Integrated All-Function Exterior Wall Art Coating

All-Function Art Coating

Leveling & Decoration / Waterproof & Moisture-Proof / Tough & Anti-Cracking / Lightweight & Safe / Sound Insulation & Noise Reduction / Thermal Insulation / Solar Heat Reflection

Innovative Anti-Cracking Theory, Pioneering the Era of Thick, Flexible, and Multi-Functional Coatings!

1 Launch All-Function Art Coating

Pioneering a new era of thick, flexible, multi-functional, and integrated exterior wall coatings!

Global Launch of Thick Multi-Functional Exterior Wall Art Coating

Flexible Anti-Cracking, Lightweight & Safe, Thermal Insulation

Global Launch of Thick Multi-Functional Exterior Wall Art Coating

10 Young Scientists from University of Science and Technology of China (USTC)

R&D Period: 2019-2022

Multi-Functional Exterior Wall **A**rt **C**oating with **S**ound Insulation, Noise **R**eduction, and **S**olar Heat **R**eflection

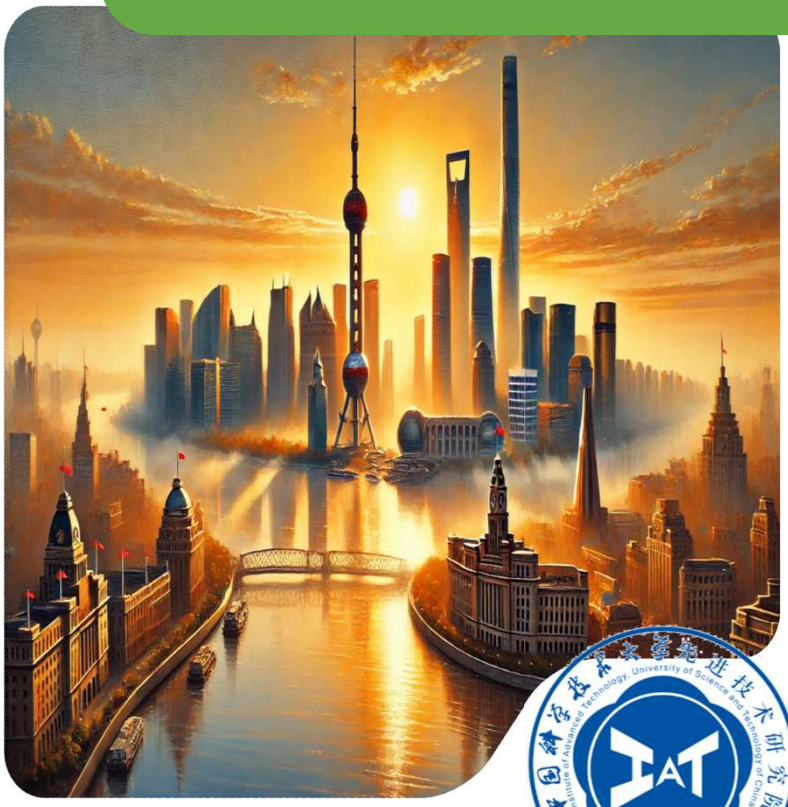
New **B**asic **M**aterials, World-Leading **T**echnology, Leading Industry Develop**m**ent

Promote low-carbon and energy conservation throughout the entire industrial chain and environmental friendliness throughout the entire life cycle of buildings!

2

R&D Team

Led by the Young Scientist Team of USTC Advanced Technology Research Institute



Sun Qi

Postdoctoral Fellow and Associate Professor at USTC Advanced Technology Research Institute, technical leader in the R&D of lightweight integrated building coatings. The R&D team he leads, consisting of ten postdoctoral fellows, has made breakthroughs in cutting-edge fields such as inorganic flexible adhesives for construction (Class A flame-retardant and flexible) and inorganic hybrid resins,

3 All-Function Art Coating

Industry-Leading Integrated Coating

01 OMTARA All-Function Art Coating（OMT Coat）

multi-functional, high-performance, integrated exterior wall decorative coating with a thick film of 2-3mm. It features excellent properties such as lightweight and safety, toughness, anti-cracking, water resistance, salt spray resistance, thermal insulation, sound insulation, and weather resistance. It has strong adhesion, hydrophobicity, self-cleaning, and solar heat reflection. The OMT coating directly replaces the facade waterproof layer, leveling layer, and decorative layer, realizing multi-functional integration. In particular, the super anti-cracking performance of the OMT coating—maintaining integrity without cracking even when the wall cracks by 2mm—solves industry pain points. It has a long weather-resistant service life of 15 years, contains no sand and gravel, is green and low-carbon (reducing carbon emissions by over 80% compared to traditional real stone paint), and reduces building operation energy consumption.

- **Core New Materials**: OMT coating adopts original hollow glass microcrystals, porous microsponges, and inorganic hybrid polymer resins, achieving in-depth innovation in core main materials.

- **Decorative Effect:** The decorative effect of OMT coating surpasses that of real stone paint, texture paint, water-in-water Multi-color coating， art paint, and multi-color coatings. It can be colored freely, is colorful and non-fading, supports 3D three-dimensional patterns and shallow carving with a thickness of 50mm, supports all embedded decorative elements and materials, and supports pattern module embedding, presenting both grandeur and delicacy.

- **Lightweight & Safe, Green & Low-Carbon:** Lightweight brings low carbon, low consumption, and high efficiency to the entire industry chain, reduces labor intensity, improves efficiency, and ensures quality. Lightweight and safe, the coating is not easy to peel off, improves weather resistance, and extends service life. Thick decorative coating is like a thick "clothes" for buildings; a sufficiently thick and dense coating can withstand wind, frost, rain, snow, and all seasons. Its sufficient internal space can carry multiple functions, complex structures, and strong performance. Looking forward, thick exterior wall coatings will have unlimited room for improvement and development.

- **The integrated coating concept breaks through tradition:** simplifies complexity, represents the future, and conforms to the laws of material science and technology development. Currently, the OMT coating integrates functions such as leveling, anti-cracking, waterproofing, thermal insulation, heat reflection, sound insulation, and decoration, practicing the new direction of lightweight, multi-functional, and integrated decorative coatings. It is expected that integrated building coating products will continue to enrich and develop, and the architectural coating industry will enter an era of higher-level new material technology competition.

3 All-Function Art Coating

Industry-Leading Integrated Coating

01 OMTARA All-Function Art Coating (OMT Coat)

•OMT coating is tough, dense, and breathable, with salt spray resistance, adhesion strength of 0.8MPa, freeze-thaw resistance, scrub resistance, and surface hydrophobic self-cleaning (topcoat can be omitted). The coating's flame retardancy reaches Class B1.

Super Anti-Cracking: With a new exterior wall anti-cracking theory and a new anti-cracking structure, it achieves 2mm dynamic anti-cracking performance through three lines of defense (the coating remains intact even if the base layer cracks by 2mm). It has long weather resistance with a service life of 20 years.

Facade Waterproofing: Anti-seepage pressure of 1MPa, good water resistance, no abnormalities after 3000 hours of immersion, ensuring waterproofing and anti-seepage. Thermal Insulation + Solar Heat Reflection: Reduces exterior wall surface temperature by 15 □ during exposure to the sun, reducing indoor air conditioning energy consumption by 40%. Lightweight Coating: Coating density ranges from 0.35-0.65, and dry film density ranges from 0.25-0.40 (about 10% of real stone paint). Simple Construction: Can be applied by conventional methods such as troweling, spraying, rolling, troweling to smooth, and texturing. New Buildings: Applied on anti-cracking mortar layer with a thickness of 3-5mm to achieve leveling, waterproofing, and decoration. New Buildings: Applied on insulation boards (including insulation board joints) to achieve leveling, waterproofing, decoration, etc. Renovation of Old Buildings: For repairing old walls, it can be used on base layers such as insulation boards, cement, ceramic tiles, and real stone paint to achieve multiple functions of leveling, waterproofing, and decoration. Its lightweight and safety, along with excellent anti-cracking performance, prevent the base layer from cracking and falling off

3

All-Function Art Coating

Industry-Leading Integrated Coating

02 OMT Coating Technical Indicators

No	Item	Technical Indicators (Tianyun Enterprise Standard)
1	Drying Time (Surface Drying), h	≤4
2	Initial Drying Crack Resistance	No cracks at all times with a film thickness of 6mm
3	Water Resistance	No abnormalities after 96h
4	Alkali Resistance	No abnormalities after 96h
5	Water Absorption (2h), g	≤2.0
6	Adhesion Strength, MPa — Standard Condition	≥0,60
	Adhesion Strength, MPa — Freeze-Thaw Cycles (5 times)	≥0.40
7	Coating Temperature Resistance (5 cycles)	No abnormalities
8	Stain Resistance, Grade	≤2
9	Artificial Weathering Resistance	No cracking, blistering, or peeling after 600h; chalking grade 0; color change ≤1 grade
10	Scrub Resistance (2000 times)	Film undamaged
11	Anti-Seepage Pressure (Coating Specimen), MPa	≥1
12	Dynamic Crack Resistance, mm	Base crack ≥2
13	Lateral Deformation Capacity, mm	≥5.0
14	Combustion Performance	Shall comply with JG/T 512
15	Thermal Conductivity, W/m·K	≤0.08
16	Specific Heat Capacity, kJ/(kg·K)	1.0 ~ 2.0
17	Heat Storage Coefficient,, W/(m² ·K)	1.0
18	Dry Apparent Density, kg/m³	300 ~ 350

3 **All-Function Art Coating**

Industry-Leading Integrated Coating

03 Technical Standards

OMTARA Tianyun All-Function Art Coating (for interior and exterior walls of buildings)

Enterprise Standard of Shanghai Tianyun Nano Technology Co., Ltd. Q/SHTY 001-2024

- Synthetic Resin Emulsion Sanded Building Coatings

Industry Standard of the People's Republic of China for Construction JG/T 24-2018

- General Technical Requirements for Exterior Wall Coatings

Industry Standard of the People's Republic of China for Construction JG/T 512-2017

- Anti-Seepage Pressure (Coating Specimen): GB 23440-2009
- Dynamic Crack Resistance: OMT Exterior Wall Coating Anti-Cracking Testing Instrument, OMT Anti-Cracking Standard
- Tensile Test: Electronic Universal Material Testing Machine, OMT Thick Coating Elasticity Standard
- Lateral Deformation Capacity: JC/T 1004-2017
- Thermal Conductivity: GB/T10294-2008
- Solar Heat Reflection: JG 235-2014 "Architectural Reflective Insulating Coatings"

3

All-Function Art Coating

Industry-Leading Integrated Coating

04 Green and Low-Carbon

OMT integrated exterior wall coating has a service life of 20 years, is easy to maintain and repair, significantly reducing the average annual cost of the exterior wall throughout its life cycle to 20% of the traditional scheme.

