



Rongjian Chemical Product Brochure



Acid-Resistant Brick

Pingxiang Rongjian Environmental Protection Chemical Packing Co., Ltd

DIRECTORY

▶ **Product Introduction**

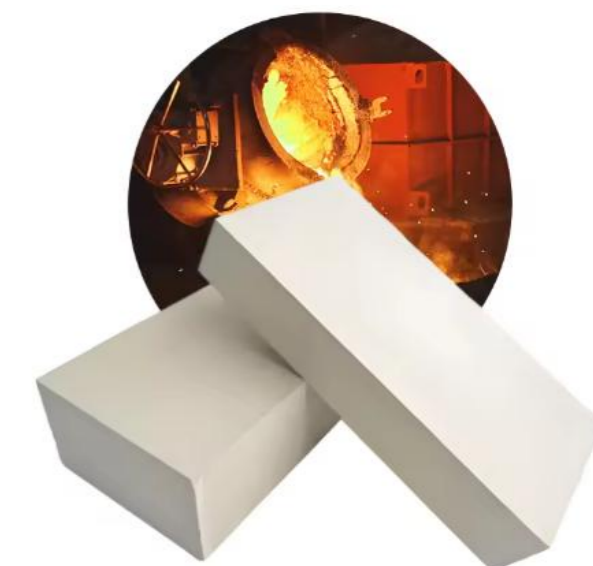
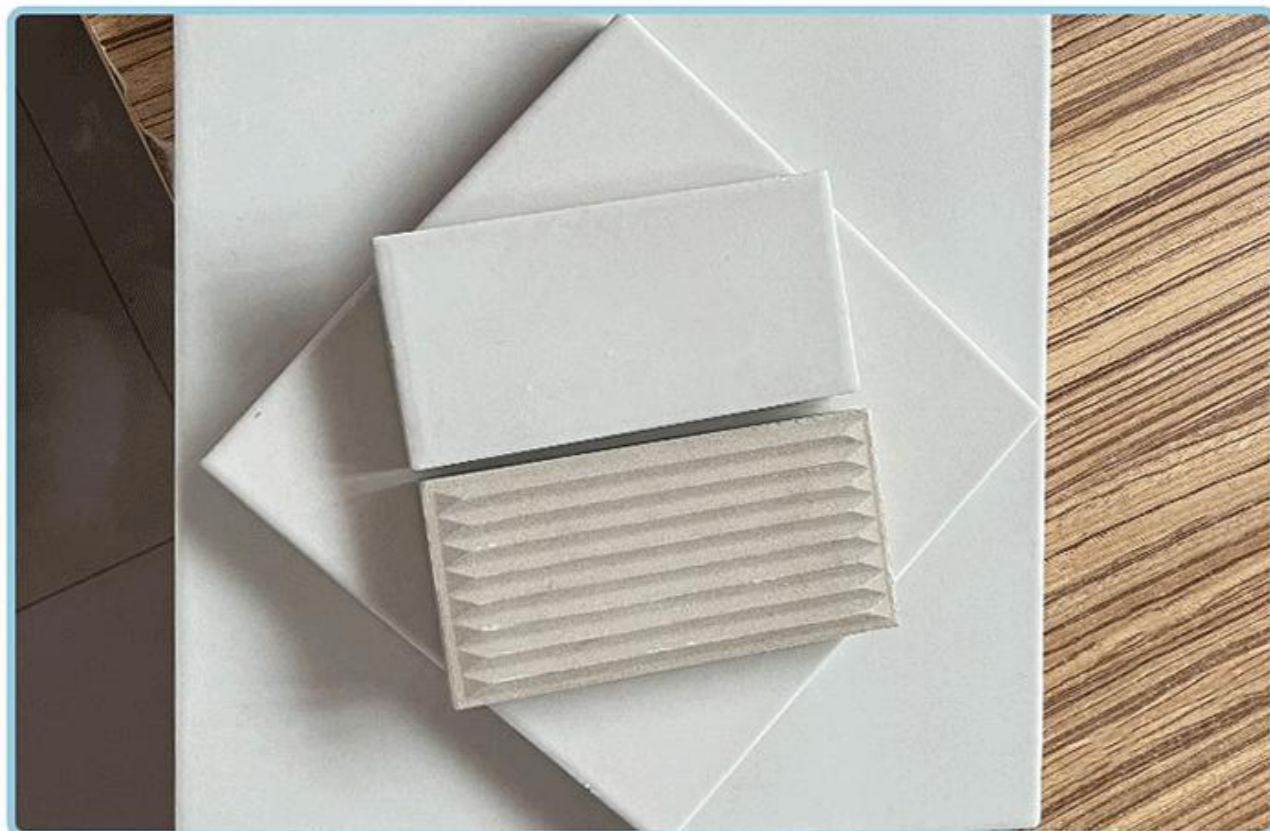
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▶ **Engineering Case**

