

My Own Architecture, My Own Design

DESIGN CONCRETE PANEL



Hankook Chemical & System CO.,LTD



DESIGN CONCRETE PANEL

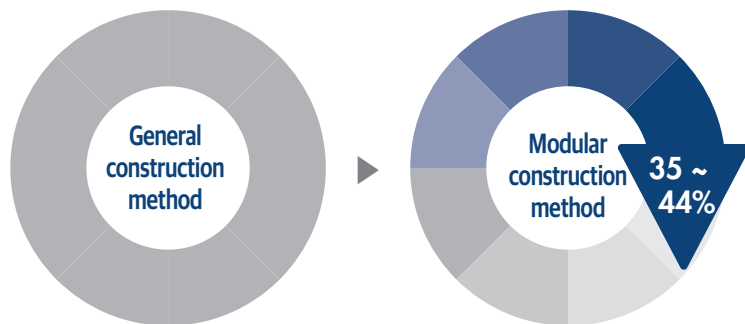
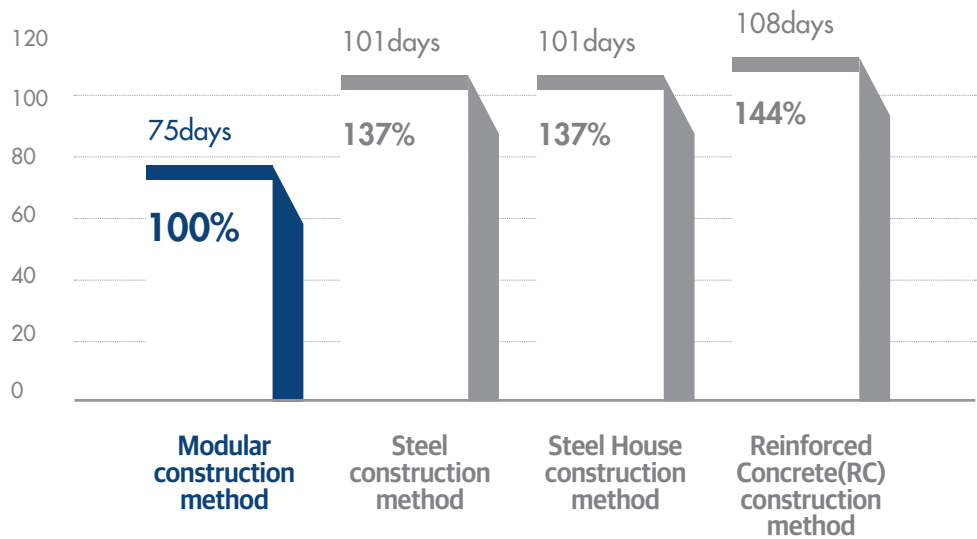
Product description

(Differentiated concrete panels combined with various 3D designs and colors)

Design concrete panels are a construction technology that involves the prefabrication of panels so that only installation is required on site. Compared to the exposed concrete construction technique of general reinforced concrete pouring, it saves costs by shortening the construction period, and also reduces maintenance cost by preventing quality problems and technical problems such as defective exposed concrete that may occur with the exposed concrete method of on-site construction.

Product characteristics

- ✓ Construction costs can be reduced by approximately 30% through shortening the construction period by 35-44% compared to existing methods.
- ✓ We have secured the technology to perfectly replicate various 3D designs based on our 40 years of accumulated experience in tire manufacturing template rubber application technology. We satisfy the various needs of customers who pursue artistic beauty with high-strength concrete panels that realize various strengths and colors.



35~44% reduction in construction period compared to the existing method.

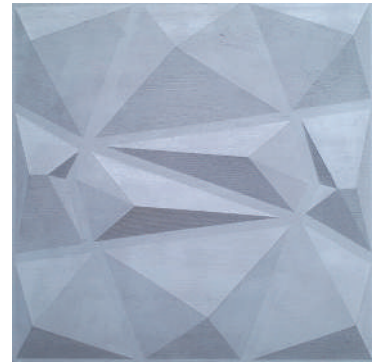
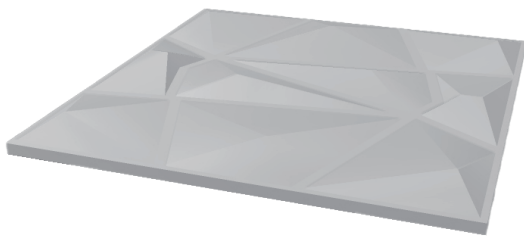
PEPRESENTATIVE DESIGN

Product qualification

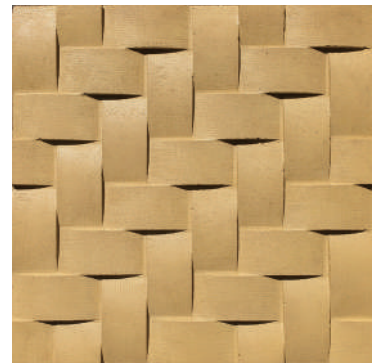
- ✓ Specification (2 types) : 500 x 500mm, 600x900mm
- ✓ Thickness (2 types) : HPC(40~50Mpa) ▶ 35mm
UHPC(60~100Mpa) ▶ 30mm
- ✓ Color (4 types) : Gray, Yellow, Red, Green
- ✓ Design (3 types) : Diamond, Bamboo basket #1, Bamboo basket #2