OMT coating directly replaces three exterior wall coating materials: waterproofing, putty, and decorative layers, directly reducing carbon emissions by over 80%.

OMT integrated exterior wall coating simplifies processes, significantly improves efficiency, enables fast construction, shortens construction period, and reduces comprehensive costs.

The application of OMT coating can greatly reduce the difficulty and cost of material management during construction, effectively improve construction supervision, and facilitate the implementation of information-based and intelligent management systems and methods.

The lightweight nature of OMT coating is of great significance, promoting green, low-carbon, energy-saving, and environmental protection throughout the entire building life cycle from manufacturing, transportation, use, maintenance to demolition, reducing labor intensity, and improving work efficiency and project quality.

05 De-sanding

Does not use sand and gravel resources from the surface and river channels, protecting the natural ecosystem of rivers, waterways, and surrounding areas, and reducing human impact.

• China's sand and gravel resources are in short supply, having shifted from export to import.

4 Original Core Raw Materials

• Core new materials form a three-dimensional spatial network structure, which is flexible, breathable, waterproof, and green. They link four advanced lightweight materials to form a coating structure with three-dimensional network and lamellar combination, thereby realizing the superposition of conflicting properties of the exterior wall coating system and achieving the integration of multiple functions of the exterior wall system.

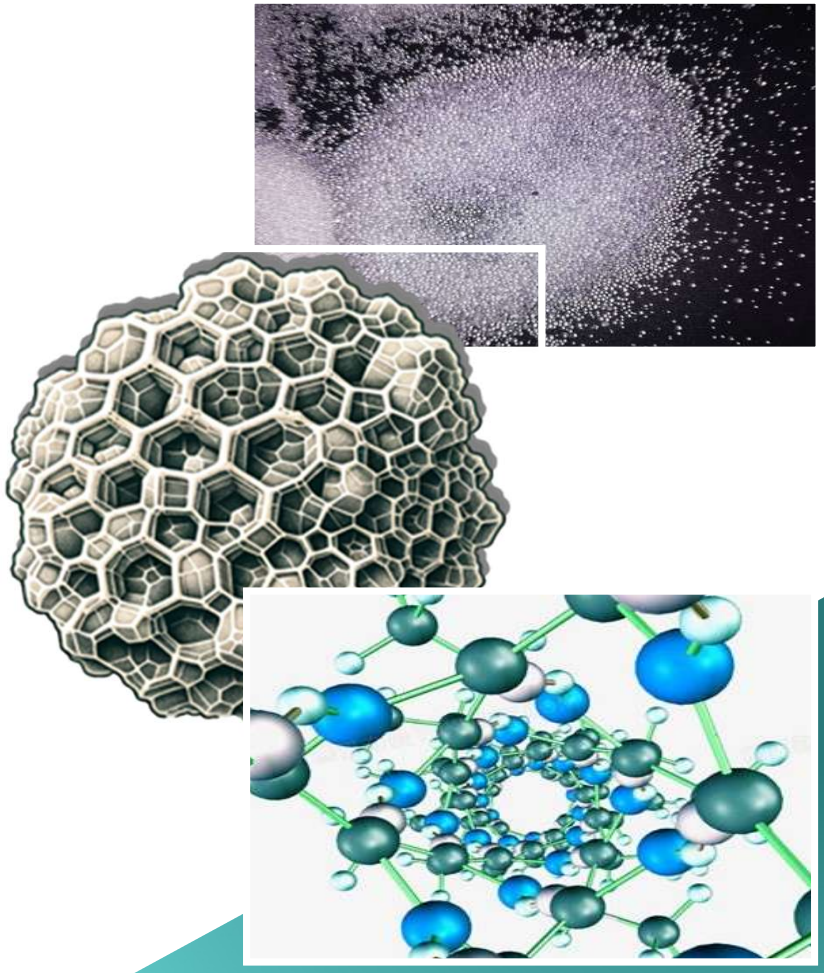
① Hollow Glass Microcrystals (Original lightweight inorganic thermal insulation material)

② Porous Microsponges (Original organic thermal insulation material)

③ Aerogel Powder (Thermal insulation material, low-cost with original technology)

④ High-Strength Hollow Glass Microspheres (More suitable for building materials)

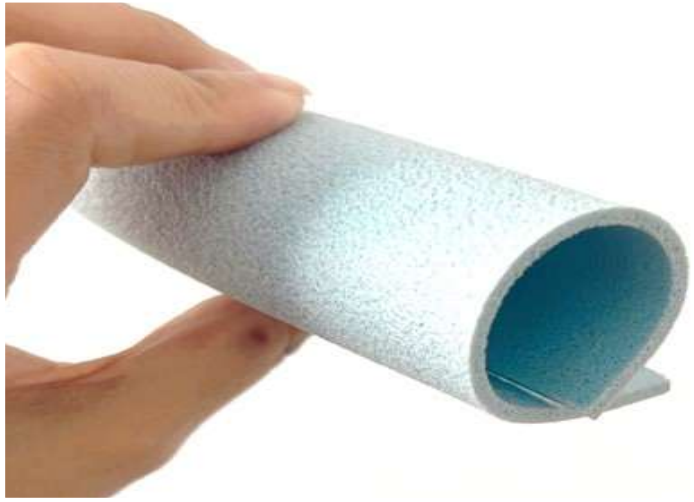
⑤ Polymer Inorganic Hybrid Resin (Flexible, flame-retardant, environmentally friendly)



4 Flexible Thick Coating

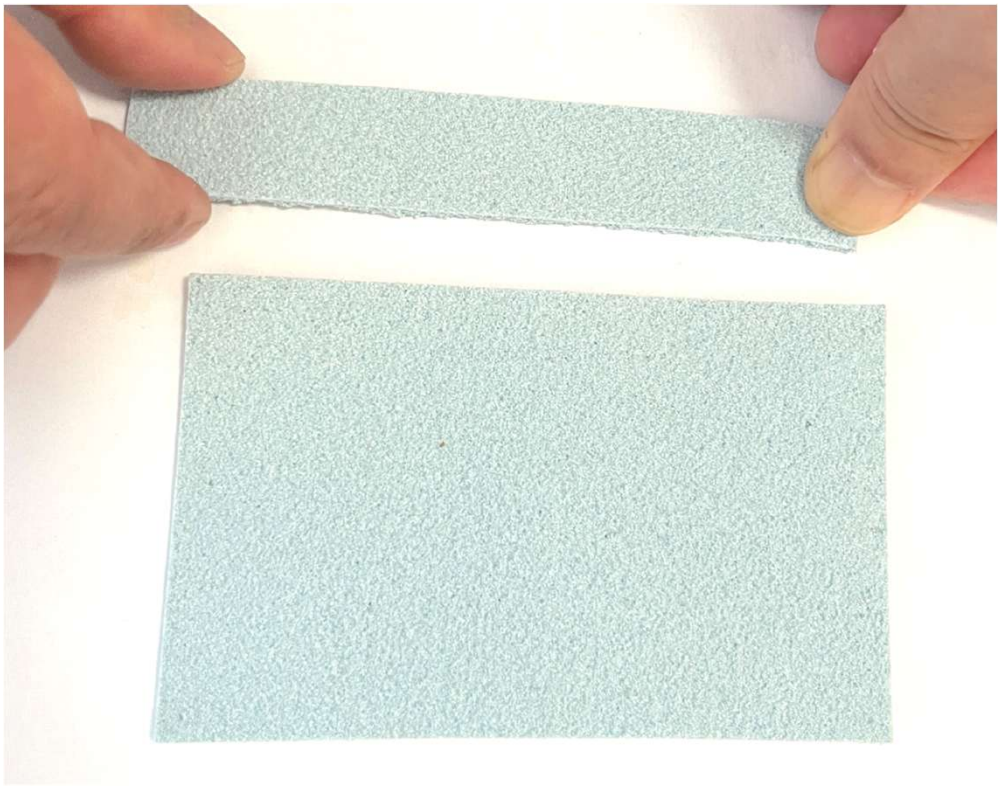
Thick Coating: Flexible and Solid

•This coating, with a thickness of over 3mm, can be freely bent within a circular arc range of R=1cm and can completely return to a flat surface, demonstrating its remarkable elasticity and flexibility.



4 Flexible Thick Coating

• This coating, with a thickness of over 3mm, can be stretched to 1.2 times its original length without losing recovery elasticity. After the external force is removed, the coating can return to its original shape.

