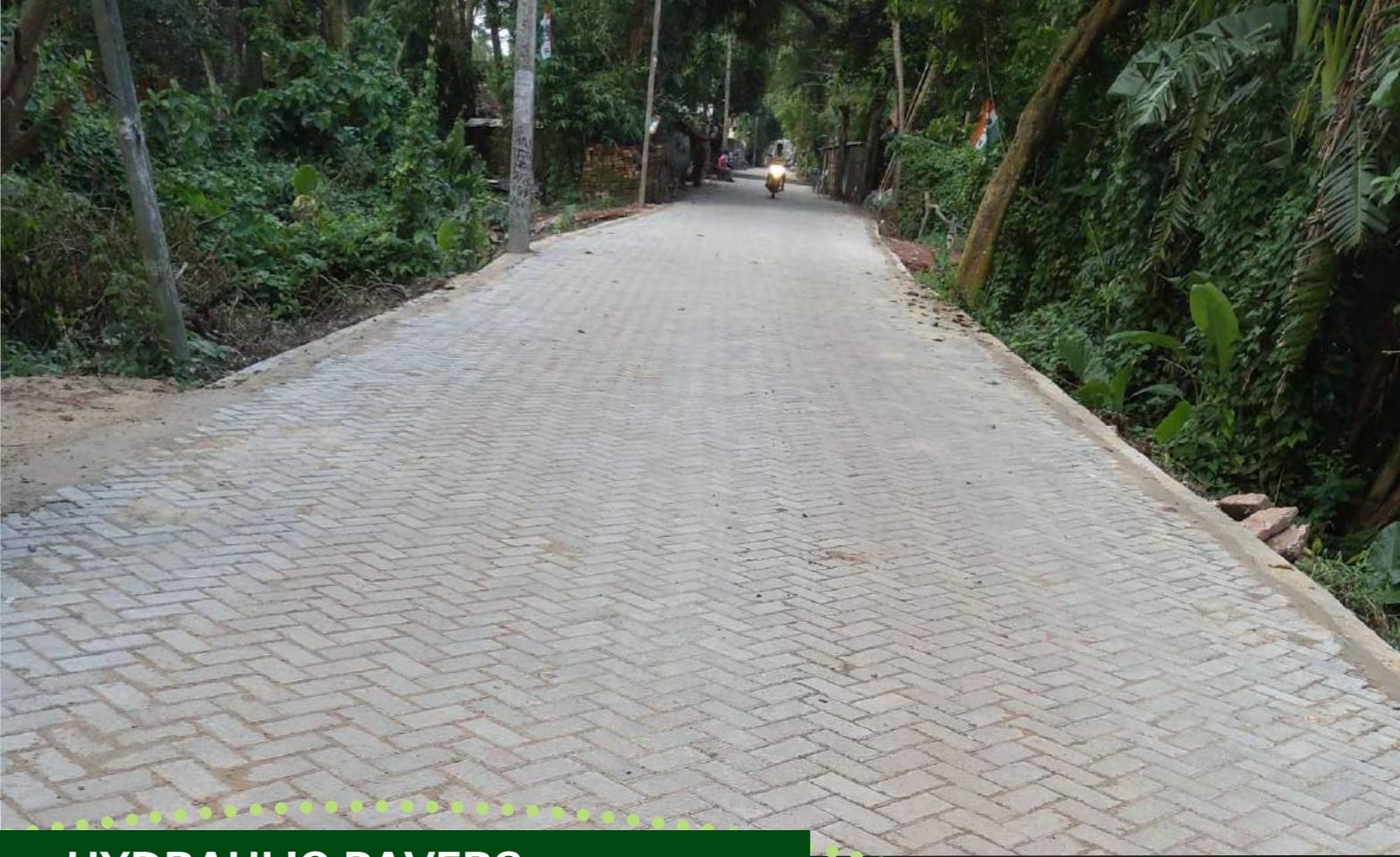
Hollow blocks are made of concrete and have hollows in the middle. Eco-friendly hollow blocks are great for their durability, construction speed and cost-effectiveness.

