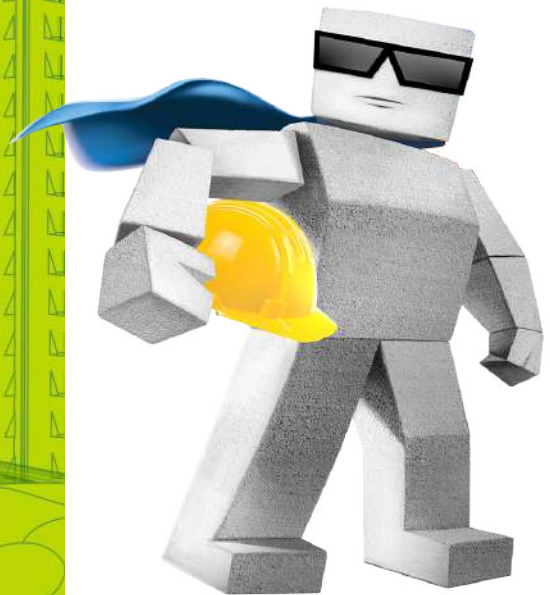


magicrete[®]
magic behind happy homes

WALLING SOLUTIONS



Who We Are?

"We help people build their homes **better, faster and cheaper** by using innovative construction technologies".

More than a decade of innovation and continuing.



The largest manufacturer of AAC Blocks in India (installed capacity of **13 lakh CBM/annum**) near high growth markets of West and North



10 lacs+ homes built over the past decade using Magicrete products.



Motilal Oswal Private Equity (2013) & India SME (2023) invested in **Magicrete**.



Launch of **Magicrete AAC Wall Panels** – a significant shift in wall construction built using European Technology.



AAC Blocks

Block Joining Mortar

AAC Slabs

AAC Wall Panel

PrimeKote
Anti-efflorescence primer

WallPRO
protective coating for external wall

Putty Plus

Ready Mix Plaster



Advantages



Cost Effective

Save upto 15% in Foundation cost



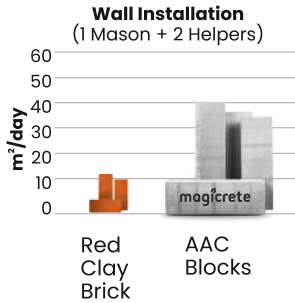
Building using Bricks

Building using **AAC Products**



Wall Installation Speed

Bricks Vs AAC Blocks



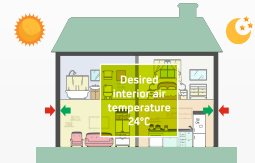
Red Clay Brick

AAC Blocks



Thermal Control

Day time exterior temperature 33°C
Night time exterior temperature 20°C



Building uses approx. 30% less energy for cooling and heating the interior air space



Fire Resistance

Magicrete AAC Blocks provides a fire rating of 4 hours for Thickness of 150 mm.

This makes it one of the best building materials available in the market.



Acoustic Insulation

Magicrete AAC Blocks provides extraordinary defense against noise pollution. The sound reduction index is more than 40 dB.

Thickness (mm)	75	100	150
STC rating (dB)	40	43	46

- With 3-4 mm skim coat
- For 52 dB, install gypsum board (12.5mm) with stud framing on both sides.



Space Saving

Better option to use thinner internal walls, 75mm instead of 100 mm and as a result there is an increase in floor space area upto 2%.



Durable

Absorbs strong impacts.
Withstand harsh weather conditions without cracking.



Easy & Fast Installation

It is easy to chisel, cut & core the AAC Blocks, as per requirement.

Why Magicrete AAC Blocks ?



Weighs **1/3rd** of clay bricks,
leads to steel structure
reduction upto **15%**



High thermal insulation:
Save upto **30%** on
AC / Electricity cost.



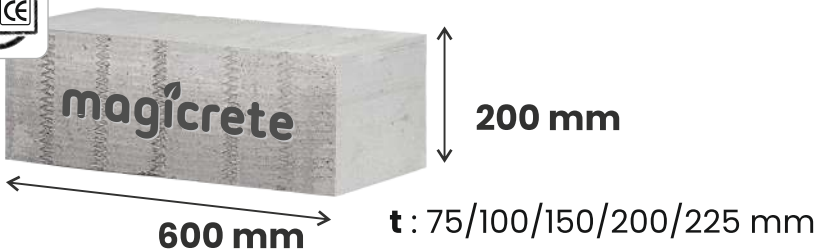
4X faster construction



Honeycomb structure provides
highest strength to weight ratio.
Compressive strength: $4\text{N} / \text{mm}^2$

Technical Specification

PARAMETER	VALUE
Density (Oven Dry)	550-650 kg/m^3
Compressive Strength	$4\text{N}/\text{mm}^2$
Modulus of Elasticity	$2040 \text{N}/\text{mm}^2$
Coefficient of Thermal Expansion	$8.1 \times 10^{-6} \text{K}^{-1}$
Water Absorption (at equilibrium)	8%
Thermal Conductivity (K value)	$0.16 \text{W}/(\text{m.K})$
Drying Shrinkage	0.04%
Fire Resistance	4 Hrs. (for 150 mm wall)
Sound Transmission Class Rating	43db (for 100mm wall)



*Above mentioned dimensions are available at Navsari unit & Wada unit.