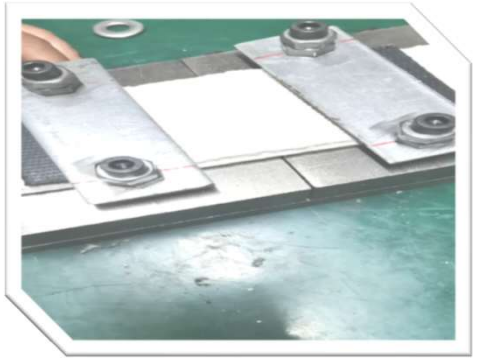


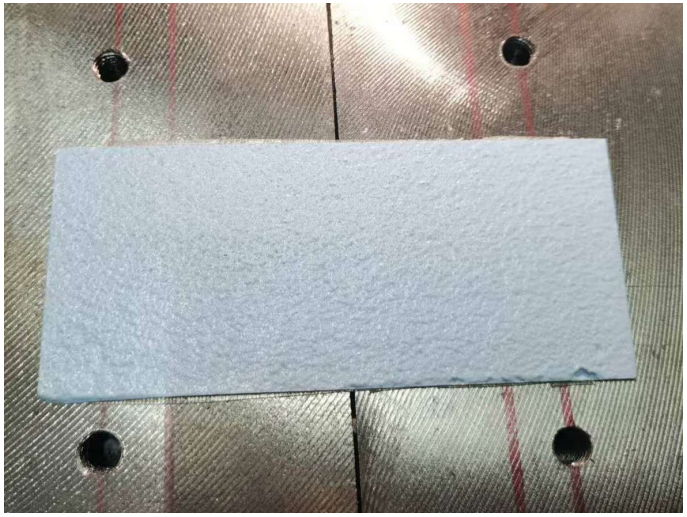
4 Flexible Thick Coating

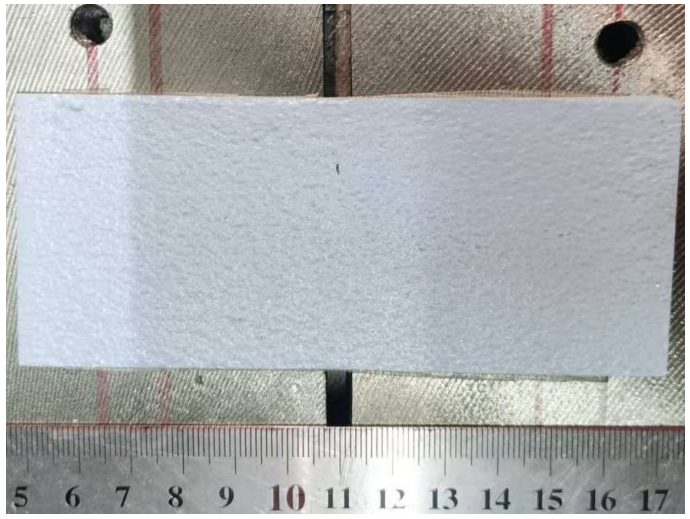
Revolutionary Dynamic Anti-Cracking Performance

- This coating, with a thickness of 3mm, remains intact and does not crack when the base layer has a 2mm crack, only reducing local thickness by 0.3mm.

Experimental Video







5 Integrated Exterior Wall System (Exterior Wall Without Insulation Board)

Coating Thickness: 2–3mm

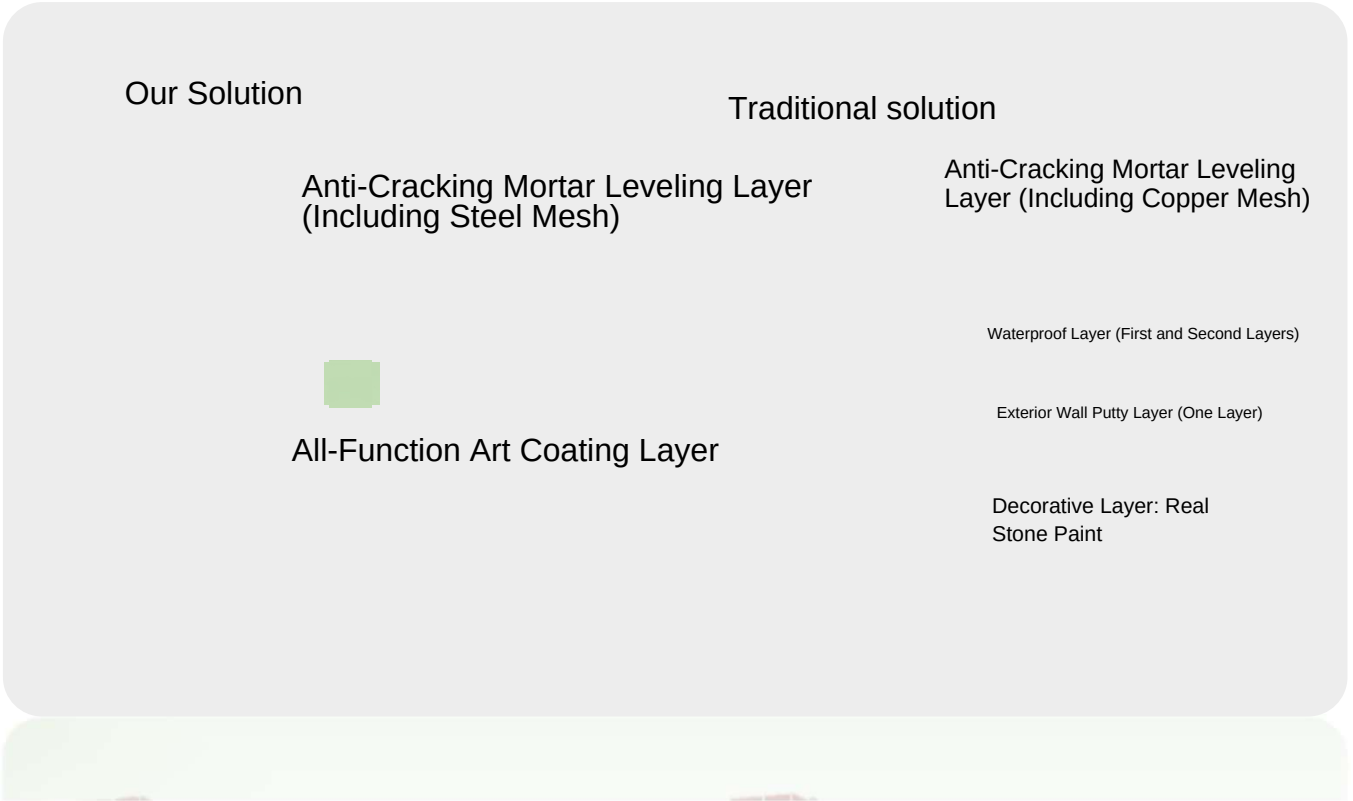
- **Simplified wall structure**
- **Reduced processes, shortened construction period**
- **Reduced labor costs**
- **Easy material management**
- **Easy maintenance and repair**

Exterior Wall Art Coating

Lightweight Exterior Wall **S**yste**m**

Anti-Cracking, Waterproofing, Leveling, and Decoration Integration

Thermal Insulation Sound Insulation, Noise Reduction, Flexible Anti-Cracking, Lightweight & Safe