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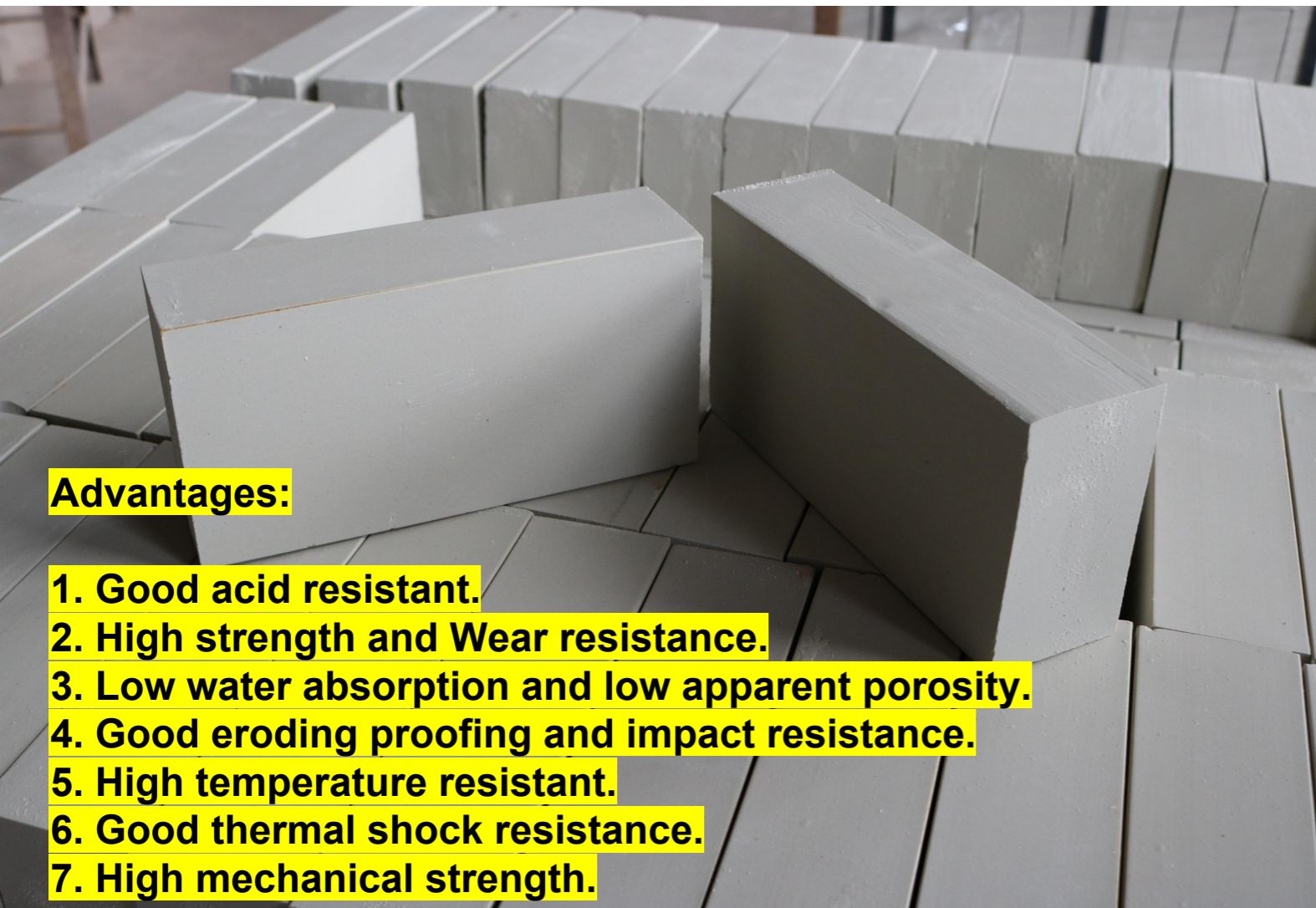
▶ **About Us**

