Stamped concrete, commonly referred to as patterned concrete or imprinted concrete, is concrete that is designed to resemble brick, 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 Condition
- 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.- BAGMAN,
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
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 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.
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
ECONOMICAL & PROFITABLE

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

- **Better Thermal Property**

- **Fire Resistant**

- **Pest Resistant**

- **Resistant to salinity and water seepage**

- **Better Acoustic Properties**
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, Namesware 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
SPECIFICATIONS OF Fly Ash Bricks

<table>
<thead>
<tr>
<th>Technical Evaluation</th>
<th>Fly Ash Brick</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Colour</td>
<td>Grey</td>
</tr>
<tr>
<td>2 Basic Ingredient</td>
<td>Fly Ash + Cement + Sand + Stone Dust + Water</td>
</tr>
<tr>
<td>3 Density (kg/cubic meter)</td>
<td>1600 - 1700</td>
</tr>
<tr>
<td>4 Compressive Strength (Kg/Cm³)</td>
<td>80 - 100*</td>
</tr>
<tr>
<td>5 Water Absorption</td>
<td>&lt;15%</td>
</tr>
<tr>
<td>6 Drying Shrinkage</td>
<td>0.03%</td>
</tr>
<tr>
<td>7 Breakage in Transit</td>
<td>Less than 2%</td>
</tr>
<tr>
<td>8 Efflorescence</td>
<td>Nil</td>
</tr>
<tr>
<td>9 Eco-friendly</td>
<td>Yes</td>
</tr>
<tr>
<td>10 Mortar Saving - During laying</td>
<td>10 - 15%</td>
</tr>
<tr>
<td></td>
<td>During Plaster 10 - 15%</td>
</tr>
</tbody>
</table>

*Compressive strength can be increased as per customers requirement.

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.

<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 (grn/cc)</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></td>
<td></td>
<td></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>at 1000°C</td>
<td>Bulged e-shaped</td>
<td>No future test after 800°C since brick cracked</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>