Wienerberger Presentation

Wienerberger
Building Material Solutions

Wienerberger - Introduction

Wienerberger
Building Material Solutions

- Wienerberger was found in 1819 – 196 year old company
- Head quartered at Vienna - Austria
- Worlds largest producer of clay building materials

Wienerberger India

Indian headquarters:

Operation started in January 2007

Ground breaking Ceremony for Kunigal

19th October 2007

- **Plant Location:**
- Kunigal, Karnataka
- **Capacity in tons:**

180000 tons / annum

- **Start of production:**

2nd quarter of 2009

Wienerberger India product portfolio

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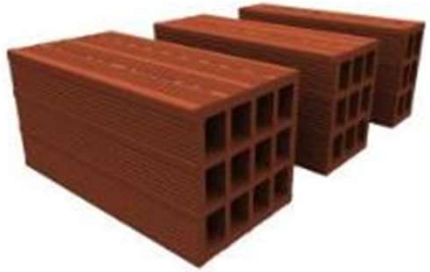
Wall	Roof	Facade



Porotherm

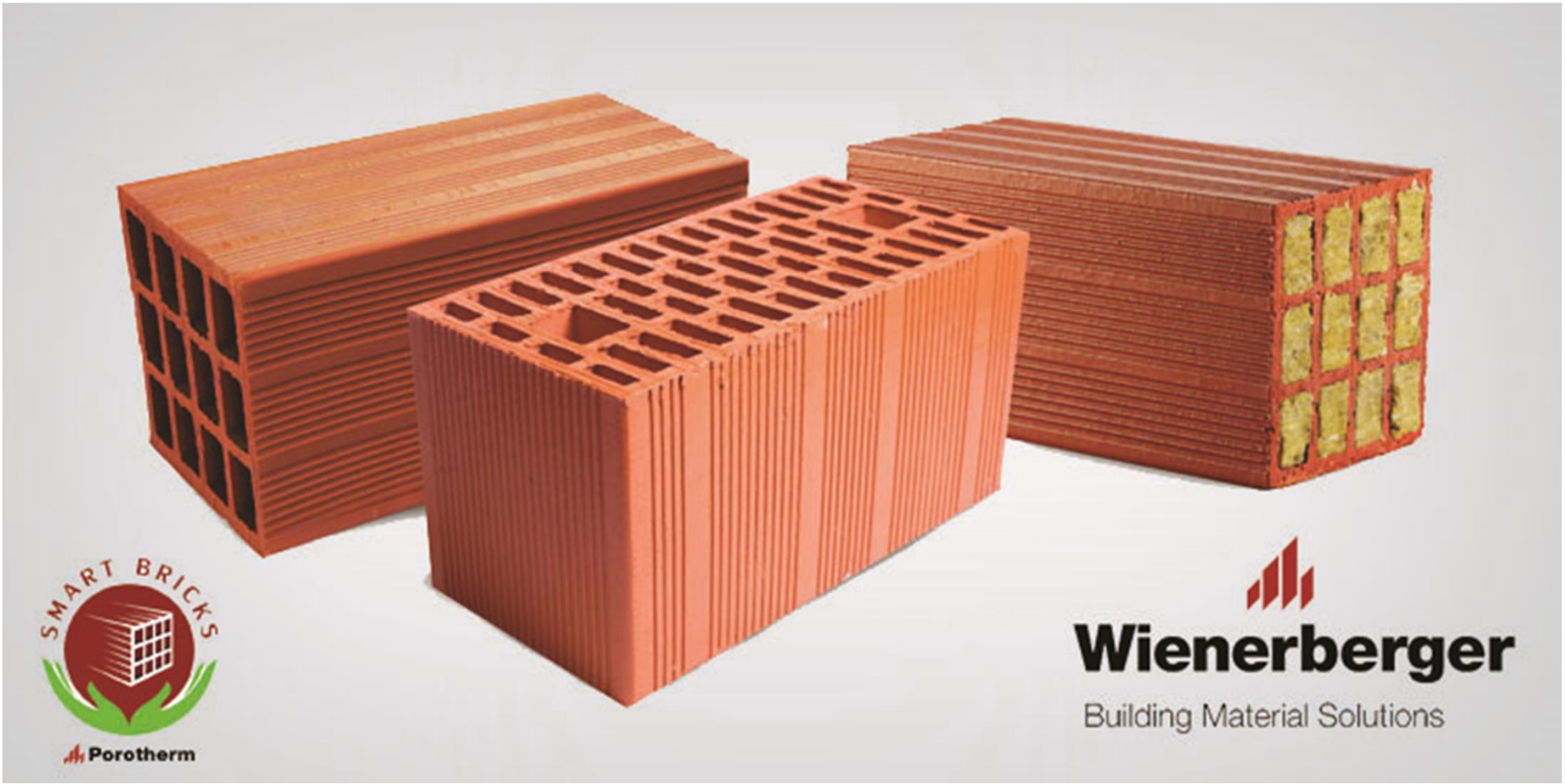
Koramic

Aspect
Clay Ventilated Façades

Factory at Kunigal - Bangalore

Imported Product group

Porotherm


SMART BRICKS
Porotherm
Wienerberger
Building Material Solutions

Production Facility – Kunigal India

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Porotherm HP

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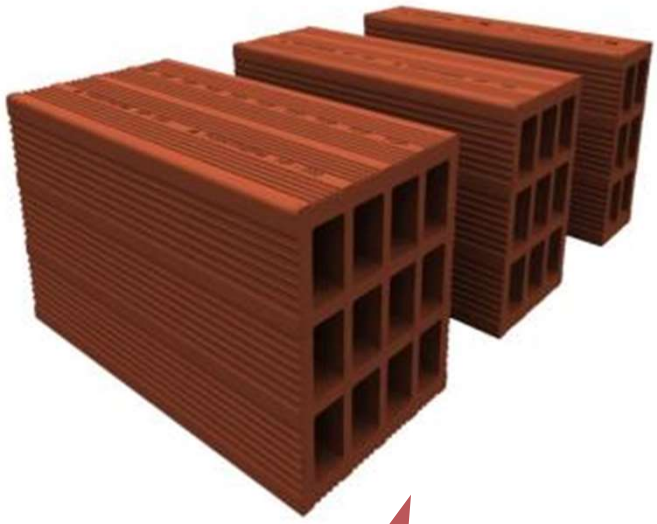

16000 apartments completed

