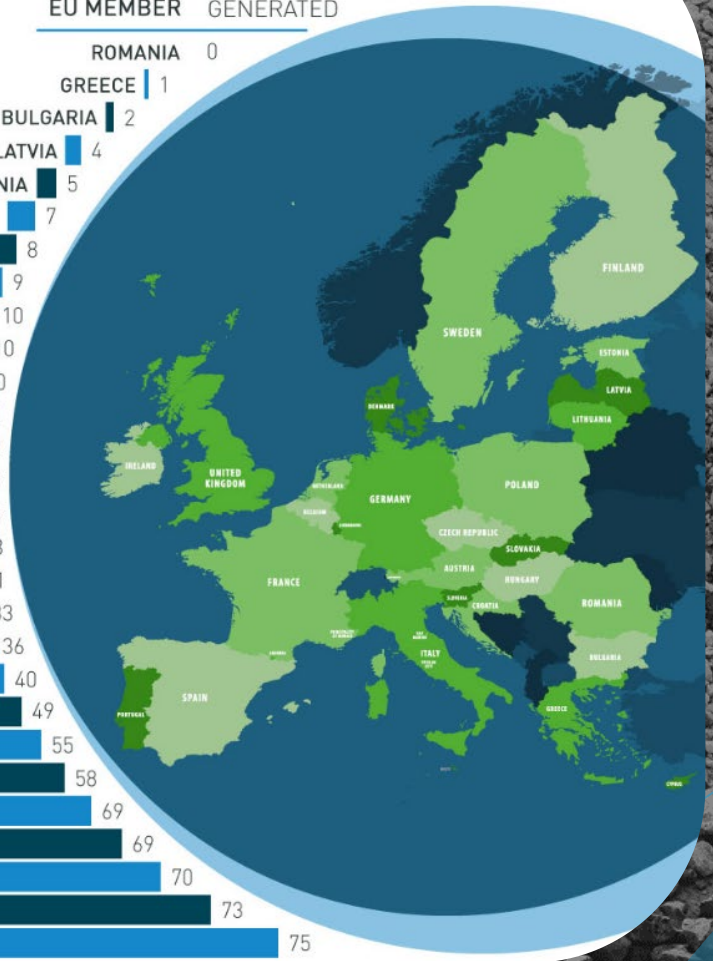
TREND

- High quality development
- Construction of ecological civilization
- Prefabricated building
- Circular economy
- KITO Green & Energy-saving new materials

(CDW)

CONSTRUCTION & DEMOLITION WASTE

EU MEMBER	CDW % OF WASTE GENERATED
ROMANIA	0
GREECE	1
BULGARIA	2
LATVIA	4
ESTONIA	5
SWEDEN	7
LITHUANIA	8
SLOVAKIA	9
POLAND	10
SLOVENIA	10
IRELAND	10
FINLAND	11
PORTUGAL	12
HUNGARY	23
CROATIA	24
SPAIN	28
BELGIUM	31
ITALY	33
CYPRUS	36
CZECHIA	40
UK	49
GERMANY	55
DENMARK	58
FRANCE	69
MALTA	69
NETHERLANDS	70
AUSTRIA	73
LUXEMBOURG	75



According to incomplete statistics in 2018 :

- In China , there is more than 3.5 billion tons of industrial solid waste each year
- Annual production of steel slag is 110 million tons, the utilization rate is less than 30%;
- Annual yield of red mud is 100 million tons, less than 5%.
- Annual production volume of copper slag is 20 million tons, with a historical total of 130 million tons.
- Annual production volume of tailings is 1.5 billion tons, and the comprehensive utilization rate is less than 25%.
- It is estimated that the annual output of China's solid waste ceramics is 0.5 to 1 billion tons.
  Building ceramics 350 million tons a year.

Using solid waste to re-produce foaming ceramic building materials, is an industry that can realize the bulk utilization of solid waste . This way can be consume a lot of solid waste .