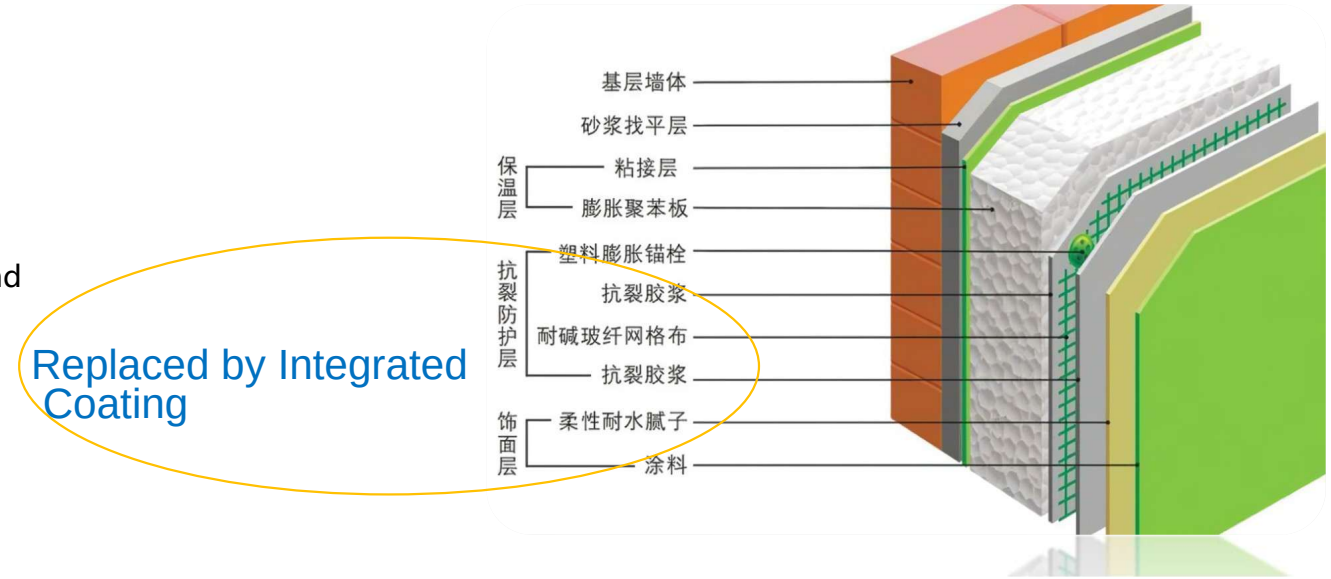


5 Integrated Exterior Wall System (Exterior Wall With Insulation Board)

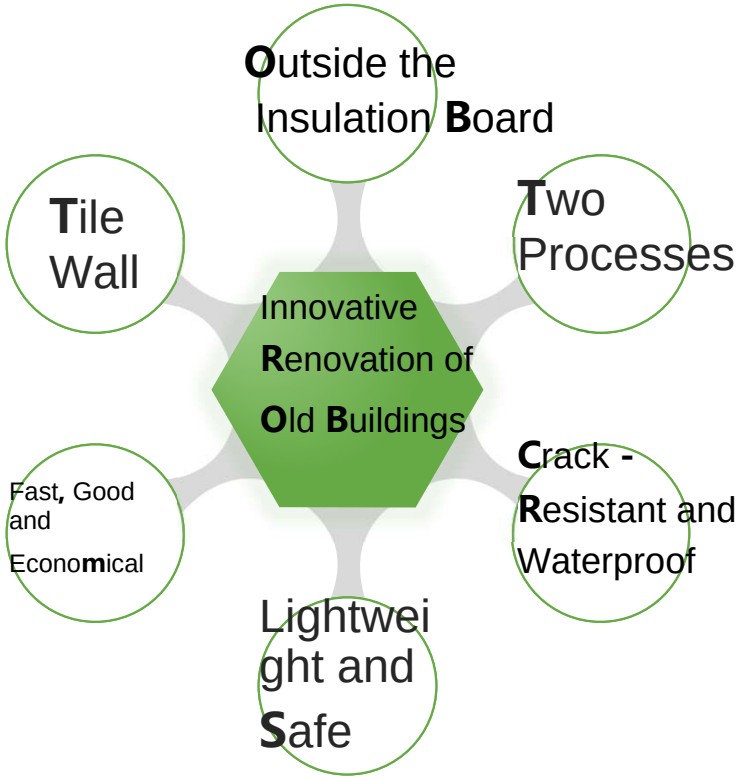
Solve at One Time
Leveling, Waterproofing, Anti-Cracking, Decoration

- On the exterior wall base layer, it supports one-time troweling with a thickness of 3-20mm without cracking, completing thermal insulation, heat insulation, anti-cracking, leveling, waterproofing, decoration, and solar radiation reflection at once, shortening the construction period and reducing costs. The coating has low thermal conductivity, providing thermal insulation effect, preventing drastic temperature changes of the wall, and extending the building's service life. It also helps meet the national building energy-saving design requirements.

The traditional anti-cracking protective layer and decorative layer will be replaced by a 3mm-thick all-function art coating layer! The new rigid-flexible exterior wall system prevents cracking and significantly extends the service life of the exterior wall insulation system. We will discuss this in a special article separately!



5 Integrated Exterior Wall System (Renovation of Old Buildings)



Scraping and **S**praying

Thick coating, good flexibility, covers the wall surface
Tough coating, three - dimensional and colorful
All - around protective layer, adapts to thermal expansion and contraction, prevents inner layer from falling off
2 mm dynamic crack resistance, regain the charm of the building
Solar heat reflection helps the building to extend its service life and save energy

For various old wall surfaces, the characteristics of this coating can be utilized to design the optimal renovation plan that meets the customer's needs.

5 Integrated Exterior Wall System (Key Features)

Lightweight & **S**afe, Easy Work

The labor intensity of workers' handling and lifting is less than one-fourth of that of traditional real stone paint operations! Work efficiency is significantly improved. The dry film weight of the coating is one-tenth of that of traditional exterior wall coatings! The dry film specific gravity is 0.3–0.5! The coating has no risk of cracking or falling off. Lightweight brings a more green and low-carbon industry chain. Safe and secure, increasing the service life of the coating.

3.5-liter spray pot, weighing 6KG, is reduced to 1.5KG.

5

Integrated Exterior Wall System
(Key Features)

Solar Heat Reflection

All-Function Art Coating

Glass Microcrystal Surface

Strong **R**eflection Function

Exterior Wall Cooling

5-10℃

5 Integrated Exterior Wall System (Key Features)

Under nor**m**al circu**m**stances**,** building exterior walls are hot in su**mm**er and cold in winter**.** If their outer surface is coated with a **10mm OMT** ther**m**al insulation reflective coating**,** it will reflect solar ther**m**al radiation and block heat fro**m** hot air in su**mm**er**,** and block cold air intrusion in winter!

In su**mm**er**,** the external surface te**m**perature of the wall can be reduced by **8℃,** and the average te**m**perature of the internal wall can be reduced by **6℃**!

Reducing air conditioning cooling ti**m**e by **m**ore than **30%**

OMT Coating Solves

Thermal insulation problems of top-floor ceilings, west g[illegible]

and cold gable walls!!

Cool in su**mm**er and war**m** in winter is not a drea**m.**

Use less air conditioning and be **m**ore co**m**fortable**.**

The exterior wall temperature drops from 58℃ to 50℃. To keep the interior wall at 26℃, the air conditioning power ratio is (50-26)/(58-26)=75%. With the effect of the thermal insulation layer, the actual energy saving is over 30%.

Exterior Wall Reflective Thermal Insulation Coating 10mm

Problem Solving

Sound Insulation

Noise Reduction

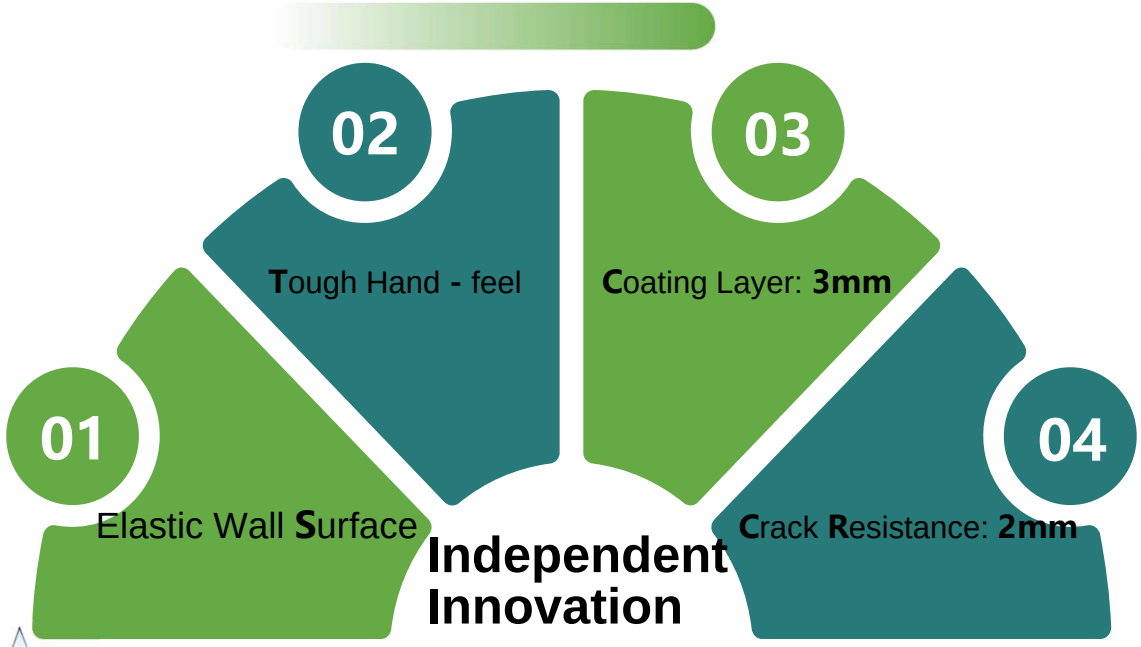
Reduce **O**utdoor Noise

Fill the Weaknesses of the Building

5

Integrated Exterior Wall System (Key Features)

Ultra - strong **C**rack **R**esistance, Professional Waterproofing



Waterproof Performance: Can replace polymer cement waterproof coatings, polymer cement waterproof slurries, polymer beneficial glues, etc., to achieve the integration of waterproofing and decoratio

Theory and Practice of Three - layer Defense for Crack Resistance

First Layer: Stress Release

Allows appropriate expansion changes of the wall surface, ensuring the integrity of the coating layer and keeping it within the elastic range.

Second Layer: Inhibit Cracking

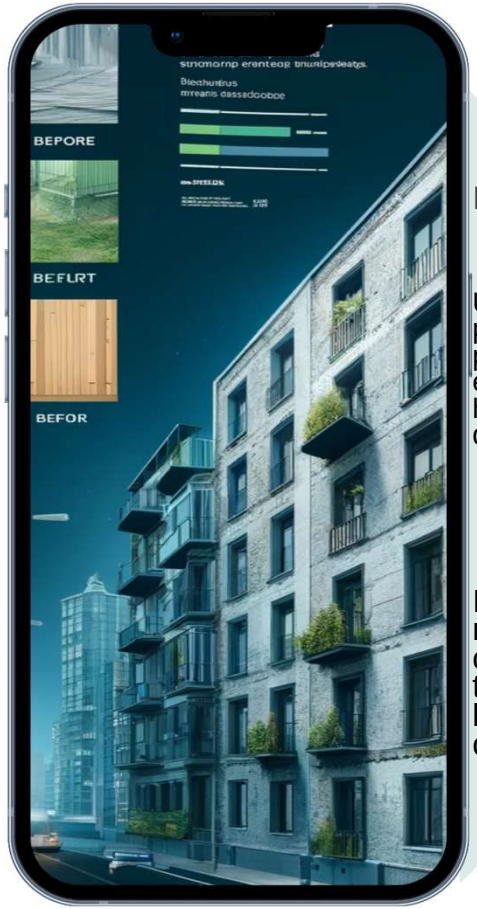
Controls the reasonable range of wall surface deformation. The maximum transverse tensile strength of the coating layer reaches 3MPA, suitable for tightening the wall.