- Non - load bearing construction
- Light weight walling material
- Ease of handling at site
- Excellent Thermal insulation
- Reduction in Energy consumption
- “NATURAL & GREEN” Building material
- Application support
- Value generation for promoters

Porotherm HP : Product Properties

Name	Length MM	Width MM	Height MM	Weight KG	Density KG/M^3	Compressive Strength* N/MM^2	Water Absorption %	Efflorescence	U Value W/m^2 K	Sound Insulation Rw(db)	Fire Resistence (MINUTES)
Porotherm HP 200	400	200	200	11.1	694	≥3.5	~15%	Slight	1.0	46	240
Porotherm HP 150	400	150	200	8.8	733				1.2	43	120
Porotherm HP 100	400	100	200	6.3	788				1.7	40	90
Porotherm HP 200H	200	200	200	5.8	Same as full bricks	Same as full bricks	Same as full bricks		Same as full bricks	Same as full bricks	Same as full bricks
Porotherm HP 150H	200	150	200	4.2							
Porotherm HP 100H	200	100	200	3.1							

Porotherm HP Tolerance				
Dimensions (MM)	400	200	150	100
Tolerance(MM)	± 8	± 4	± 3	±2

Note* Compressive strength value is based on testing procedure as prescribed in IS 3952
Porotherm is manufactured using natural raw materials, hence possibility of colour variations is high