Technology


Waste Ceramic


Steel Slag


Coal Gangue Stone


Channel Silt


Polished Slag


Mine Tailings


Coal Cinder


Press Mud

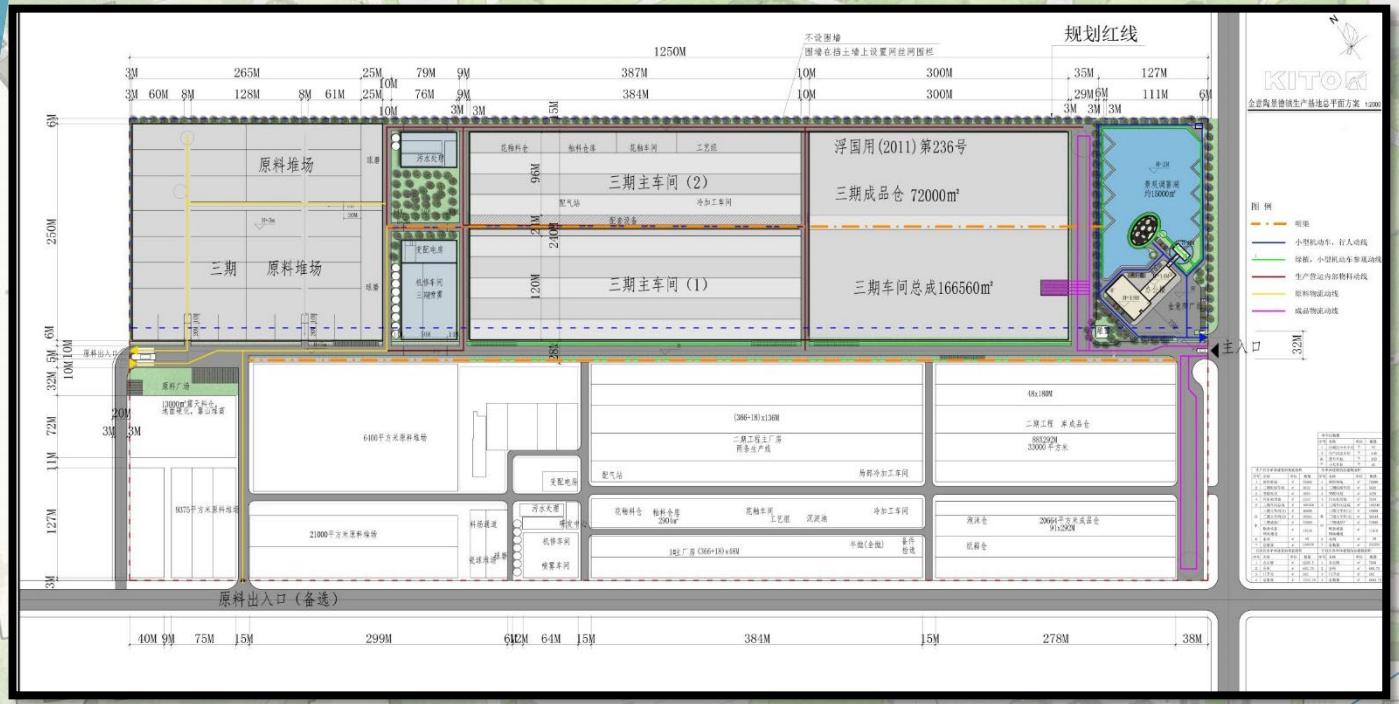
- Utilization rate of solid waste production ≥ 85%
- Primary cycle utilization = 100%
- Secondary Production rate of solid waste = 0%
- Due to the waste from cutting can be put in cycle production.