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Technical Features

- (1) It exhibits excellent resistance to most inorganic and organic acids, corrosive gases such as chlorine, hydrogen chloride, sulfur dioxide and various acidic salt solutions.
- (2) High flexural strength (typically >39.2 MPa, measured values can reach 54 MPa), capable of withstanding equipment loads and impacts. High surface hardness (Mohs hardness can reach 7 or higher), very wear-resistant, suitable for applications involving material abrasion or pedestrian and vehicle traffic. The bricks have a compressive strength of >40 MPa and a low water absorption rate of ≤0.5%.
- (3) It can withstand rapid temperature changes without cracking (excellent thermal shock resistance), making it suitable for environments with large temperature fluctuations (such as chimneys and reactor linings).



Advantages:

1. Good acid resistant.
2. High strength and Wear resistance.
3. Low water absorption and low apparent porosity.
4. Good eroding proofing and impact resistance.
5. High temperature resistant.
6. Good thermal shock resistance.
7. High mechanical strength.

Product Specification



Main technical indexes of anti-acid brick acid proof ceramic bricks, acid resistant bricks

Item	Unit	Value	Standard
Bulk density	G/cm ³	2.31-2.4	HG/T3210-1986
Water absorption	%	0.2	GB/T8488-2001
Acid resistance	%	99.8	GB/T8488-2001
Bending strength	Mpa	≥58.8	GB/T8488-2001
Compressive strength	Mpa	≥80	HG/T3210-1986
Acute coldness/heat resistance	temperature difference 100°C	not crack after 1 time	GB/T8488

Main chemical composition of anti-acid brick, acid proof ceramic bricks, acid resistant bricks(%):

SiO ₂	69.8
Al ₂ O ₃	22.5
K ₂ O	2.7
Na ₂ O	0.95
CaO	0.82
MgO	0.12
Fe ₂ O ₃	0.05
IL	0.54
Acid resistance	99.8
Apparent Porosity	1.3
Loss on ignition (LOI)	0.1
Moh's hardness	7

We have been supplying acid-resistant bricks to contractors, so we can also provide Mortar

Why are they the “perfect match” ?



KPI Mortar (Potassium Silicate Mortar):

Binder: Aqueous solution of potassium silicate ($K_2O \cdot nSiO_2$).

Filler/ Aggregate: Powdered acid-resistant materials, primarily silica-based (e.g., quartz flour, andesite powder, cast stone powder).

Typical Mix Design: The binder-to-filler ratio is crucial, generally maintained at a mass ratio of ~3:7. This ensures complete coating of filler particles by the silicate binder to form a dense, acid-impermeable matrix after acid curing.

Size, Surface, Shape — All Customizable!