*AAC Blocks of dimensions 625 mm x 200 mm x 100/150/200/225 mm
are available at Jhajjar unit.

Walling Material Comparison



PROPERTY	RED BRICK	CONCRETE BLOCK	AAC BLOCK
Material Composition	Top Soil	Cement + Water + Sand and Gravel.	Fly Ash + Gypsum + Lime + Cement + Aluminium powder
Water Absorption	High	Average	Low
Pest & Termite	High	None	None
Dry Density	1800-2000 kg/m ³	2500 kg/m ³	550-650 kg/m ³
Earth Quake Resistance	Low	Low	Highest in the category
Wastage due to Breakages	High 10 to 12%	Minimal (1-3%)	Minimal (1-3%)
Fire Resistance (6" wall)	2 hours	3 hours	4 hours.
Energy Saving	Low	Average	High (30% less electricity consumption on HVAC)
Thermal Conductivity (K value)	0.81 W/m ² .K	2 W/m ² .K	0.16 W/m ² .K

Quick Facts



AAC Blocks consists **80% air** by volume, making it lightest available walling material (**weighs 1/3rd** that of clay bricks).



It is further strengthened by high pressure steam curing in **Autoclaves**.



Formed as a result of reaction of aluminum on a proportionate blend of lime, Cement & Fly ash, the hydrogen gas that escapes creates **millions of tiny air cells** giving it a strong **Honey comb** like structure.

Say no to the hassle & expense of Bond Beam/Coping

Switch to

magicrete[®]

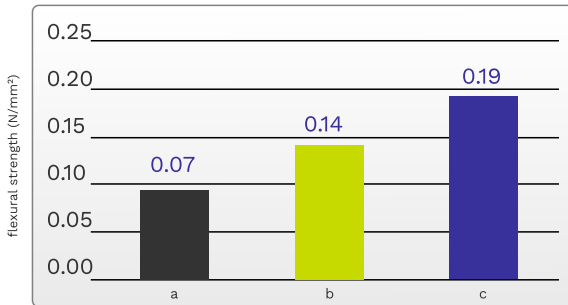
POWER MESH



Magicrete Power Mesh serves as a bed joint reinforcement used in horizontal AAC masonry joints. Reinforcement within AAC masonry amplifies the lateral stability of walls, diminishes occurrences of thermal cracks, and boosts flexural strength by over double the original capacity.

According to IS:6041-1985 code of practice for the construction of AAC Blocks Masonry, providing horizontal joint reinforcement is essential to prevent cracks in masonry.

Comparison of flexural strength of Unreinforced Masonry, Steel Wire Reinforced Masonry & Magicrete Power Mesh Reinforced Masonry



a = Unreinforced Masonry b = Steel Wire Reinforced Masonry
c = Magicrete Power Mesh Reinforced Masonry

Citation: Piekarczyk, A.; Flexural strength of AAC masonry with bed joint reinforcement. ce papers. 2018; 2:389-396 <https://doi.org/10.1002/cepa.887>



Benefits



Enhanced Strength



Better Bonding



Easy Workability



Crack Control



Cost-Effective



Impact Resistance

*For optimal results, it is recommended to use Magicrete Power Mesh along with Magicrete Block Joining Mortar.

Block Joining Mortar



PACKAGING:
30 Kg & 40 kg bag

Technical Specification

PARAMETERS	SPECIFICATIONS
Appearance	Grey Powder
Water Required	35%
Pot Life	~1.5 - 2 hrs
Curing	Not required
Tensile Adhesive Strength	>0.41 N/mm ² (as per ASTM - C1660)
Coverage	170 - 180 sq.ft (for 4" thick blocks)

Features:

- High bond strength
- No shrinkage cracks
- High thermal insulation
- Shock & impact resistant
- Superior adhesion
- Excellent compressive & tensile strength

Technical Specification

PARAMETERS	SPECIFICATIONS
Appearance	Greyish Granular Powder
Maximum Aggregate Size	<3 mm
Bulk Density	1.5 - 1.6Kg/l
Compressive Strength (28 days)	>9 N/mm ²
Flexural Strength (28 days)	Min 1.8 N/mm ²
Water Retentivity	Min 95% (EN 1015 - 8)
Coverage	18-20 Sq.ft./40 kg Bag (for 10-12mm thickness)
Thickness of layer	Max 12mm per coat
Pot life	1.5-2 hours
Proportion of water	17-19% as per weight