Porotherm HP : Product Benefits

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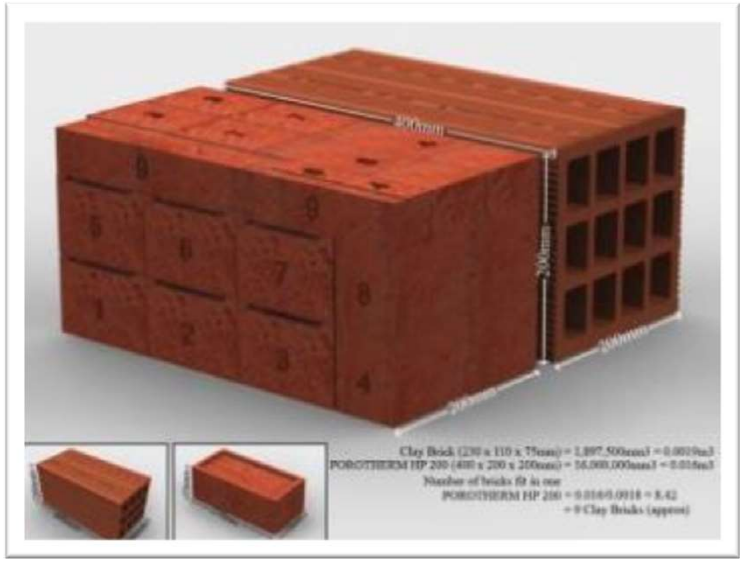
- Porotherm HP is big in size:
  - Porotherm HP 200 is equal to 8.46 bricks I.e. approx 9 bricks (230x 110 x 75mm)
  - Less mortar joints – less mortar, hence less plumb & alignment
  - Faster construction
- Light Weight : 60% less in weight
  - Ease of handling, Transportation
  - Saves labor
  - Less dead load, Savings in Steel & Concrete
- Precision on brick size and surface
  - Savings on mortar
  - Line and leveled plaster surface
- Low ‘U’ Values – 1.0 W/m²K
  - Better Thermal Insulation = less energy loss through walls
  - Savings on Energy consumption
  - Comfortable inside temperature



An Intelligent Product

Porotherm VP & End Brick application

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Faster & economical construction

- Load bearing construction
- G + 2 without column
- High compressive strength
- Saving on structural cost
- Excellent Thermal & Sound insulation
- “NATURAL & GREEN” Building material
- Technical support

End Brick Proposed

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VP 200

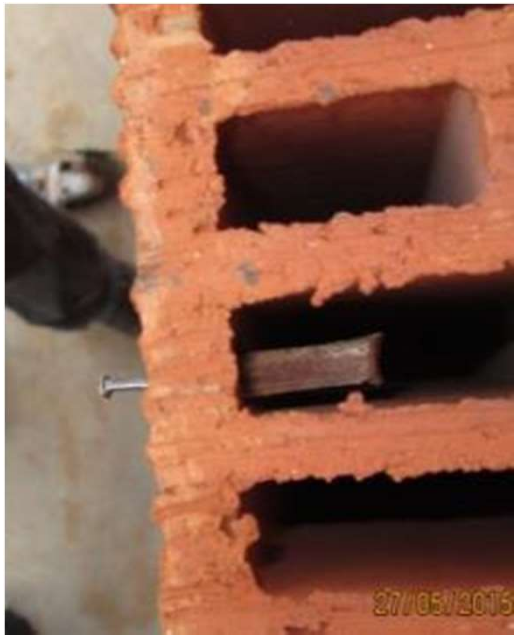
VP 150

- End Brick is for a purpose of convenience in masonry
- Wienerberger would strive in long term to optimize the offering in terms of design, weight etc.,

Cutting Bricks

- Cutting Brick is easy and multiple pieces can be sourced by cutting and chipping
- Useful for staggering, filling up of the wall lengths in masonry

Load Fixing



- Light Load – fixed using small plastic sleeves, wooden peg
- Medium & Heavy Loads fixed using HRD UGT Anchor fasteners Door fixing

- Can be used in Wall Junctions

- Door Window opening ends

Actual Site application photos – Inner space

- Door Window opening ends

- Wall Junctions

POROTEHRM HP G

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- **Grinded surface – Uniform Height – stability to work with slim joints**

POROTHERM Dry Fix . System

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POROTHERM HP G + Dryfix System

