Stamped concrete, commonly referred to as patterned concrete or imprinted concrete, is concrete that is designed to resemble bricks, slate, flagstone, stone, tile, and even wood. Stamped concrete can be used to beautify pool decks, driveways, entries, courtyards, and patios.

Advantages:
- Easy Maintenance
- Slip Resistant
- Added Value & Curb Appeal
- Great For All Weather Conditions
- Exceptional Durability
- Oil, Rust & Mildew Resistant
- Large Color Selection
- Premium Quality

Harden Bricks Pvt. Ltd.
An ISO 9001: 2015 Company
Registered Office:
JL 25, MAUZA - NOWPURA, P.S.- BAGAN,
Dist. HOWRAH, Pin - 711 303
Ph. 80171 15070
Email: info@hardenbricks.com | Web: www.hardenbricks.com
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 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. Spreading over 3 acres of land, the Company has the production capacity of producing one lakh bricks per day. And within a short span, the Company has earned a reputation for keeping commitments.

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 Products manufactured comply with

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

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

BUILDING CREDIBILITY
SAVE THE PLANET with eco-friendly bricks

"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 severe damage to food production of the country. Fly Ash bricks are Eco-friendly as they use the waste of thermal power plants to produce excellent cost effective solutions to this problem.

SAVE THE ECOLOGY

- Electricity for infrastructure
- Fly Ash
- Thermal power plant
- Coal reserve
- Government notification for compulsory use of fly ash bricks within 300 kms of thermal powerplants
- 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
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 bricks.

3. The bricks are then dried under covered shade. When dry to the specifications, the bricks 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.

QUALITY ASSURED
ADVANTAGES of Harden Bricks

- Cost Saving
  Faster | Less of mortar | Timely delivery

- Higher Compressive Strength
  >80kg per sq/cm

- Higher carpet Area

- Ease of Working
  Smooth and uniform size

- Fire Resistant

- Better Acoustic Properties

- Better Thermal Property

- Pest Resistant

- Resistant to salinity and water seepage

ECONOMICAL & PROFITABLE
We have known Ms. 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, Ramesware Group
SouthCity Projects

This is to certify that we have used the flyash 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.

Ahuwalia Contracts India Ltd

OUR ESTEEMED CLIENTS

Disclaimer: The logos shown here are for representational purpose only...many more
## Technical Evaluation of Fly Ash Bricks

<table>
<thead>
<tr>
<th>Technical Evaluation</th>
<th>Clay Brick</th>
<th>Auto Claved Brick</th>
<th>Fly Ash Brick</th>
</tr>
</thead>
<tbody>
<tr>
<td>Porosity (Vacuum Process) (%)</td>
<td>35.84</td>
<td>73.92</td>
<td>28.56</td>
</tr>
<tr>
<td>Density (g/m³)</td>
<td>1.90</td>
<td>0.60</td>
<td>1.7</td>
</tr>
<tr>
<td>Thermal Conductivity (W/mK) at 40°C</td>
<td>1.50</td>
<td>0.24</td>
<td>0.22</td>
</tr>
<tr>
<td>Cracking Test at elevated temp</td>
<td>No crack</td>
<td>No crack</td>
<td>No crack</td>
</tr>
<tr>
<td>at 200°C</td>
<td>No crack</td>
<td>No crack</td>
<td>No crack</td>
</tr>
<tr>
<td>at 400°C</td>
<td>No crack</td>
<td>No crack</td>
<td>No crack</td>
</tr>
<tr>
<td>at 600°C</td>
<td>No crack</td>
<td>No crack</td>
<td>No crack</td>
</tr>
<tr>
<td>at 800°C</td>
<td>No crack</td>
<td>No crack</td>
<td>No crack</td>
</tr>
<tr>
<td>Bulged e-shaped</td>
<td>No crack</td>
<td>No future test</td>
<td>No crack</td>
</tr>
<tr>
<td>at 1000°C</td>
<td>Bulged</td>
<td>after 800°C</td>
<td>No crack</td>
</tr>
<tr>
<td>Pyrometric cone equivalent (Melting point)</td>
<td>1200°C</td>
<td>1440°C</td>
<td>1145°C</td>
</tr>
<tr>
<td>Acid resistant test (%) loss</td>
<td>21.53</td>
<td>20.51</td>
<td>8.38</td>
</tr>
</tbody>
</table>

*Compressive strength can be increased as per customers requirement.

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### Product Advantage

**Pavers and Kerb stones**

1. Easy handling and maintenance, negligible repairing, negligible replacement cost.
2. Environment friendly: More durable - no expansion, no contraction due to weather change be it monsoon or summer.
3. Higher strength due to vibro compaction technology.
4. Applications: Internal road, Pathway, Parking Bay.
BRICKS

- 180 x 180 x 30
- 220 x 110 x 70
- 200 x 320 x 40

HOLLOW BRICKS

- 400 x 200 x 20 - 2 cavities
- 400 x 200 x 20 - 4 cavities
- 450 x 100 x 200 - 2 cavities

KERB STONES

- 300 x 300 x 150
- 200 x 100 x 60

HYDRAULIC PAVERS

- Dutch Paver 60 mm
  2.74 sq ft per sq ft
- Zig Zag Unit Paver 60 mm
  2.24 sq ft per sq ft
- Brick Paver 100 mm
  4.05 sq ft per sq ft

PAVERS

- Core Paver 50 mm
  Dimension: 1.76 sq ft per piece
- Zig-naz Paver 600mm
  2.89 sq ft per sq ft
- Brick Dimension: 600mm
  2.4 sq ft per sq ft

COLOUR OPTION

- Blue
- Black
- Grey
- Light Grey
- Yellow
- Green
- Red

All dimensions are in mm.