Designs and specifications can be custom-made and customized according to customer requests

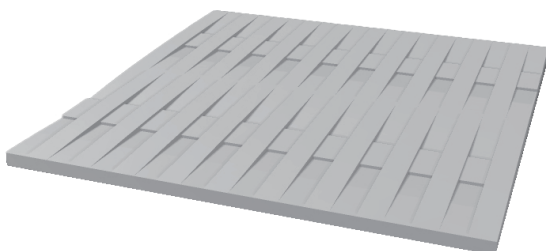
Diamond



Bamboo basket #1



Bamboo basket #2



CERTIFICATE

Corporate Certification



▶ ISO 9001



▶ ISO 14001



▶ INNO-BIZ



▶ MAIN-BIZ



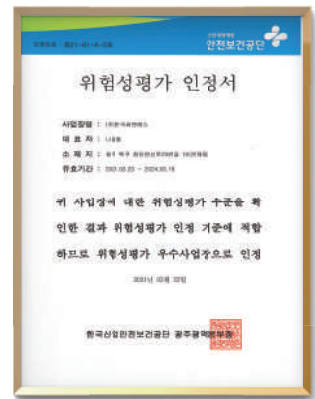
▶ Parts & Materials specialized Company



▶ Venture Company



▶ R&D Center



▶ Risk assessment certificate

Patent / Award history



▶ Patent for rubber composition for forming exposed concrete panels



▶ Korea Invention Promotion Association Patent Silver Award



▶ Exhibited at the 2021 Gwangju Design Biennale



▶ Top 10 Patent Certificates for Commercialization in Gwangju

CONSTRUCTION CASES

#3D panel #wall #building exterior wall #building interior wall #other construction available



PANEL DESIGN (Products Available)

* All designs can be applied as interior and exterior materials.

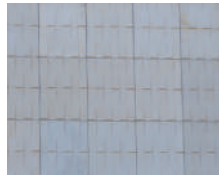
* Designs and specifications can be custom-made and customized according to customer requests

Product qualification

✓ Specification (2 types) : 500 x 500mm, 600x900mm

✓ Thickness (2 types) : HPC(40~50Mpa) ▶ 35mm
UHPC(60~100Mpa) ▶ 30mm

✓ Color (4 types)



Gray



Yellow

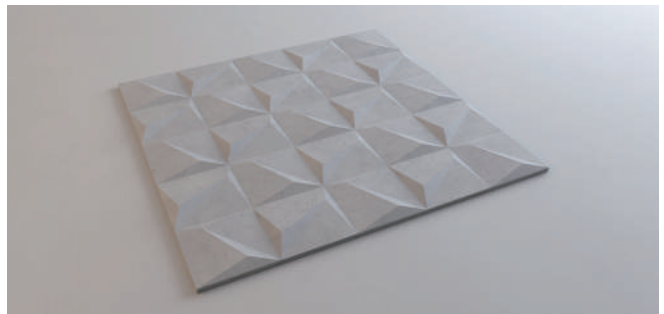


Red

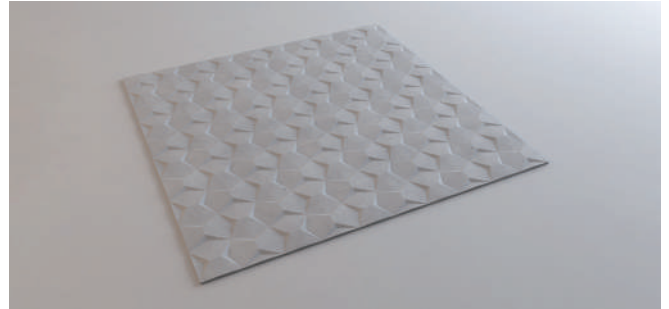
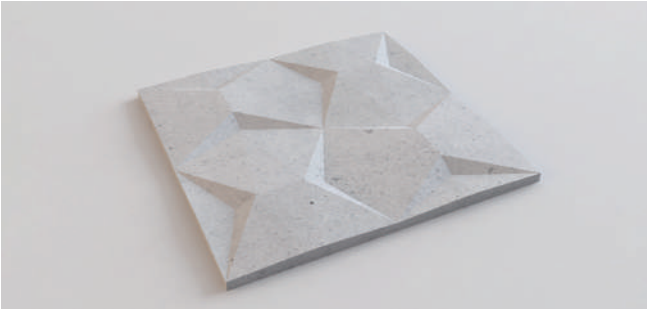


Green

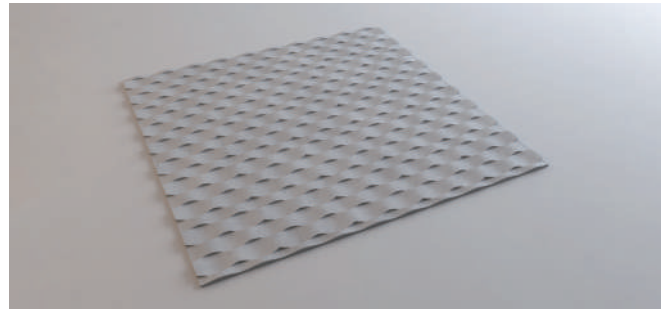
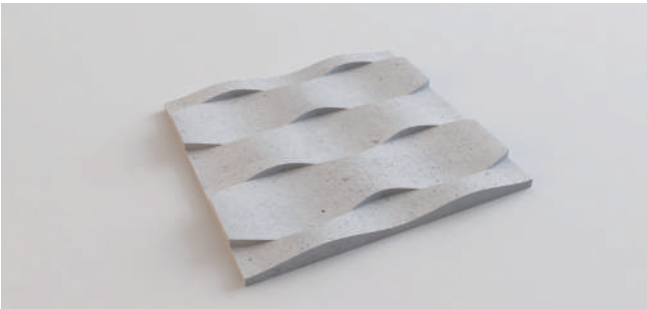
Pattern 01