Unglazed
Acid-Resistant Brick



Standard Glazed
Acid-Resistant Brick



White Glazed
Acid-Resistant Brick



Standard
Acid-Resistant Brick



Tapered
Acid-Resistant Brick



Special Shapes
Acid-Resistant Brick

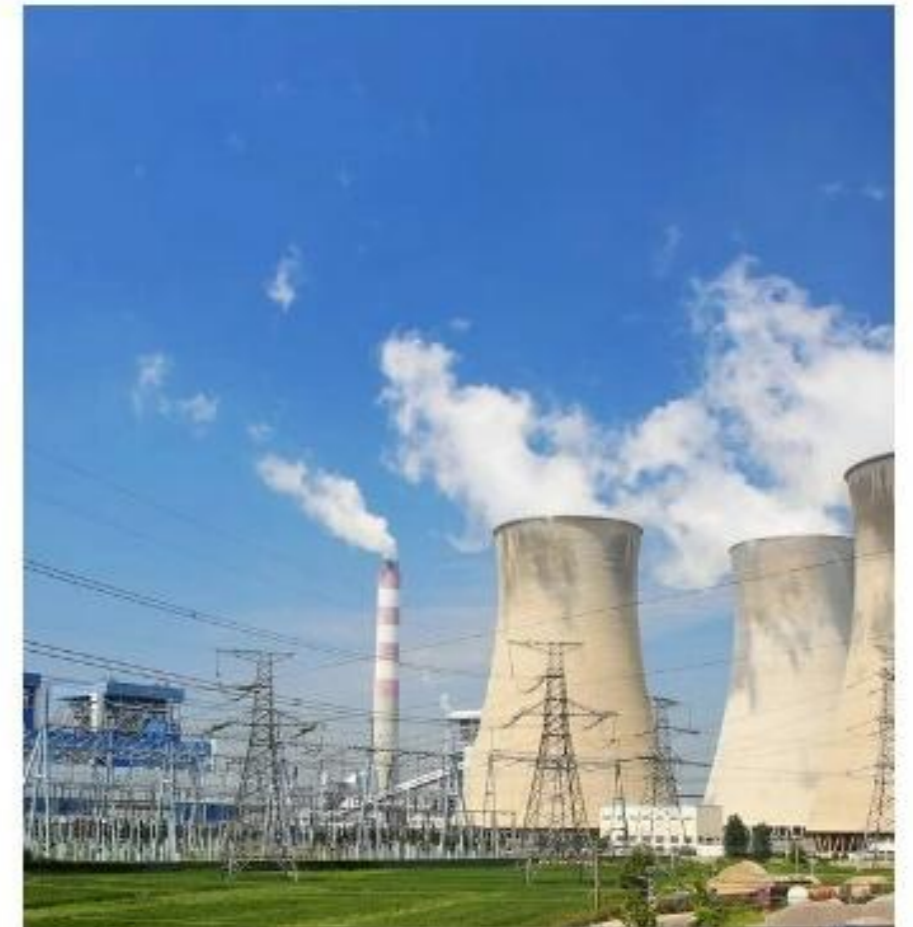


Application

Acid-resistant bricks are widely used in industries such as petroleum, chemical, pharmaceutical, food, papermaking, fertilizer, pesticide, chemical fiber, textile, metallurgy, and power plants, as well as for the anti-corrosion lining of towers, pools, tanks, and troughs.

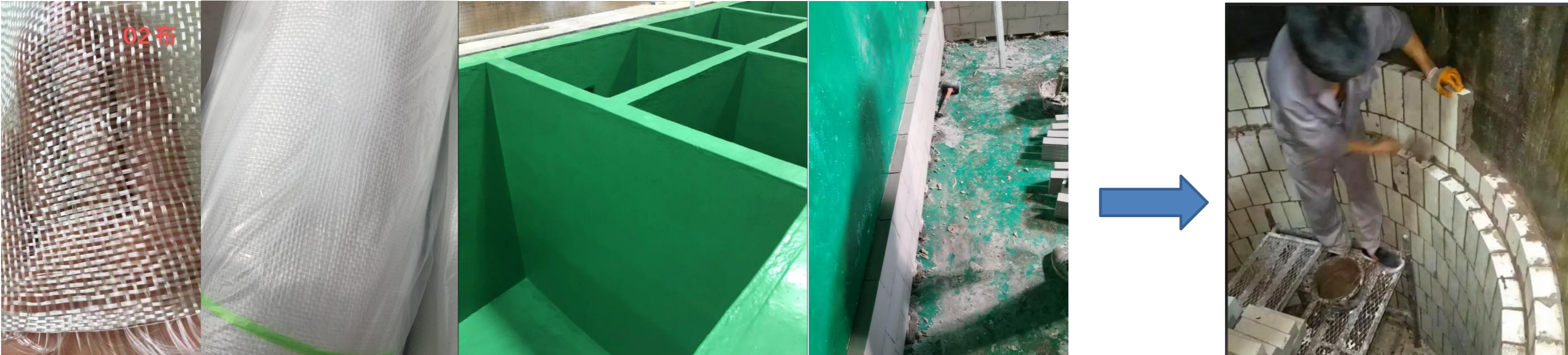
Play a vital role in wastewater treatment projects and open-air work sites. Acid-resistant bricks can withstand most media except hydrofluoric acid, hot phosphorus, and concentrated alkalis.

Excellent anti-corrosion properties against wet chloride water, hydrochloric acid, sulfuric acid, nitric acid, and alkalis of any concentration at room temperature.