Foshan Production base

Annual Capacity 70 thousand CBM

New Production base in Jingdezhen

Two Production line for Foam Ceramic Annual Capacity 200 thousand CBM (Ready in 2021)



Production Process

roughcast board

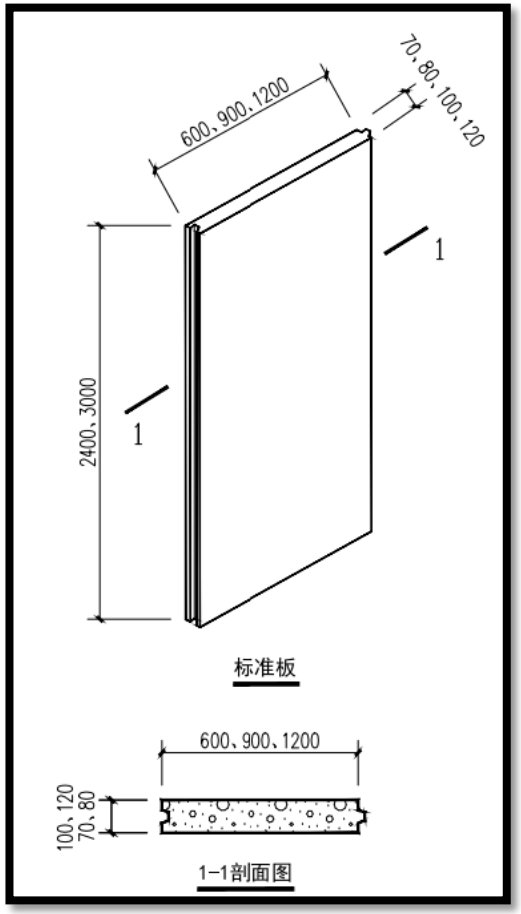
Cutting

Completed

Current situation of construction and interior decoration industry

1. High energy consumption of buildings and serious waste of materials;
2. The construction site is dirty and messy, and the surrounding environment is seriously polluted;
3. Low efficiency, long construction period, difficult modification
4. Soaring labor costs and manpower shortage

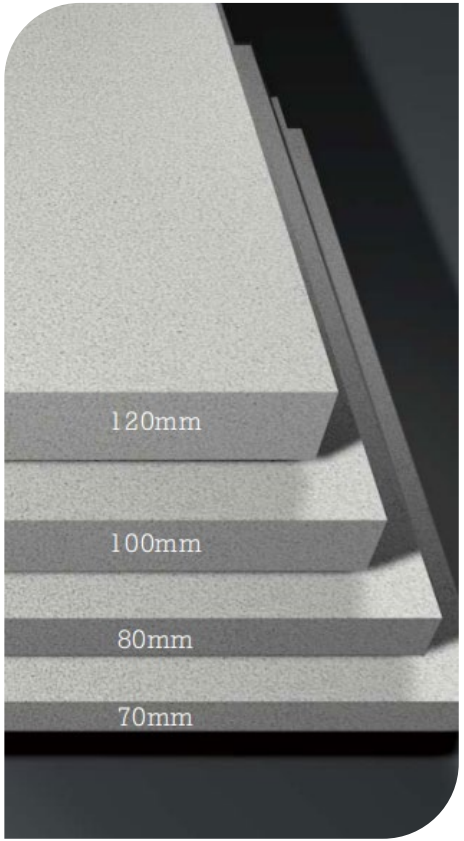
The standard version (70mm thickness not regular)