Third Layer: Protect Cracks

The coating layer is intact and covers 2mm base - layer cracks . When the wall surface finally cracks, it ensures the integrity of the coating layer and sufficient waterproof function.

- We have designed ultra - strong elastic topcoats, composite structure mesh cloths, and construction tools.
We have designed new standards and testing tools for the coating layer structure.

6 Exterior Wall Renovation Plan



Improve Living Environment

Urban renewal serves the people, makes up for the past, solves pain points, and enhances the sense of happiness. The development direction for the future!

Enhance Aesthetic Feeling

Enhance the modern sense of the building's appearance, regain the characteristics of Chinese architectural culture, and pay the cost for it.

Promote Industrial Progress

Rely on scientific and technological progress to solve more comprehensive and complex architectural problems and realize the future of a green and low - carbon industry.

Heat Insulation and Reflection

Adopt suitable thermal insulation materials, especially to improve energy efficiency in summer, effectively extend the service life of the wall.

Green Solution

Introduce eco - friendly green materials, focus on the comprehensive cost issues of the whole life cycle of the building. Green and low - carbon is the key!

Cutting - edge Technology

Lead the research direction, innovate and apply the latest building technologies and materials. Science and technology is the driving force!

Old buildings are renovated in new situations. Traditional thinking, technologies and products are difficult to cope. Old renovation needs innovation!

Large - scale and continuous urban renewal projects bring more challenges to relevant traditional industries, which will surely promote the application and innovative development of new theories, new technologies, new materials, new equipment and new processes!

6 Exterior Wall Renovation Plan

Believe in Cement?
Believe in Sandstone?
Believe in Rigidity?

Common Ideas for Renovating Tile Wall Surfaces

Anti - cracking Mortar with Mesh + Putty + Coating ✖

Traditional Idea ≠ Prudent

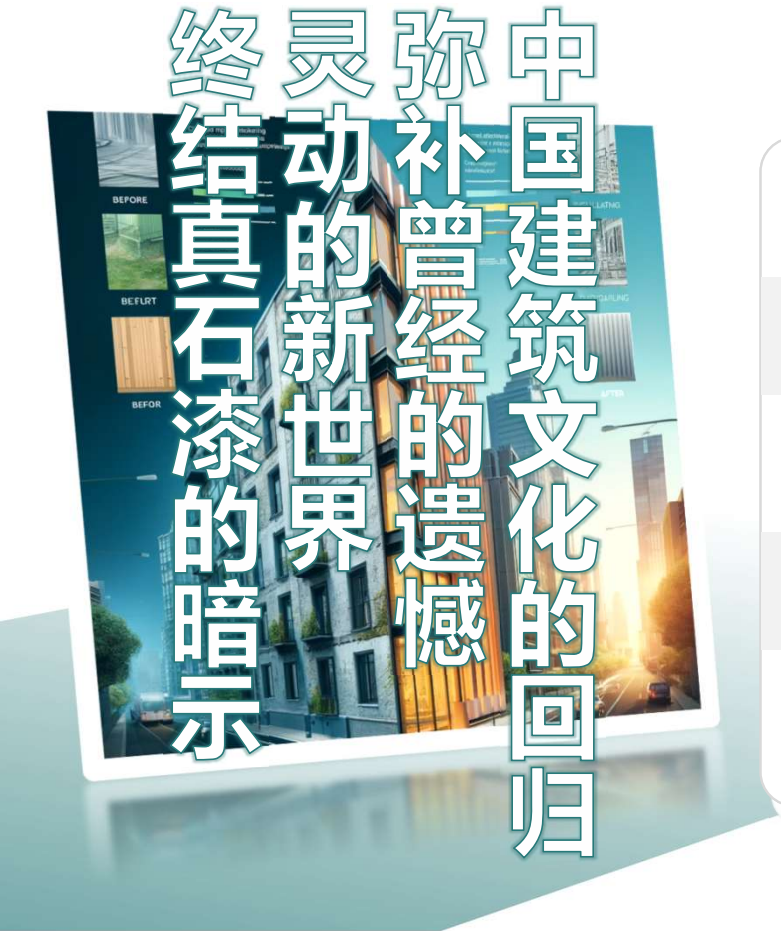
Mechanically Copying → Failure

Inertial thinking leads to mechanically copying the treatment method for newly - built brick - concrete walls!

- It seems very standard, traditional and prudent. In fact, this is a plan lacking theoretical basis and argumentation, and goes against scientific common sense.
- We also haven't seen evidence from scientific experiments.

Integration of Traditional Technologies

6 Exterior Wall Renovation Plan



Design Objectives:

Novelty and **A**esthetics**, S**ufficient **A**rtistic Expressiveness:

Old buildings take on a new look, being beautiful, elegant, solemn, and vibrant... showcasing cultural characteristics and environmental attributes.

Meet **C**ore Functional **R**equire**m**ents:

Crack resistance, waterproofing, energy conservation, safety, long service life, weather resistance, green and environmental protection. Upgrade the exterior wall system replacement, completing the transformation from makeup to clothing.

High **C**ost - effectiveness**, U**niversal and People - friendly:

High performance, high efficiency, low cost. Reduce the use cost, environmental cost, and humanistic cost throughout the building's life cycle.

Theoretical Innovation | Product Innovation | Design Innovation | Process Innovation

6 Exterior Wall Renovation Plan

Types of External Wall Structures:

Wall + **A**nti - cracking **M**ortar Layer + Waterproof Layer + Putty Layer + Latex Paint**, R**eal - stone Paint

Wall + **A**nti - cracking **M**ortar Layer + Waterproof Layer + Putty Layer + **C**era**m**ic **T**iles

Wall + Leveling **M**ortar Layer + **T**her**m**al Insulation **M**ortar Layer + Waterproof Layer + Putty Layer + **C**era**m**ic **T**iles

Wall + Leveling **M**ortar Layer + **T**her**m**al Insulation **B**oard + **A**nti - cracking **M**ortar Layer + Waterproof Layer + Putty Layer + Latex Paint**, R**eal - stone Paint

6 Exterior Wall Renovation Plan

Common Problems:

Hollowing, shelling, cracking, and spalling of the wall. Some structures are cracked, while most remain firm.

Cracking and water seepage of the wall, affecting the inner wall.

The decorative layer is old, damaged, cracked, and peeling off.

The insulation board absorbs water, is misaligned, not firm, and falls off.

Hollowing, falling off, fading, and chipping of ceramic tiles.

Cracking, peeling, and falling off of latex paint.

7 Renovation Plan for Ceramic Tile External Wall Surfaces

Nanjing Road, Shanghai

Wangfujing, Beijing

Xiamen Pedestrian Street

Across the country**,** there is huge de**m**and and a broad **m**arket**.** **T**his is a universal solution**.**

7 Renovation Plan for Ceramic Tile External Wall Surfaces

Classification Treatment

According to the degree of aging and damage of the wall, simply classify it into Category A, B, and C by the severity. We take the tile bonding strength as the core indicator and cooperate with testing units to formulate testing standards to regulate this classification.

Scientific Testing

Hollowing hammer, infrared imager, ultrasonic detector, tile bonding strength pull - out tester, cement strength tester, etc.; Refer to JGJ 110 - 2008 "Standard for Testing the Bonding Strength of Tiles in Building Engineering".