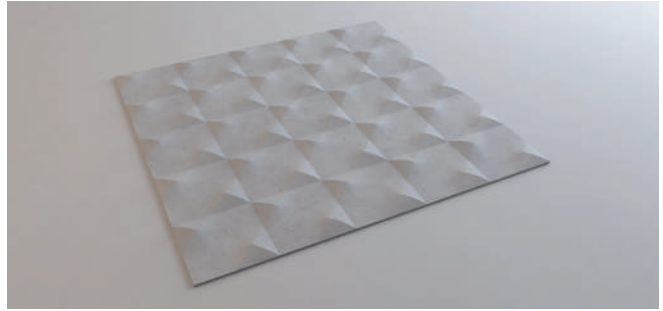
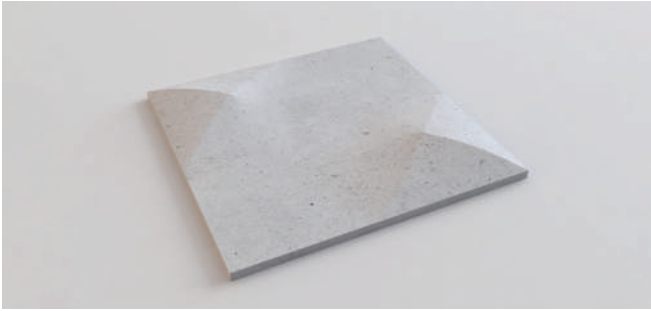
Pattern 02



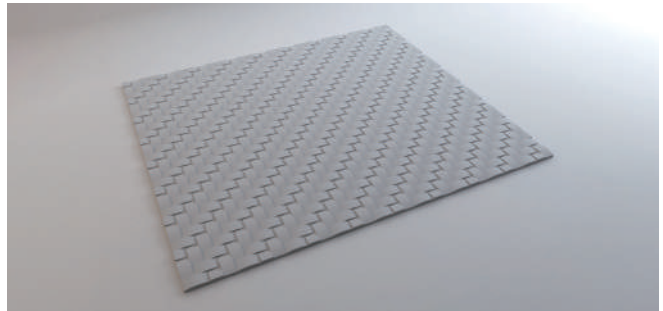
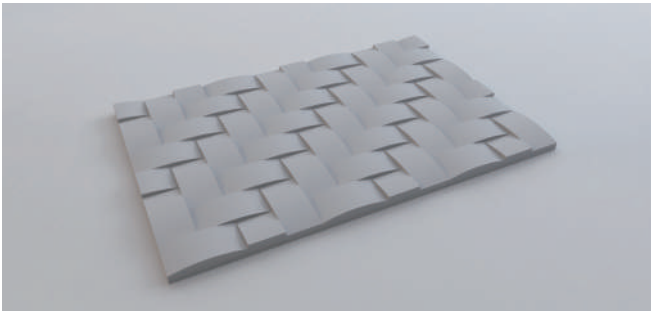
Pattern 03



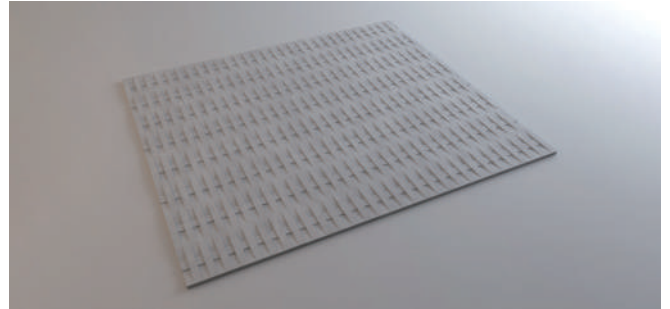
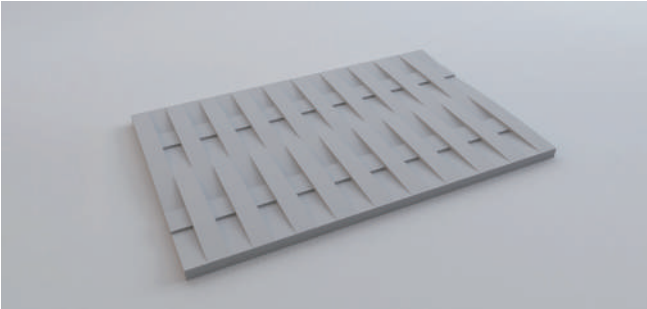
Pattern 04