3 Steps for faster construction

Process Wall Construction

Conventional Vs. Dry Fix – Wall Construction

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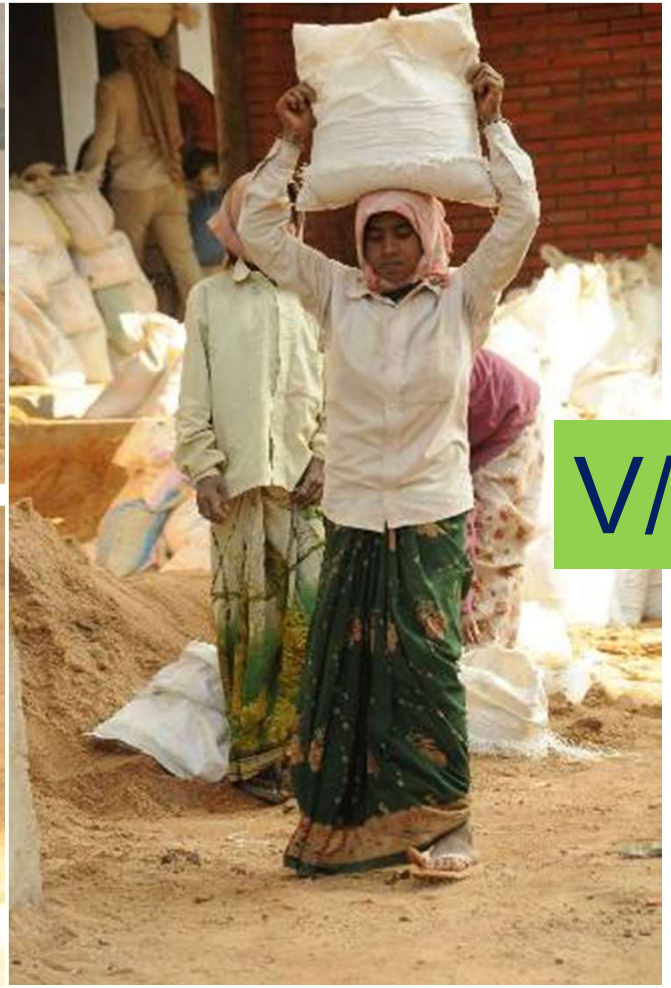

V/S.

Process Wall Construction

Conventional Vs. Dry Fix – Wall Construction

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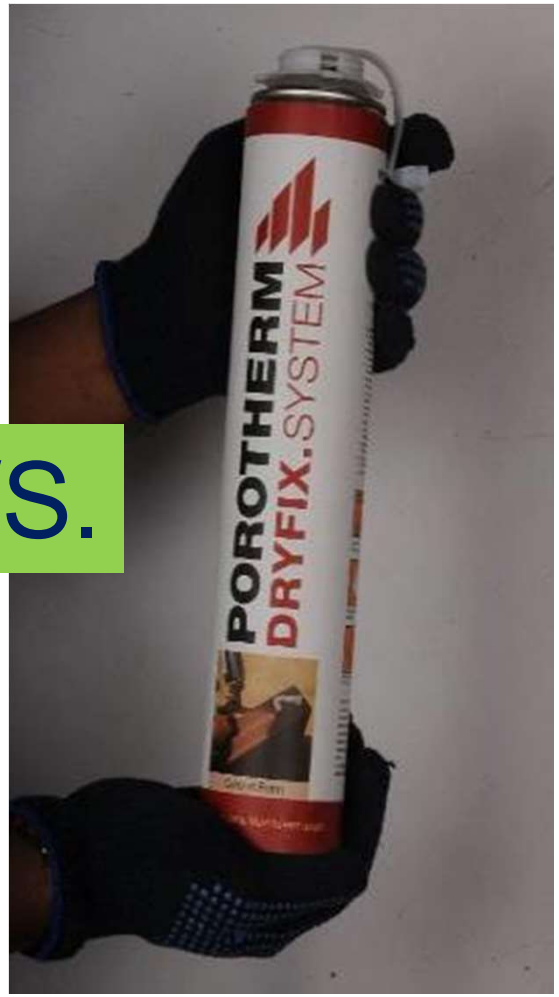
V/S.