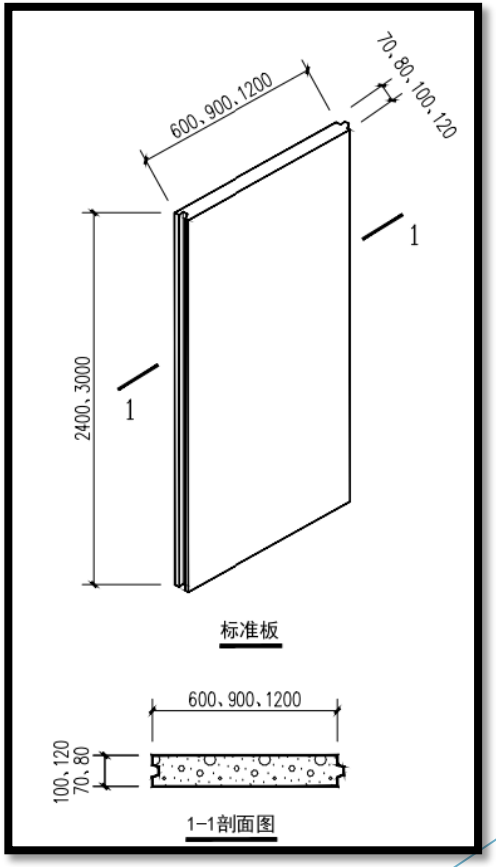


	Size Option (mm)
Thickness	70、80、100、120
Width	600、900、1200
Height	2440

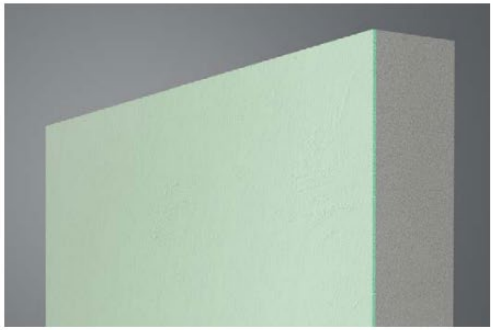
Product Systems

➢ Internal partition board (70mm thickness not regular)

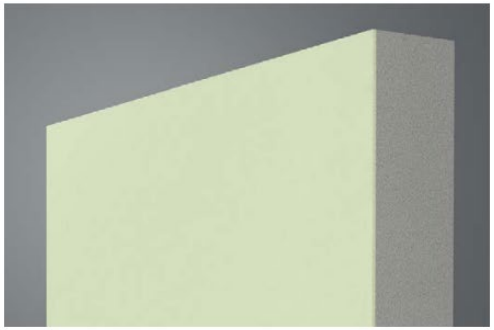




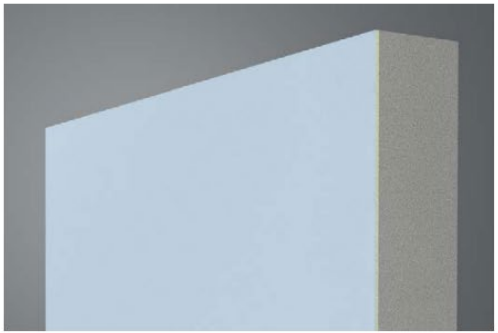
➢ Decor free integral board



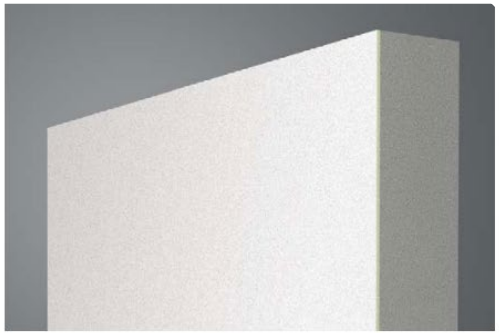
色彩涂料 免装饰一体板
Color coating decor free integral board