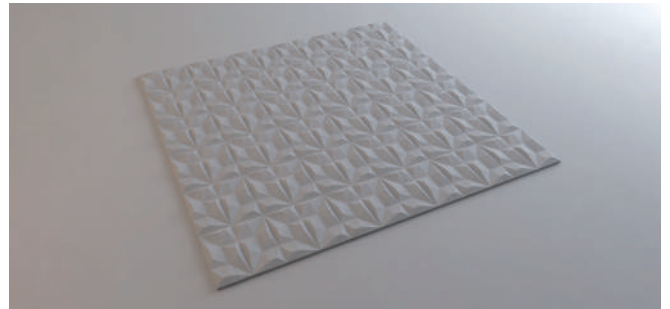
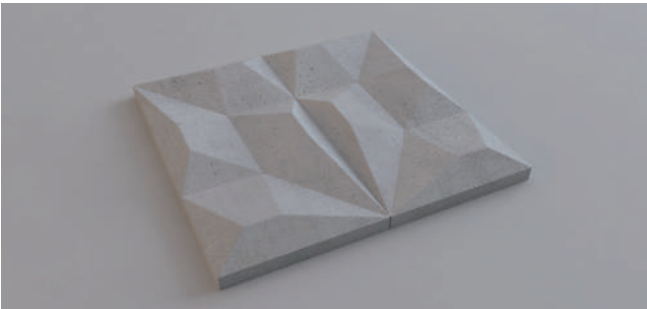
Pattern 05



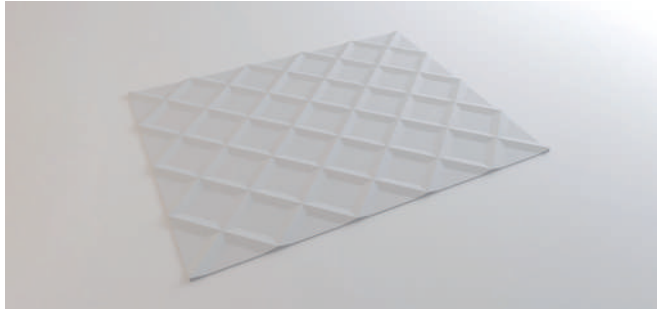
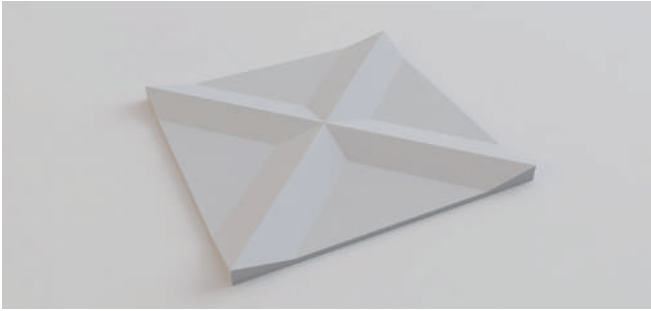
Pattern 06



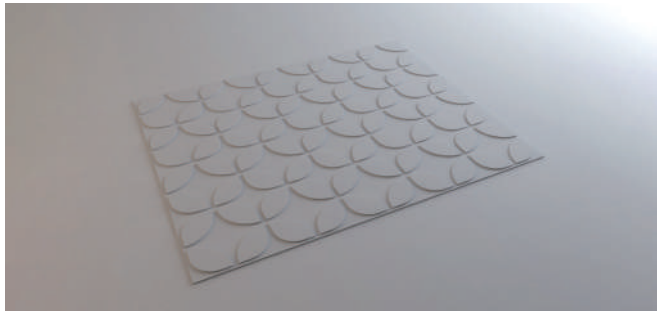
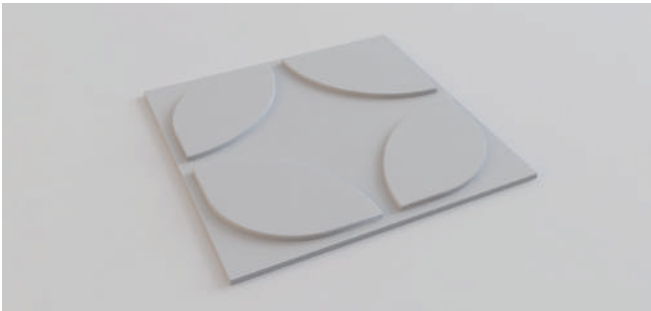
Pattern 07



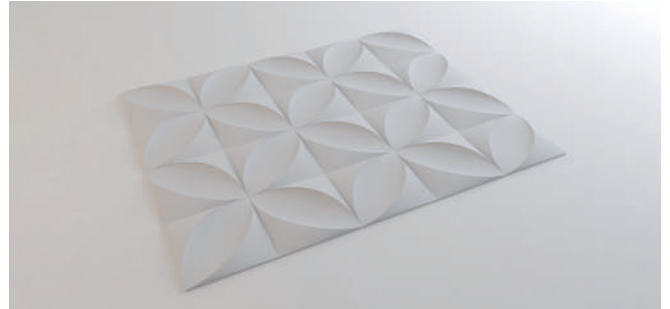
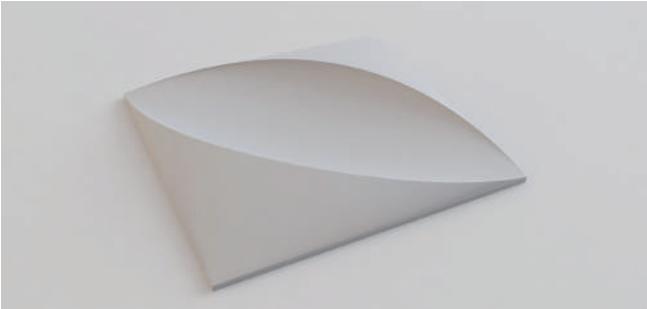
Pattern 08