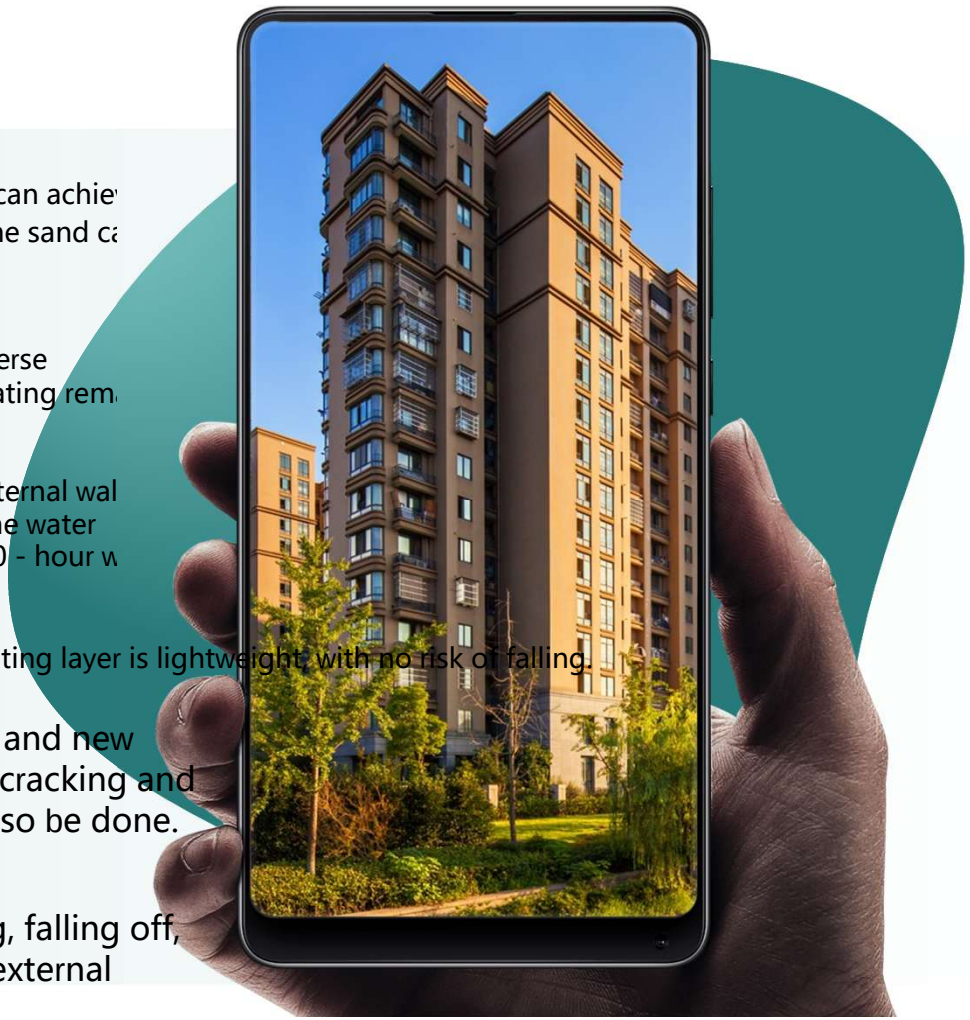
Scheme Customization

According to the needs such as the future use, service life, value positioning, and cost - investment plan of the building, conduct a comprehensive evaluation and formulate a personalized external wall renovation scheme.

7 Renovation Plan for Ceramic Tile External Wall Surfaces

Characteristic Advantages of the Plan

- **Decorative Effect**
  The flatness is better than that of the original wall, with no traces of tile joints. It can achie
  sand - like texture or an orange peel pattern. The color of the coating film and the sand ca
  adjusted and matched to realize a variety of decorative effects.
- **Crack Resistance and Crack Prevention**
  The coating can inhibit the cracking tendency of the base layer and resist a transverse deformation tensile force of 3MPA. When the base layer has a 2mm crack, the coating rem
  intact, without cracking or water seepage.
- **Waterproof and Breathable**
  The new coating can meet the technical requirements for waterproofing of the external wal
  facade, ensuring that the wall does not seep water and is breathable. Moreover, the water resistance of the coating layer is excellent, and there is no abnormality in the 3000 - hour w
  immersion test.
- **Safety**
  It protects the base wall, preventing large - area spalling or local collapse. The coating layer is lightweight, with no risk of falling.
- **Ease of Repair**
  It can be directly painted and repaired at the damaged part. The old and new coating layers have good affinity and strong bonding force, without cracking and peeling off of the layer. Local spray painting for beautification can also be done.
- **Weather Resistance**
  The coating has excellent weather resistance, with no risk of cracking, falling off, or fading. On the premise that the coating layer is not damaged by external forces, the service life is more than 20 years.



7 Renovation Plan for Ceramic Tile External Wall Surfaces

Plan **A**: **T**he **S**trongest **C**rack **- R**esistance Plan**, A**pplicable to High **-** rise **B**uildings with **M**ore **T**han **10** Floors

• Batch - apply OMT repair coating within 1mm to fill joints and achieve preliminary leveling, and paste OMT - made fiberglass mesh;

• Batch - apply OMT artistic coating (designed color) 2mm to achieve leveling (equivalent to putty leveling), semi - dry and polish, and can be sanded after drying;

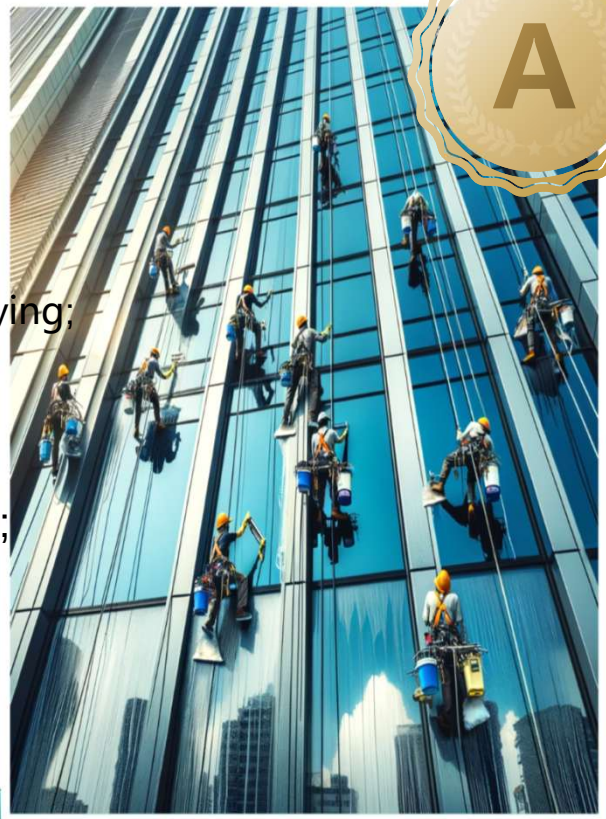
• Spray/roll - apply OMT artistic coating (designed color) 1mm to complete decoration;

• Spray/roll - apply OMT anti - crack topcoat 0.5mm to increase heat - reflective performance and achieve the best crack - resistance effect;

• Spray/roll - apply OMT topcoat to improve gloss and dust - proof and self - cleaning performance (can be omitted);

▫ The coating thickness reaches 3mm, which can resist the impact of future 2mm cracking of the base wall;

✓ Focus on excellent adhesion, light and safe, good waterproof performance, prevent tile detachment, and the base crack - resistance is greater than 2mm.



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Renovation Plan for Ceramic Tile External Wall Surfaces

Plan **B**: **S**uitable for buildings with **10** floors or less

- Paste the OMT - made special fiberglass mesh on the surface of ceramic tiles.
- Batch - apply OMT repair coating within 2mm to fill joints and roughly level.
- Spray/roll - apply 1mm of OMT artistic coating (in designed color) to complete the decoration.
- Spray/roll - apply OMT topcoat to improve glossiness and dust - proof self - cleaning performance (can be omitted).

✓ Emphasize safety to better prevent ceramic tiles from cracking and falling off.
The appropriate thickness of batch application can resist 1mm cracking of the future base wall.

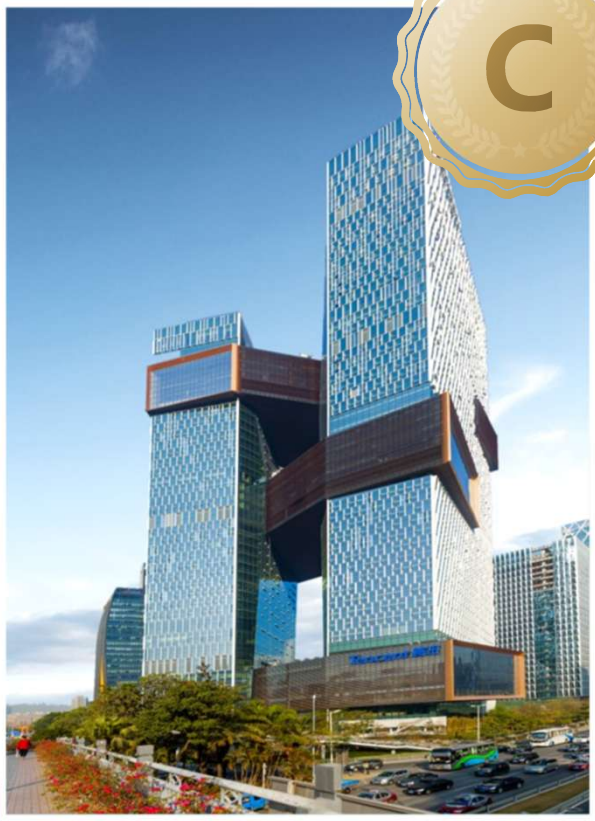
7

Renovation Plan for Ceramic Tile External Wall Surfaces

Plan C: Applicable to buildings with well - conditioned external wall ceramic tiles

- Batch - apply 1mm of OMT repair coating to achieve better tile joint bonding.
- Batch - apply 1mm of OMT repair coating (in the designed color) to fill joints and level.
- Spray/roll - apply 1mm of OMT artistic coating (in the designed color) to complete the decoration.
- Spray/roll - apply OMT topcoat to enhance gloss and dust - proof self - cleaning performance.

- Lightweight and safe, good waterproof performance, can resist the impact of 0.5mm cracking of the future base wall.
- Select the batch - application thickness according to the specific flatness of the ceramic tile wall surface.
- Suitable for decoration - oriented needs.



7

Renovation Plan for Ceramic Tile External Wall Surfaces

Summary and Comparison of Advantages

- The above typical Plans A, B, and C have 3 - 5 procedures, which can solve all the problems and needs of the current ceramic tile wall surface renovation.
- Labor cost: Reduced by more than half;;
- Construction period: Reduced by more than half;
- Construction period cost and overflow cost: Reduced by more than 80%;
- Material cost: Higher than the traditional plan;
- Comprehensive cost: On par with the traditional plan;
- Re - repair cost: Far lower than the traditional plan;
- Service life: 5 times that of the traditional plan, with a service life of more than 20 years;
- Life - cycle cost of the building: 20% of the traditional plan;
- Market adaptability: Covers high - end, mid - range, and low - end markets, and can meet the needs of new rural construction.

- Traditional plan (normal design) has 13 procedures, and thedesign principle is questionable: Putty for joint filling, interface agent, anti - cracking mortar, steel mesh, anti - cracking mortar, interface agent, coarse external wall putty, fine external wall putty, interface agent, real - stone paint (applied twice), topcoat.