负离子涂层 免装饰一体板
Negative ion coating decor free integral board



除甲醛涂层 免装饰一体板
Formaldehyde removal coating decor free integral board



磨砂质面 免装饰一体板
Sanded surface decor free integral board

亮光面 免装饰一体板
Bright surface decor free integral board

石材复合一体板
Stone composite board

瓷砖复合一体板
Ceramic tile composite board

木材复合一体板
Wood composite board


色彩涂料
免装饰一体板

➢ Internal decor industrial board

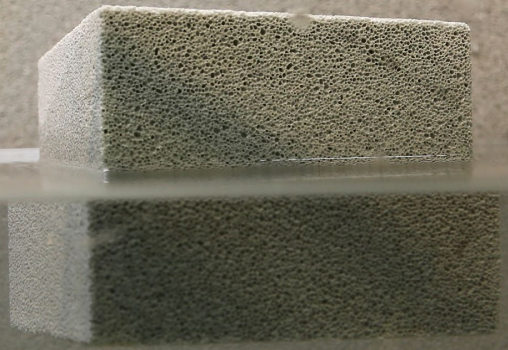
➢ Art engraving/Customized personality

Features

Light weight

1.2x2.4x0.08m
weight:92kg
Significantly reduced building load
logistics, lifting convenient and fast
save energy costs

32kg/m², 400kg/m³



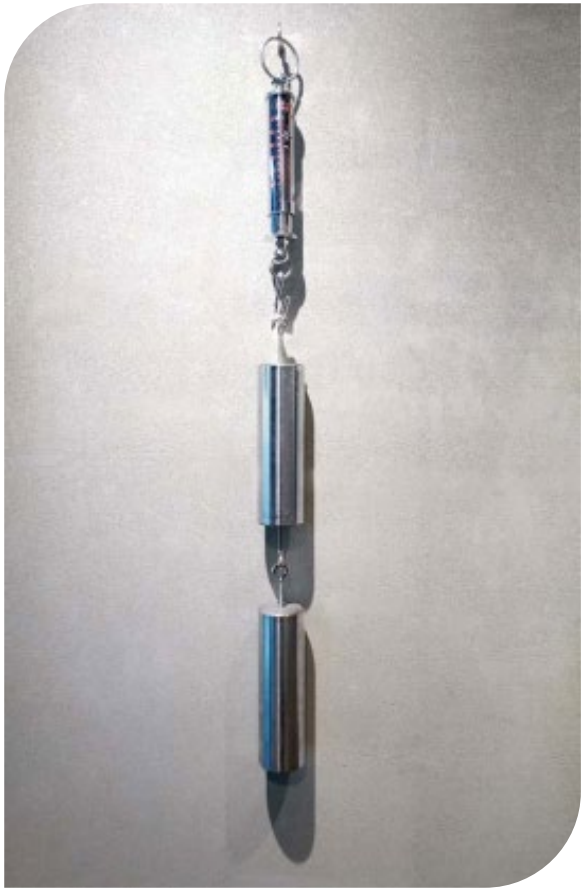
Compressive strength

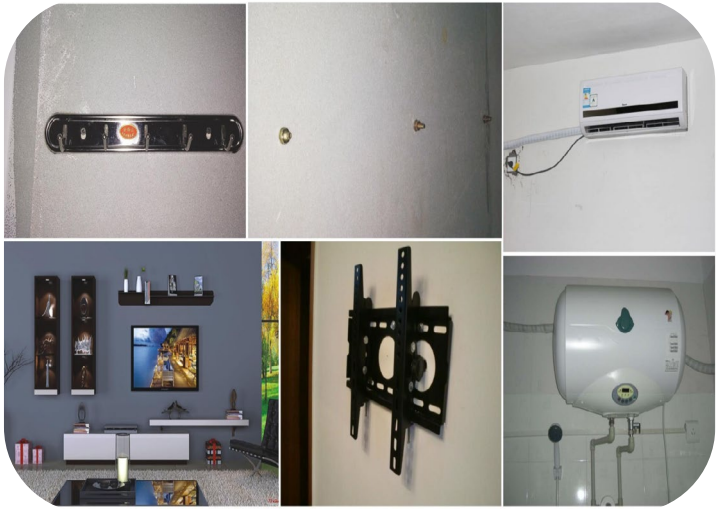
Thickness : 8~15CM

Compressive strength>5MPa

Strong hanging ability

Hanging force>900N





Thin Body

Compared to traditional building materials
Free 3-5% utility space
(About 15 meters of foam ceramic
1 meter cubed space saved)