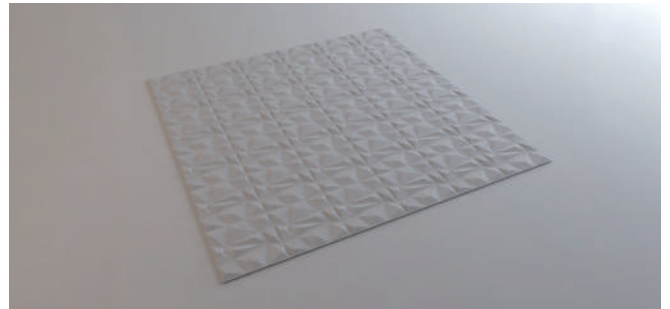
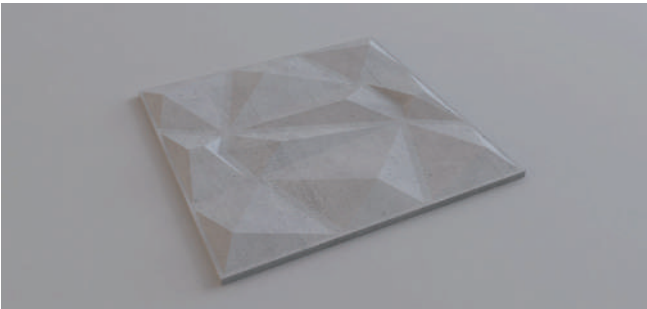
Pattern 09



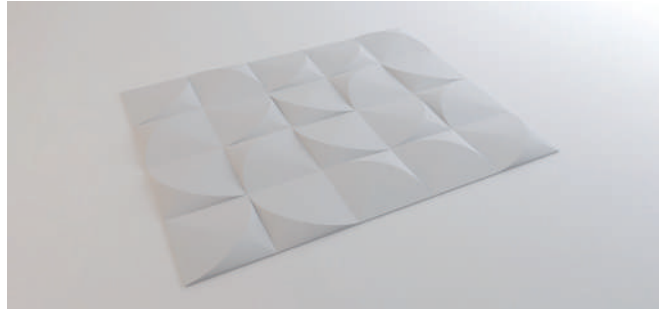
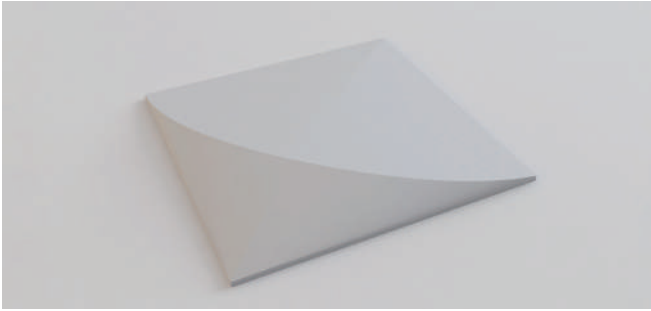
| Pattern 10



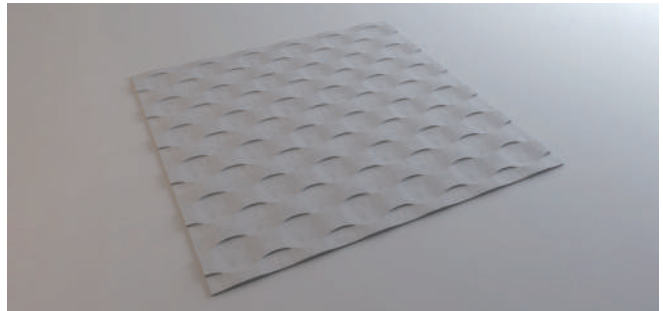
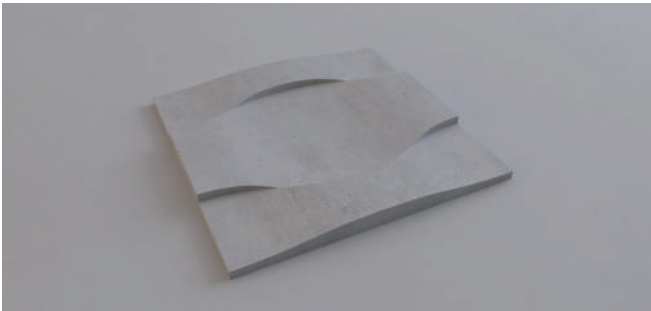
| Pattern 11