8

Renovation Plan for Latex Paint and Real - stone Paint Wall Surfaces

Travel through time and space, find the fulcrum of technology for the imagination that has never existed.

8 Renovation Plan for Latex Paint and Real - stone Paint Wall Surfaces

Characteristic Advantages of the Plan: Very Suitable for the Repair and Renovation of External Wall Insulation Systems

A方案

1 Safety

OMT coating is lightweight and safe, with strong adhesion. Due to its flexibility and integrity, it can prevent the decorative layer of the wall from falling off and eliminate potential safety hazards.
Waterproofness

2 Waterproofness

It has good waterproof performance and comprehensively solves the problems of water seepage and pulverization of the wall.

3 No Cracking

OMT coating is tough and does not crack. It will not crack in cases such as uneven coating thickness and no division lines.

4 Perfect Coverage

OMT coating can perfectly cover the subtle cracks that are about to appear on the wall. The dynamic crack resistance of the wall base layer is greater than 2mm (that is, if the base layer cracks again by about 2mm in the future, it will not affect the surface coating layer, no falling off or tearing, the coating structure is complete, and it still has good waterproof performance and decorative effect).

5 Firmness

OMT coating will enhance the firmness and integrity of the wall and can prevent the wall from cracking again in the future.

6 Adaptability to Seasonal Changes

It is not affected by thermal expansion and contraction. The coating does not crack and has heat reflection and thermal insulation functions to protect the base wall.

7 Low Cost

Supports partial renovation and repair of the wall, being beautiful, safe, long - lasting, and low - cost.

8 Weather Resistance

Supports overall renovation, with low cost, good effect, weather resistance, safety, and long service life (more than 10 years).

9 Easy to Repair

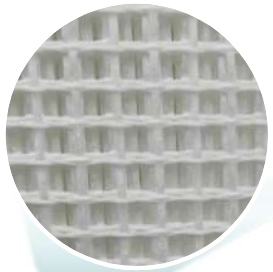
Easy to repair in the later period, supporting partial repair and decoration. The adhesion and affinity between the new and old coating layers are strong.

8 Renovation Plan for Latex Paint and Real - stone Paint Wall Surfaces

Base Treatment

A方案

Remove the unstable cement layer and paint layer, and keep the parts with good strength and bonding force.
Wash with high - pressure water gun to remove floating sand, clean the paint surface with clean water and moisten it.
The missing parts of the wall need to be repaired with OMT repair coating until the surface has the same height and is leveled.
Use OMT repair coating to simply repair cracks larger than 1mm on the wall surface.



用OMT专用胶粘剂，粘贴OMT特制玻纤网

Use OMT special adhesive to paste OMT - made fiberglass mesh.

批涂OMT艺术涂料（设计色）2mm，实现找平

Batch - apply 2mm of OMT artistic coating (designed color) to achieve leveling.

喷涂/滚涂 OMT艺术涂料（设计色）1mm，实现装饰，砂粒感或橘纹感

Spray/roll - apply 1mm of OMT artistic coating (designed color) to achieve decoration, with a sand - like or orange peel texture.

喷涂/滚涂OMT 强抗裂面漆（设计色）0.5mm，有加强防水抗裂的效果，同时也作为颜色装饰层

Spray/roll - apply OMT strong anti - crack topcoat (designed color) 0.5mm, which has the effect of enhancing waterproof and anti - crack performance, and also serves as a color decorative layer.

喷涂/滚涂OMT罩面漆以提高光泽度和防尘自洁性能

Spray/roll - apply OMT topcoat to improve gloss and dust - proof self - cleaning performance.

8

Renovation Plan for Latex Paint and Real - stone Paint Wall Surfaces

Conventional Design Plan in **S**henzhen: (Fro**m O**utside to Inside)

1. Inorganic exterior wall paint (two coats), with specific color design and joint separation.
2. Two coats of exterior wall putty.
3. 1.5mm - thick polymer cement waterproof coating (JS - II type).
4. 8mm - thick polymer cement waterproof mortar (≥P6).
5. Hot - dip galvanized steel wire mesh (12x12, 0.8 steel wire mesh) fully hung on the exterior wall with slurry --- (On the base wall).

A方案

New Plan with OMT Coating:

Replace the above 1st, 2nd, and 3rd layers with OMT coating with a total thickness of 3mm, and complete leveling, waterproofing, and decoration in an integrated manner. That is, batch - apply twice (for leveling), batch - apply twice (to achieve decorative effect), and batch - apply the topcoat 1 - 2 times (for brightness and self - cleaning).

OMT mesh cloth + OMT coating with a thickness of 6mm, replacing all the above 5 layers, is the best plan. It can fully achieve the design goals of leveling, waterproofing, and decoration. Meanwhile, it has better crack resistance, weather resistance, long service life, short construction period, low cost, and green environmental protection. Process example:

Batch - apply **2mm** of **OMT** coating to achieve initial leveling**.**

Paste **OMT - m**ade special fiberglass **m**esh**.**

Paste **OMT - m**ade special fiberglass **m**esh**.**

Spray**/**roll - apply **OMT** strong anti - crack topcoat (designed color) **0.5mm,** which has the effect of enhancing waterproof and anti -

Spray/roll - apply OMT topcoat to improve gloss and dust - proof self - cleaning performance.

8

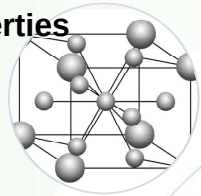
Renovation Plan for Latex Paint and Real - stone Paint Wall Surfaces

A说明

New coating Performance Description

解决开裂痛点

Coating Structure and Mechanical Properties



- OMT fiberglass mesh combined with a 3mm flexible coating = an integrated flexible skin
- Adhesion (bonding force) is greater than 0.5MPA
- Transverse tensile strength (bonding force) is greater than 3MPA

Crack Resistance Performance 1

Toughness releases stress, fuses with the bottom layer, becomes a tough whole, fixes the bottom layer, and prevents the bottom layer from cracking.

Crack Resistance Performance 2

If the bottom wall cracks within 2mm, the coating remains intact and does not crack.

Performance Description of the New Coating (Solving Cracking Pain Points)

Crack Resistance Performance 3

The new coating formed during the repair process will not crack even if the thickness is uneven.

Waterproof Performance

Dynamically maintain the integrity of the coating, with dense and micro - pores, ensuring worry - free waterproofing on the facade.

Breathability Performance

Maintain the appropriate breathable and respiratory function required for the building's external wall, allowing water vapor to dissipate and preventing the pulverization of the base layer.

8

Typical Villa Application Cases

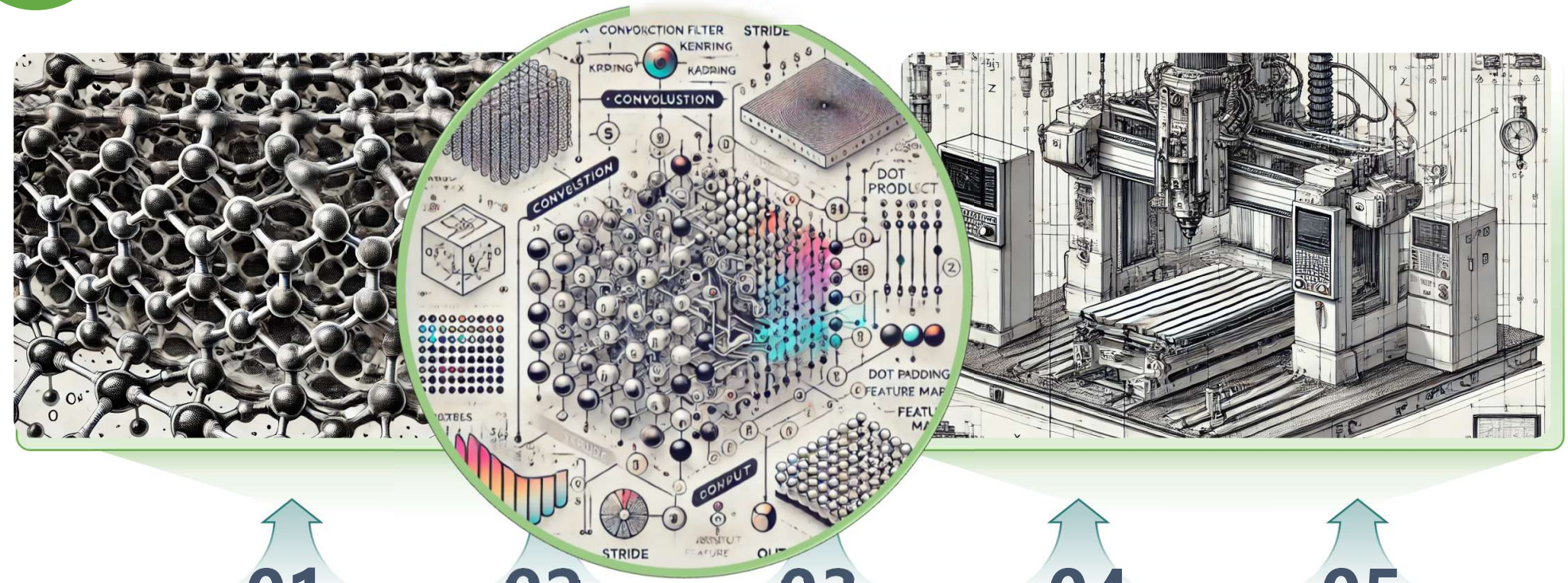
Solve the problems of waterproofing, crack resistance, and decoration. Provide full - process services including design, materials, construction, and ten - year warranty and maintenance. Implement scientific management, with insurance company guarantee, and a considerate mode.