Energy saving

保温隔热

Thermal Conductivity: 0.17

Comparison of thermal conductivity of the three materials

No cracking

High temperature buring

No shrinkage

Completely solve traditional partition crack problem

Durable

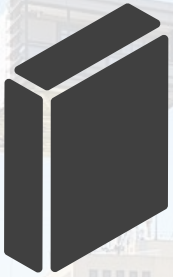
Resistance to acid and alkali
Corrosion resistant
Freezing-thawing resisting
Thermal stability

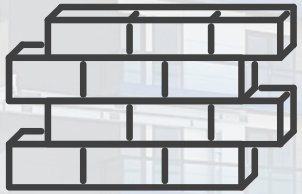
Fire prevention

Maximum fire rating: A1

Ensure building and property safety

Quick Installation





1PCS foam ceramic = 205PCS Traditional grey sand brick

50m² /people/day VS 4m² /people/day

Comparison of performance of different wall materials

1.Performance of different wall materials

Wall Materials / Index	Autoclaved aerated concrete block	Lightweight slats	KITO foam ceramic
Colume density (KG/m³)	600-800	500-800	380-430
Compressive strength (MPa)	4	3.5	6-8
Sound insulation of air (DB)	≥35 (100mm)	≥35 (90mm)	≥35 (70mm)
Single point hanging force (N)	800	800	1200
Dry shrinkage value (mm/m)	0.8	0.3-0.6	0.10
Softening coefficient	≥0.85	≥0.80	≥0.93
Fire endurance (h)	≥3.7 (100mm)	≥1 (90mm)	≥1 (70mm)
Heat conductivity coefficient (W/mk)	0.20	0.24	0.15
WA (%)	8-12	≤4.2	≤1.0

2.Steel capacity for main structure

Category / Index	**Foam Ceramic** (2400x1200x80)	**Concrete Block** (600x200x100)
Amount of steel used (t)	485.31	493.49
Covered area (m^2)	10462.0	
Steel content (kg/m^2)	46.39	47.17
Difference (kg/m^2)	0.83	