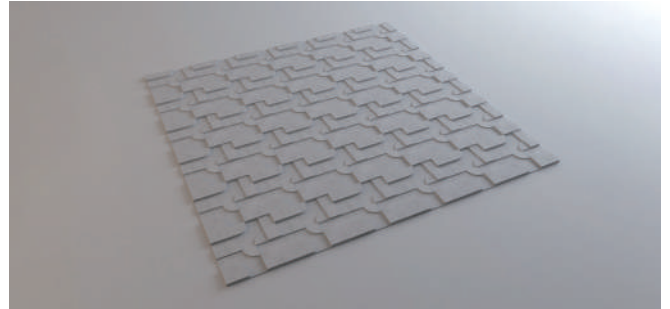
Pattern 12



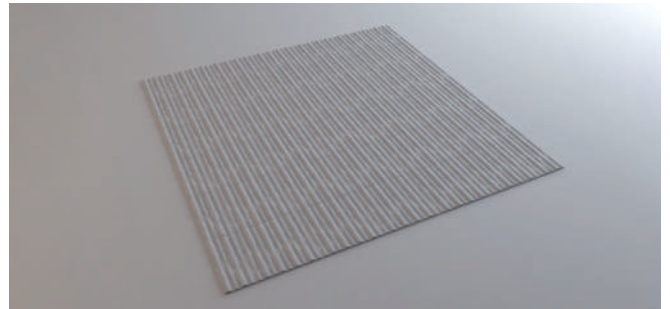
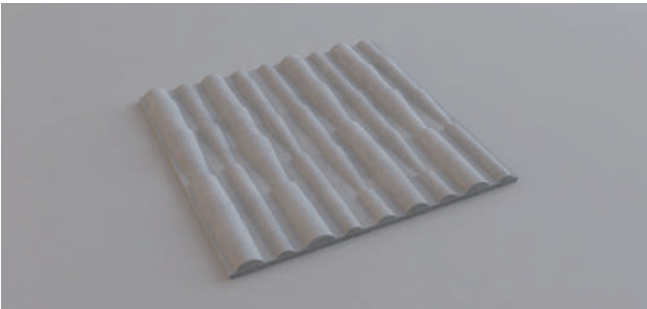
Pattern 13



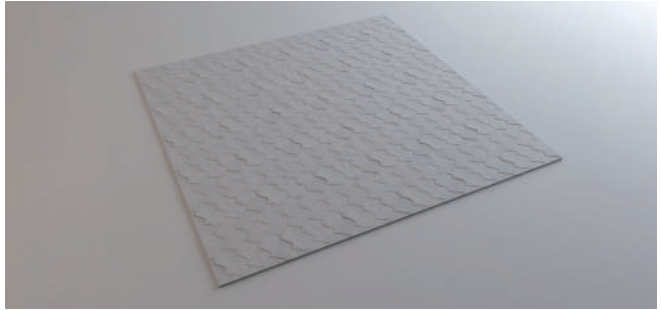
| Pattern 14



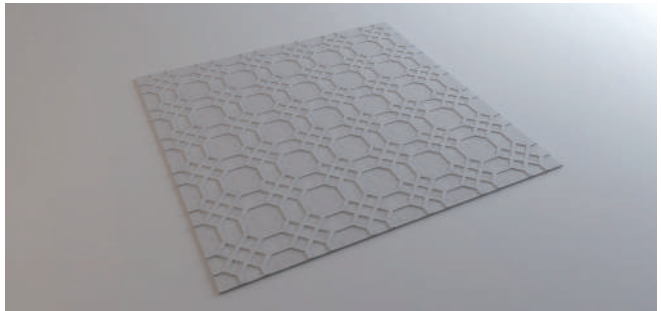
| Pattern 15



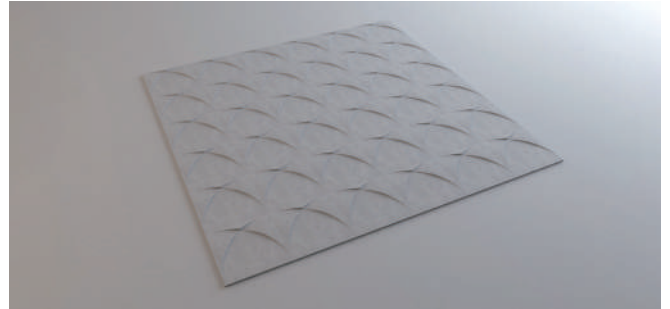
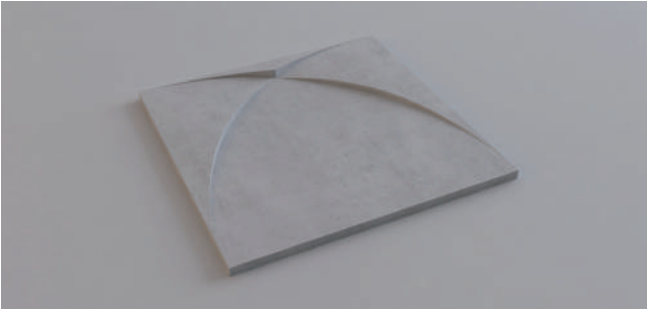
Pattern 16