Advantages

- Highly Durable
- Good Resistance to Fire
- Low Maintenance
- Thermal and Sound Insulation
- Environment Friendly
- Cost Savings of Upto 20%



KERB STONES & WATER CHANNEL



HYDRAULIC PAVERS



300 X 300 X 150
500 X 300 X 150
410 X 200 X 150



500 X 300 X 100
400 X 200 X 100

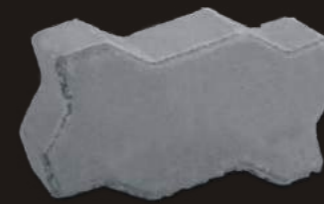
Kerb Stones are concrete solid that is fixed end to end with other solids to form a Kerb. They are generally used for forming curves, corners and transition without cutting.

Advantages

- Highest strength & density
- Available in various sizes and patterns
- Available in various colours
- Protects path from roads and other external surfaces
- Provides attractive look to gardens



I Paver 60 mm
3.10 pcs per sq. ft.



Zig Zag / Uni Paver 80 mm
3.44 pcs per sq. ft.



Brick Paver 60/80/100 mm
4.46 pcs per sq. ft.

Hydraulic Pavers are consisting of solid concrete blocks that are laid on a bedding material bound by kerb stones. These look much better than normal concrete slabs.

Advantages

- Highest strength density
- Lowest water absorption
- Cost-effective
- Available in various patterns & colours
- Roads made of pavers are highly durable
- Zero maintenance

PAVERS



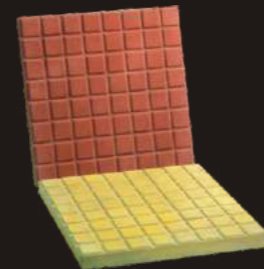
Zig-zag
60 / 80mm 2.88 Pcs / Sq.ft



Square
2.25 Pcs / Sq.Ft



Cobble
60mm 2.25 Pcs / Sq.ft



Tile
60mm 1 Sq.ft / Pcs



Rectangle
60 mm Block 4.46 Pcs / Sq.ft

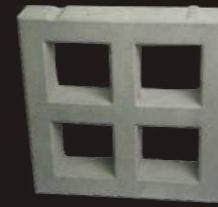


Cosmic
60mm 1.81 Pcs / Sq.ft



Dumbbell
60mm 2.4 Pcs / Sq.ft

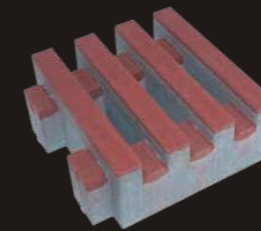
GRASS PAVERS



400 X 400 X 60 / 80



300 X 300 X 60
1 Pc / Sq.Ft



300 X 300 X 120

COVER BLOCK



20 X 25 X 40 X 50 mm

Cover block is a spacer that is used to lift the rebar matrix off the ground so that concrete may flow under the rebar.

Advantages

- Maintains distance between the rebar & shuttering
- Protects steel bars from corrosion
- Provides thermal insulation
- Enhances the life of the structure
- Cost-effective

COLOR OPTION



PAVERS

Pavers are used for concrete flooring. There are generally used on sidewalks, road surfaces, patios, courtyards etc.

Advantages

- Beautiful colours and pavers styles are available
- Cost-effective
- Versatility & safety
- Easy installation
- No cracking
- High strength
- Low maintenance
- Weather resistance

GRASS PAVERS

Grass pavers use interlocking grids that evenly distribute vehicle weight and other loads. These pavers can allow rainwater to infiltrate the ground. They also make pavements attractive.

Advantages

- Hard Standing
- Erosion Control
- Ground Armoring
- Access Paths and Parking in Environmentally Sensitive Areas
- Ground water recharge
- Can bear the load of fire tenders

All dimensions are in mm.



Harden Bricks Pvt. Ltd.

An ISO 9001: 2015 Company

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