Engineering Application

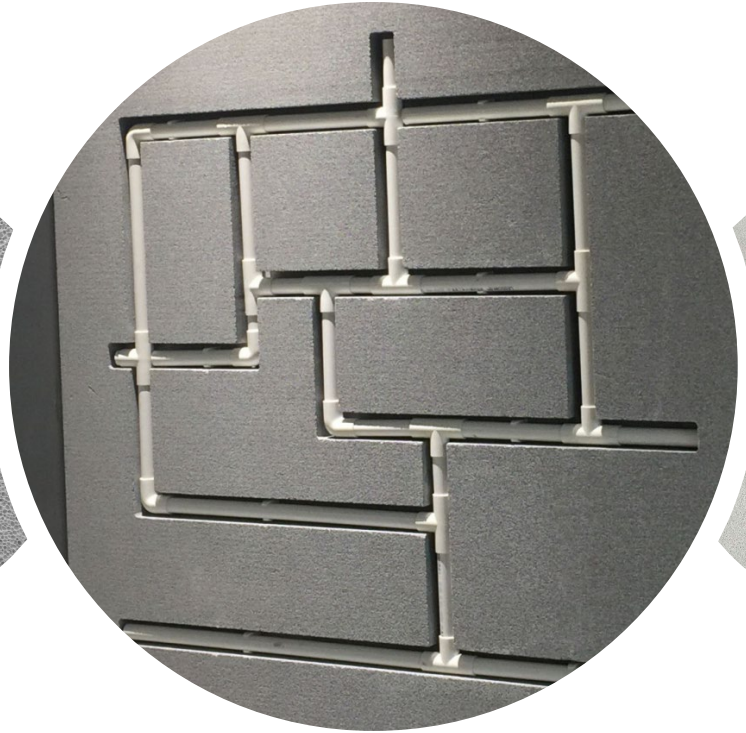
Airport

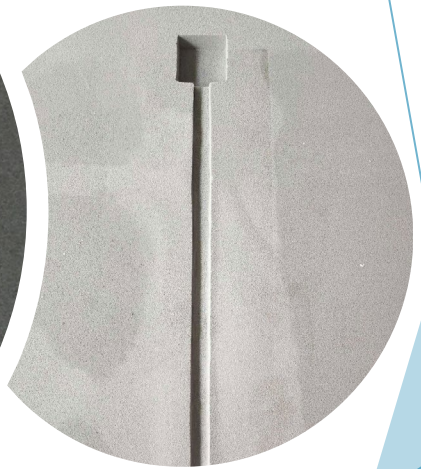
Office

Hotel

School

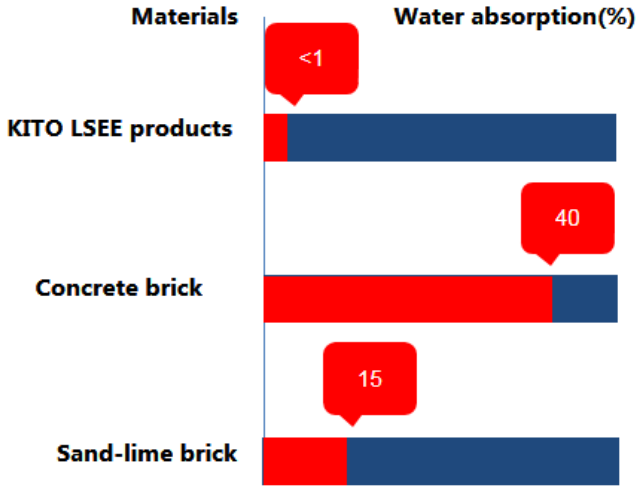
Pipeline preset





Unit Bathroom mock-up room

Waterproof Application Presentation

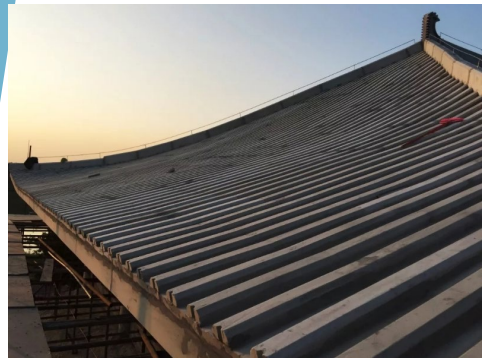


External wall maintenance structure

Background

Deco

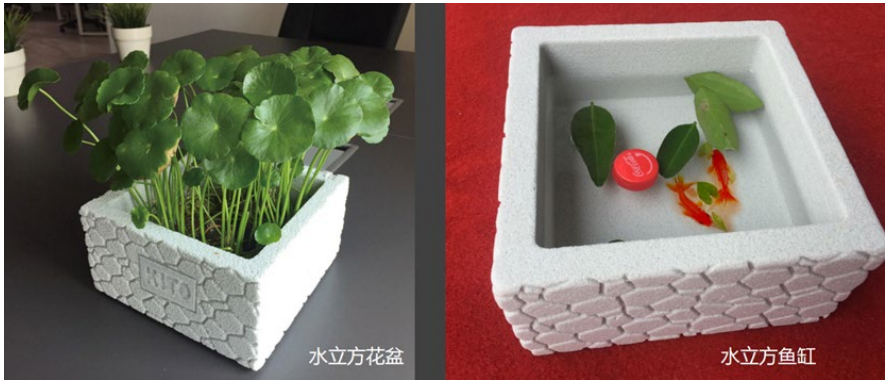
Celing/Carving of outdoor municipal gardens




辰
CHAN-LEE
Art-Bed
Drink- Food

Rooftop

Creativity




Thank you