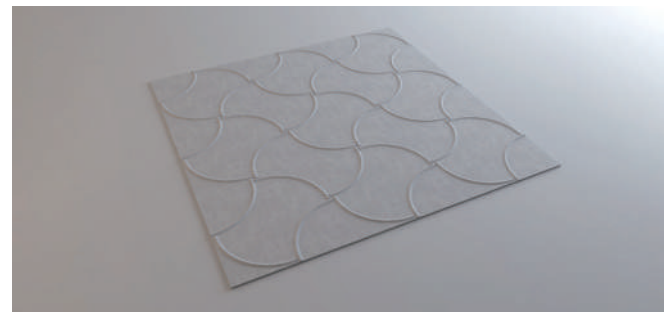
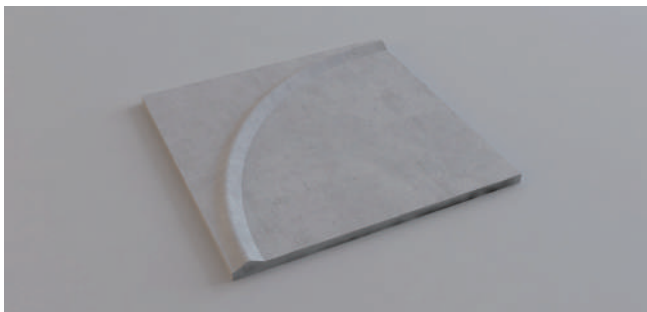
Pattern 17



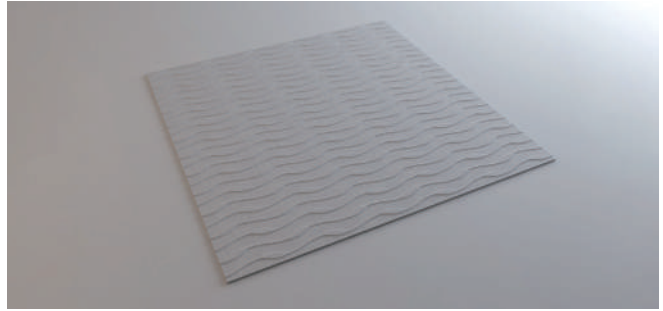
| Pattern 18



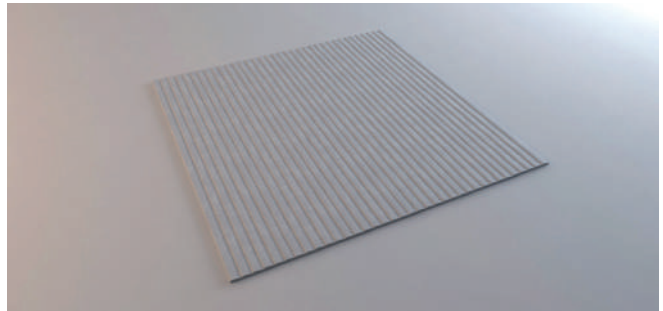
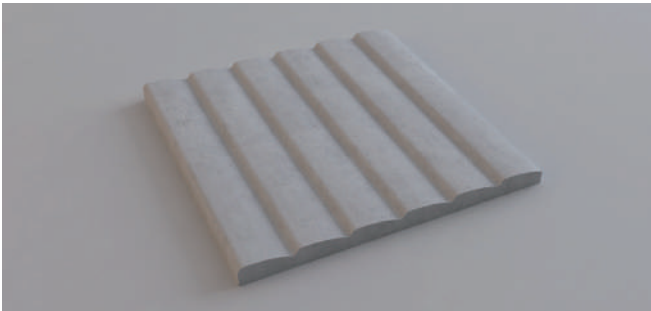
| Pattern 19