Process Wall Construction

Conventional Vs. Dry Fix – Wall Construction

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VS

Process Wall Construction

Conventional Vs. DRYFIX – Mess at Site

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VS

Process Wall Construction

Conventional Vs. DRYFIX – Next Activity

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VS

Process Wall Construction

Conventional Vs. DRYFIX – Wall Constructed

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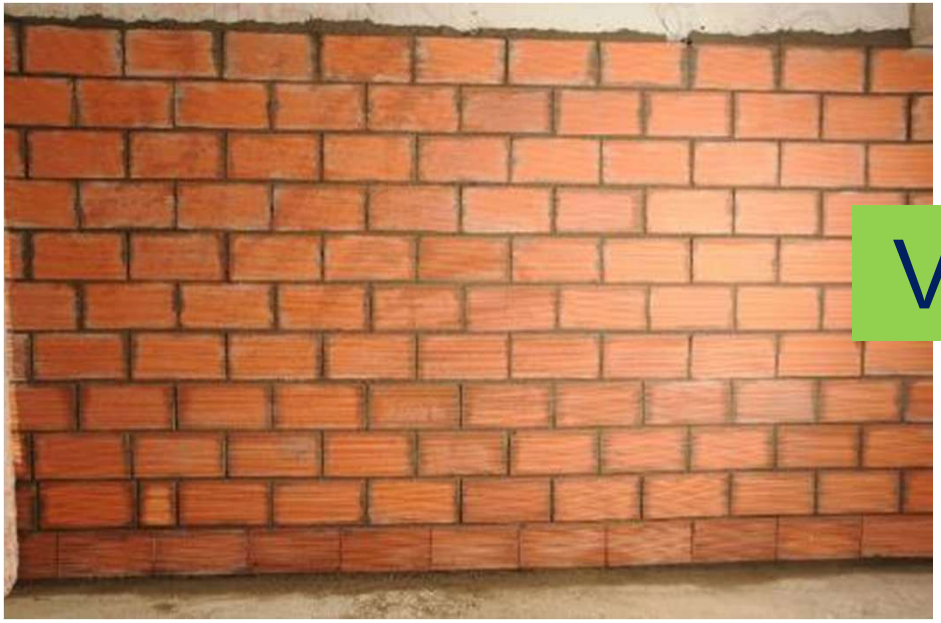

VS

DRYFIX . System

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- **Single Component: Dryfix can is ready to use & Easy to Transport**
- **Faster as compared to traditional masonry**
- **Stronger Adhesive bond between the Bricks**
- **Clean & Dry Construction Site: No Debris to be transported & Disposed**
- **Low Consumption of water : Curing is not required**
- **Enhances thermal protection through the elimination of thermal bridges in vertical & Horizontal Joints**
- **Saves time : Conduiting Chasing & Plastering can begin the very next day (after dryfix wall construction)**
- **Mason friendly system : Easy to assemble & Easy to apply**

Process Wall Construction

Conventional Vs. DRYFIX – Wall Constructed

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DRYFIX.System Coverage
1 Dry Fix Can = 9-10 Sq.m

Residential Apartment – Tiruvannamalai

Sastha Constructions – Pudukottai.

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VDB – Living Walls Bangalore DRY FIX System

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Our Clients

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RAMANIYAM
...dreams accomodated

ARUN EXCELLO

South India Shelters Pvt. Ltd.

Bhaggyam

SATTVA
TRUST, IT'S WHAT WE BUILD

VEL FOUNDATION

SRM GROUPS

Total Environment

K RAHEJA CORP

KRC HOUSING

GEOJIT BNP PARIBAS Savings & Investments

RR HOUSING (INDIA) PVT. LTD
Delivering Happiness, Literally.

Sherna Properties
find yourself.

Highlights

- Excellent Thermal insulation
- NO CRACKS – Till date more than 30000 apartments completed
- Easy & Fast construction
- Wienerberger POROTHERM – International Brand recognition
- Value generation for the project
- Continuous On Site Technical support
- Training on best construction practices
- Long term strategic partnership

Thank you …

Looking forward for a long term relationship