Features:

- High strength
- Crack free wall
- Faster application
- Excellent coverage

Readymix Plaster



PACKAGING:
40 kg bag

Wall Putty



PACKAGING:
20 Kg & 40 kg bag

Technical Specification

PARAMETERS	SPECIFICATIONS
Appearance	White Powder
Initial/Final Setting Time	270/300 Min
Tensile Adhesion Strength	>1.0 N/mm ²
Compressive Strength	8.5 N/mm ²
Flexural Strength	2.1 N/mm ²
Water Retentivity	99.60%
Pot Life	90-100 Min
pH	9.2-10.1
Coverage	12-15 Sq.ft/kg depending on wall finish

Features:

- No shrinkage cracks
- Protects expensive paint from flaking, dampening and peeling off
- Reduces paint consumption
- Superior paint finish
- Strong bonding

WallPRO



PACKAGING:
4 Ltr & 20 Ltr Pail

Technical Specification

PARAMETERS	SPECIFICATIONS
Appearance	Single Component Emulsion
UV Resistant - 1000 hrs	No Defects
Exposure Drying Time	30 min
Gravity	1.31-1.35
Algae and Fungus Resistant	No Growth
Crack Bridging Ability	Upto 2 mm wide
Tensile Strength	1.5 N/mm ²
Adhesion Strength	1.0 N/mm ²
Elongation	>100%
Water Permeability	6

Features:

- Excellent waterproofing
- Resistant to UV degradation
- Bridges cracks up to 2 mm width
- Improves tensile adhesion strength
- Anti-carbonation
- Highly flexible
- No shrinkage cracks

Technical Specification

PARAMETERS	SPECIFICATIONS
Appearance	Liquid white tinted primer
Specific Gravity (@27°C)	1.28 ± 0.01
Solid Content	>50 %
Tensile strength (ASTM D412)	≥ 2.0 N/mm ²
Efflorescence resistance	No efflorescence observed on paint film
Resistance to water	Passes
Accelerated Weathering (@ 500 hrs UV exposure)	Passes

Features:

- Efflorescence barrier mechanism
- Penetrating primer
- Excellent adhesion
- Anti-fungal
- Alkali resistance

PrimeKote



PACKAGING:
4 Ltr & 20 Ltr Pail

CrackPRO



PACKAGING:
1 kg Pail

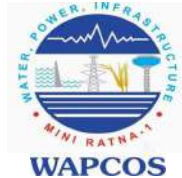
Technical Specification

PARAMETERS	SPECIFICATIONS
Specific Gravity (@ 27°C)	1.40 ± 0.02
Service temp range (@ 30°C)	-15 to +80
Non Volatile Content	>70%
Vertical slump.	Nil
Movement accommodation factor	+ 10%
Extension recovery	Min 75%
Water resistance	Excellent
Freeze / thaw stability, cycles	Passes 5
Volume shrinkage	20%
Tack free time	30 - 40 Mins

Features:

- Non-shrink
- Superior mechanical strength
- Water resistant
- Highly flexible
- Strong adhesion

Approved By



Esteemed Clientele



Project Gallery



Diamond Bourse
Surat, Gujarat



Supreme Court
New Delhi, Delhi



IIT Ropar
Rupnagar, Punjab



ITPO, Pragati Maidan
New Delhi, Delhi



DLF Camellias
Gurgaon, Haryana



Omkar 1973
Mumbai, Maharashtra



Ajmera Aeon
Mumbai, Maharashtra



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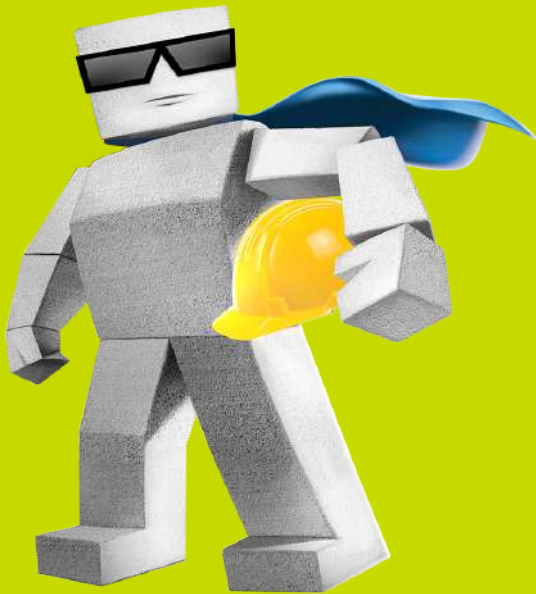
Goa Airport
Dabolim Airport, Goa



Exhibition and Convention Center,
Yashobhoomi - Dwarka, Delhi



Lodha World Tower
Mumbai Maharashtra



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In case of customer complaints contact **80 70 40 80 10**

Or Email us on **info@magicrete.in**

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