Pattern 20

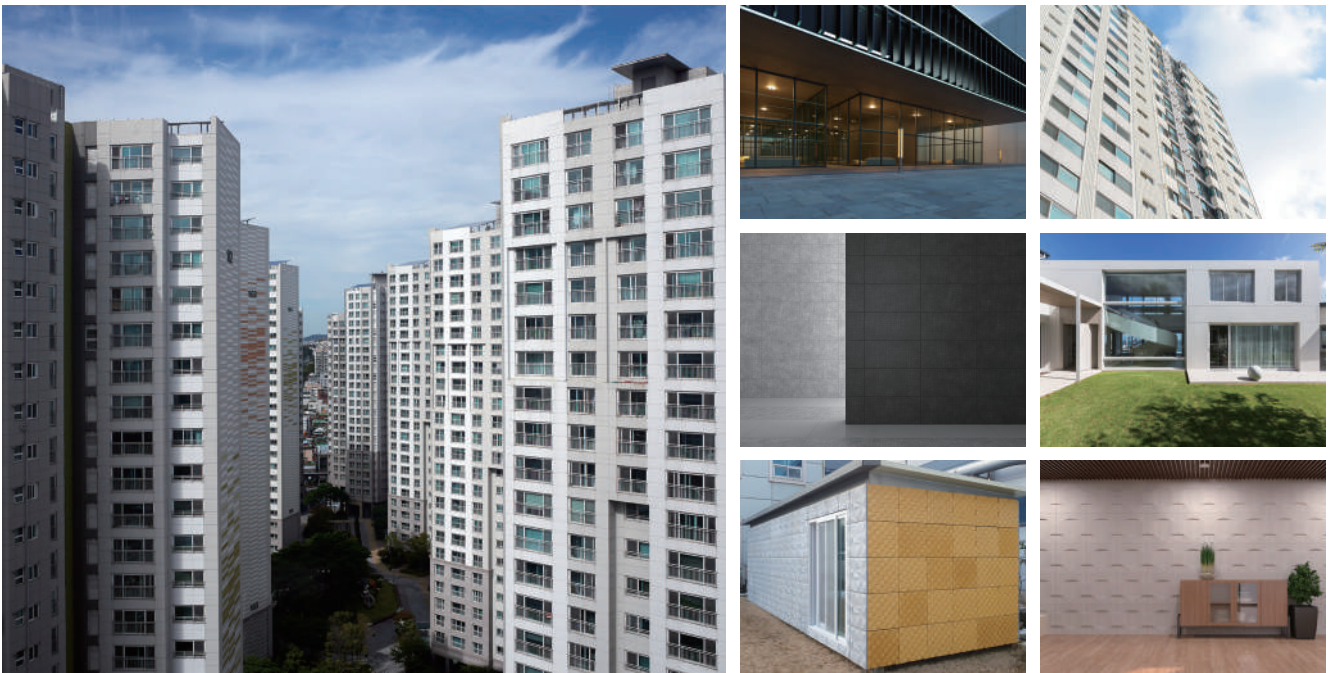


Pattern 21



Buildings subject to panel application

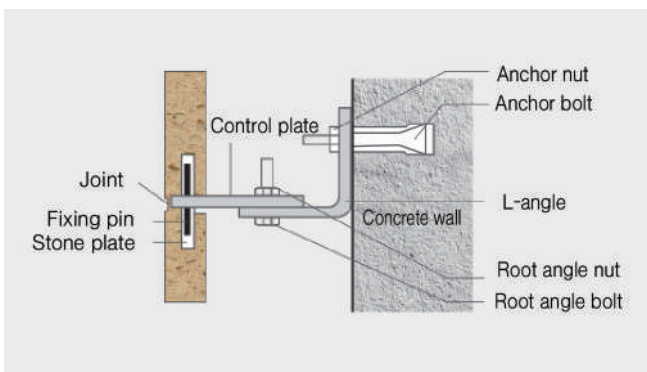
1. The interior/exterior finishing materials can be applied to constructions installed on interior and exterior walls using anchors and truss
2. It can be applied to buildings such as neighborhood living facilities, apartments, hotels, condos, hospitals, schools, villas, houses, etc.



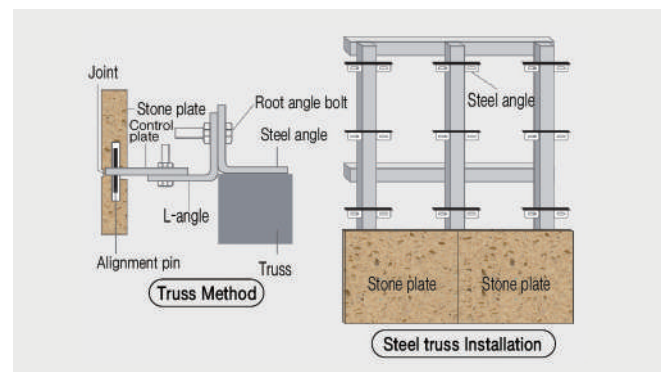
Panel construction methods

Examples and cases

Anchor dry construction method



Truss dry construction method



Management and precautions

DESIGN CONCRETE PANEL

Product management method

1. Quality management

- ① When bringing materials to the site, they should be inspected for cracks, damage, scratches, and dimensions in the presence of the construction supervisor, and brought into the site after passing the test
- ② Design concrete panels are 3D design products, which enable various design combinations depending on the direction of attachment. Therefore, check that the design is correct prior to installation through the simulation of the combination.

2. Post-management after construction

- ① Design concrete panels are water-repellent coated when shipped, but after completing construction on site, it is recommended to clean the surface and apply an additional water-repellent agent as a finish.
- ② Design concrete panels must be treated with surface water repellent every 2 to 3 years after construction is completed.

Precautions for moving and storage

1. Loading and moving

- ① Design concrete panels are 3D design exposed concrete panel products that should be stacked vertically at an incline.
- ② Horizontal loading is also possible, but be sure to insert fillers (Styrofoam, foam paper) between products to prevent deformation of the products due to impact or friction between products during movement and storage.

2. Storage

- ① The product should be stored in a cool place away from direct sunlight, avoiding high temperature, heat, and rain.
- ② Since the panel is treated with water repellent only on the exposed surface, rainwater blocking work must be done to prevent rainwater from penetrating the panel when it rains during construction to prevent efflorescence and product contamination.



Eco-friendly Water-based Repellent For Design Concrete Panel



Product Features

- An eco-friendly, water-based repellent specifically developed in-house for our permeable design concrete panels.
- Suitable as a finishing agent for interior and exterior surfaces of concrete structures, offering excellent resistance to water, weather, abrasion, and pollution, while maintaining breathability, gloss, and color protection.
- Can be used on a wide range of inorganic construction materials besides concrete structures, such as red bricks and stone, for various exterior cladding applications.
- Formulated with silicone and acrylic resins, providing strong adhesion without leaving any sticky residue on surfaces.
- The milky white liquid does not alter the color of the architectural structure.
- Ensures superior surface water repellency and exceptional finishing functionality.
- Exhibits excellent initial and long-lasting water repellency.
- Strong adhesive properties and resistance to weather.
- Convenient application and suitable for a wide range of purposes.
- Being water-based, it's easy to use and promotes excellent breathability for internal moisture in structures.
- Prevents cracking due to freezing at low temperatures and efflorescence in alkaline environments.

Applications

- Interior and exterior walls of exposed concrete.
- Red bricks, stones, tile grouts, dryvit.
- Mortar, cement, slate, clay tile slab roofs, etc.
- Ideal for water repellency and aging prevention on wooden building exteriors.