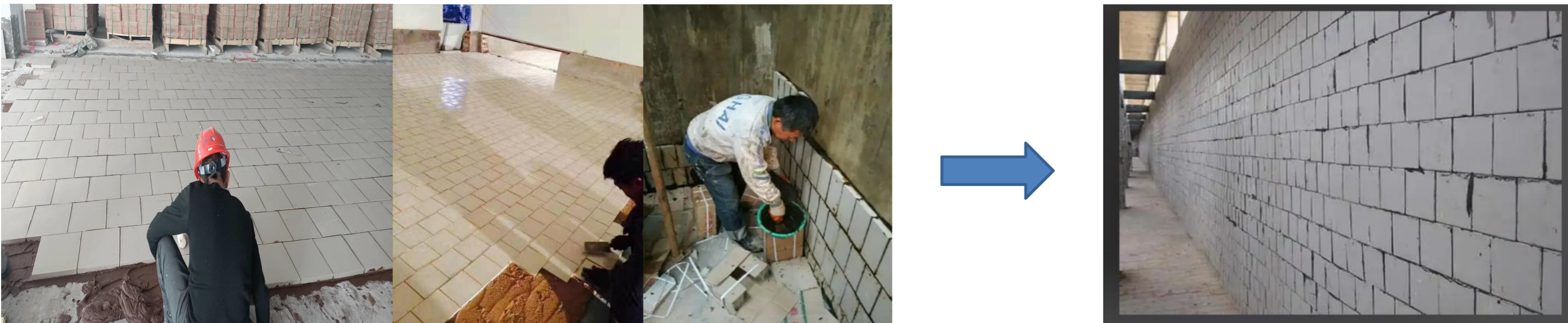


How to lay Acid-Resistant Brick?

Heavy Corrosion Protection

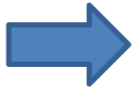
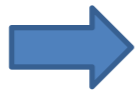


Light Corrosion Protection

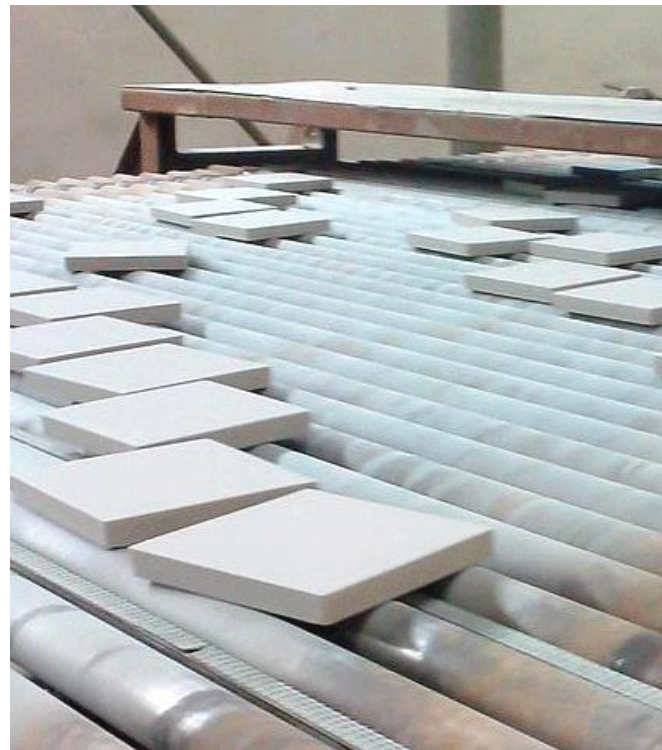


Engineering Case

INSTALLED IN A TRENCH
AT AN AMMONIA PLANT



Package



Production Workshop



Proof of Qualification



ABOUT US



Company Profile

■ Pingxiang Rongjian Environmental Protection Chemical Packing Co., Ltd

Established in 2010, Pingxiang Rongjian Environmental Protection Chemical Packing Co., Ltd. is a high-tech enterprise specializing in the R&D, production, and sales of chemical packing and environmental protection materials. After 14 years of rapid development, the company has become a leading global supplier of industrial packing materials, with products exported to over 100 countries and regions. We employ more than 300 staff, including nearly 100 technical professionals, forming a highly skilled and experienced R&D and production team.