8

Typical Villa Application Cases

Solve the problems of waterproofing, crack resistance, and decoration. Provide full - process services including design, materials, construction, and ten - year warranty and maintenance. Implement scientific management, with insurance company guarantee, and a considerate mode.

Innovation - Driven Development and Industrial Upgrading



01 理论 Theory

02 材料 Materials

03 设计 Design

04 设备 Equipment

05 工艺 Processes

9 Innovation Theory: There is a Way to Resist Cracks

New **T**heory of **C**oating **C**haracteristics and Dyna**m**ic **C**rack **R**esistance and Prevention

Flexibility

- A coating with a thickness of 3mm, when stretched horizontally from 2cm to 2.5cm over a length, can remain uniformly thinned without breaking;
- Flexibility ensures the integrity of the coating. When the base layer cracks, the overall structure of the coating is not damaged, and there is no visible impact on the appearance.

▫ ▫ Re - cross - linking Reconstruction

- When the coating is stretched due to cracks in the base layer and exceeds the elastic limit, the deformation of the coating no longer recovers. Under the promotion of temperature and humidity changes, the interior of the coating cross - links again to form a new elastic structure.
- If the elastic limit is not exceeded, but forced deformation occurs due to cracks in the base layer, reconstruction will also occur, and stress will be released. After losing the elastic recovery ability, it will cross - link and bond again.

Waterproof Performance

Thick coating, new type of graded joint - filling dense structure, with excellent waterproof performance. When cracks occur in the base layer, the coating remains intact, with good coverage, and still maintains sufficient facade waterproof performance.

Breathability

For thick coatings, it is very necessary to maintain breathability. The moisture in the wall can be exhaled to avoid pulverization of the base layer. The structure of the coating is advanced, allowing air to pass through but not water.

New **-** type Fiberglass **M**esh

The addition of new - type fiberglass mesh forms a very tough overall coating in the transverse direction, which can inhibit the cracking of the wall.

When the cracking tensile force exceeds a certain value, the coating is stretched, and then the coating enters a state of strongly inhibiting cracking again.

Construction **A**daptability

When this flexible coating is used for leveling, uneven thickness of the coating and one - time batch application of 3 - 5mm will not cause cracking. This is a very important performance support for the repair of old walls.

Affinity and **A**dhesion

It has excellent affinity and adhesion to the surfaces of various materials, such as ceramic tiles, insulation boards, cement walls, wood, stainless steel, interface agent layers, waterproof layers, etc.

9

Innovation Theory: There is a Way to Resist Cracks

Traditional Anti - crack Theory: Cement as the Core, Rigid Fastening, Inherent Defects

Principle of Dynamic Crack Resistance and Prevent

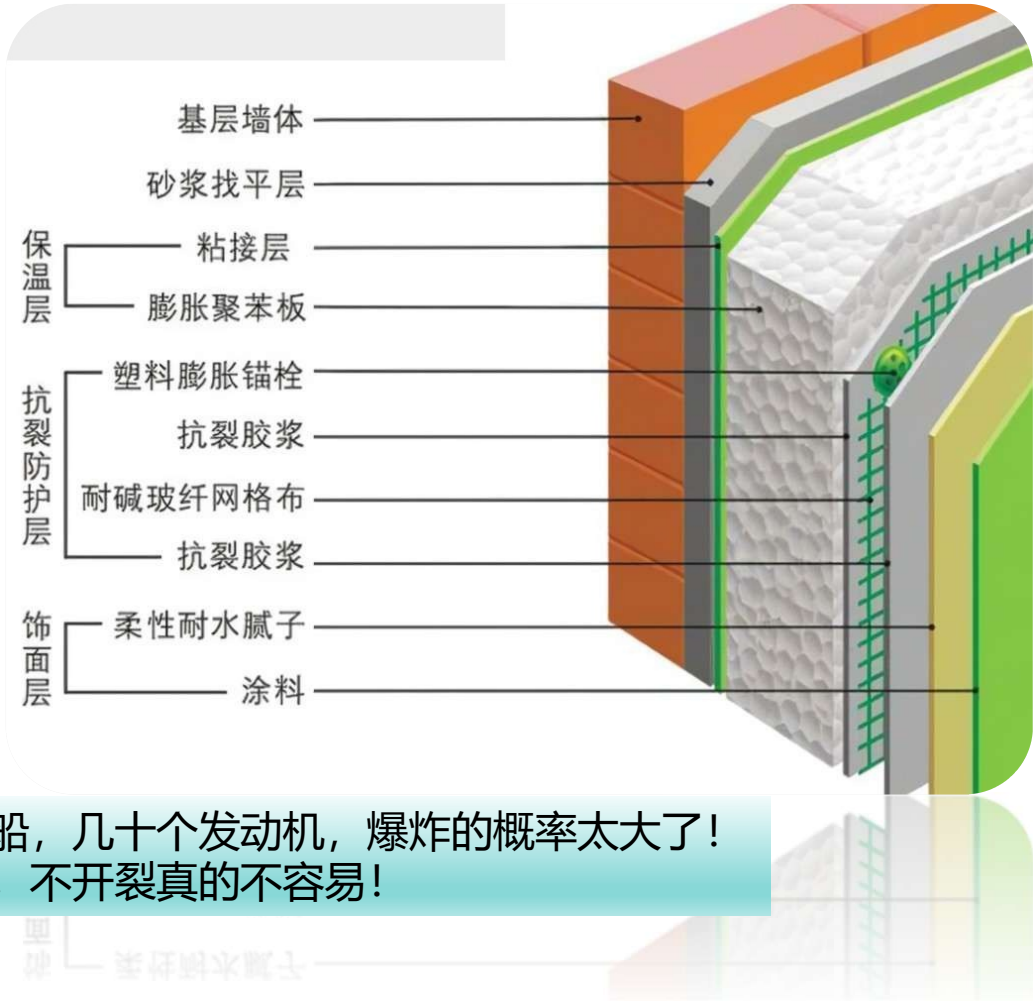
Defects in traditional schemes lead to problems such as cracking and short service life of external walls, which are widespread across the country. Are they all due to poor supervision and cut - corners?

The complex structure of the wall is one of the important root causes, resulting in various complexities. It is easy to imagine the possible mistakes!

Inconsistent expansion coefficients are the second root cause. Defects in the principle lead to problems in the design itself.

The bonding between different materials is the third root cause, lacking sufficient rationality. New materials and new technologies have not kept up. Without the support of new materials, it is impossible to avoid the high probability of cracking!

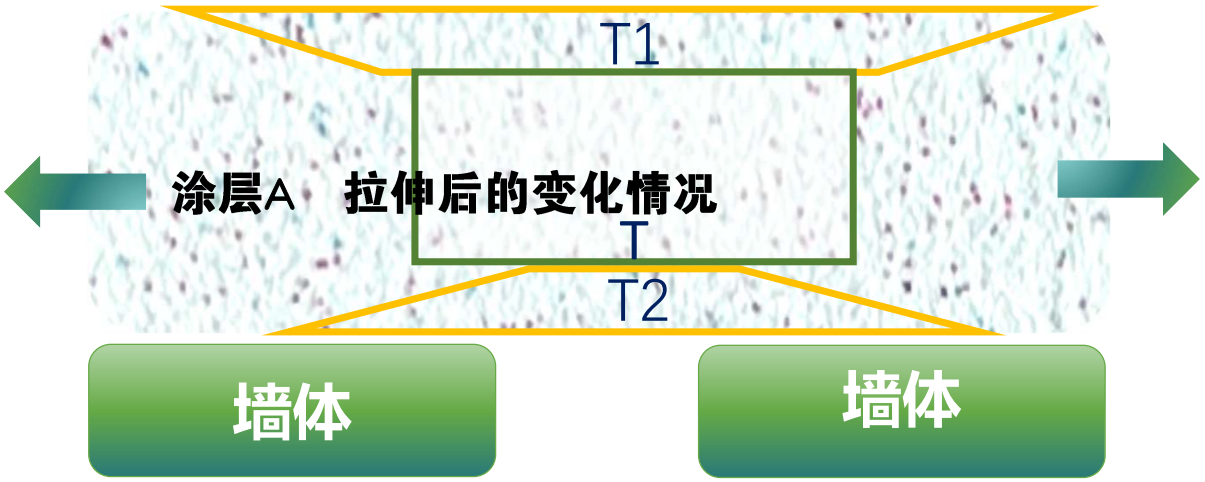
For the structure in the right picture, without the addition of flexible coatings, cracking cannot be avoided! The delamination and shelling of the anti - crack mortar layer and insulation are just a matter of time, and the probability of delamination within 2 years is very high!



这复杂的外墙结构，像不像马斯克的龙飞船，几十个发动机，爆炸的概率太大了！
这样的复杂的墙体结构、性质各异的材料，不开裂真的不容易！

9 Innovation Theory: There is a Way to Resist Cracks

Principle of Dynamic Crack Resistance and Prevention A



- Coating thickness: 3mm, Wall crack: 2mm
- Collapse of the surface layer T1: Thickness not exceeding 0.5mm, maximum width 40mm
- Collapse of the bottom layer T2: Thickness not exceeding 0.5mm, maximum width 6mm
- Overall coating becomes thinner, with the thickness reduced within 1mm
- Cross - sectional area calculation: T = T1 + T2, T is the newly added rectangular part
- Internal stress of the coating slowly dissipates. After internal reconstruction is completed again, T2 = 0

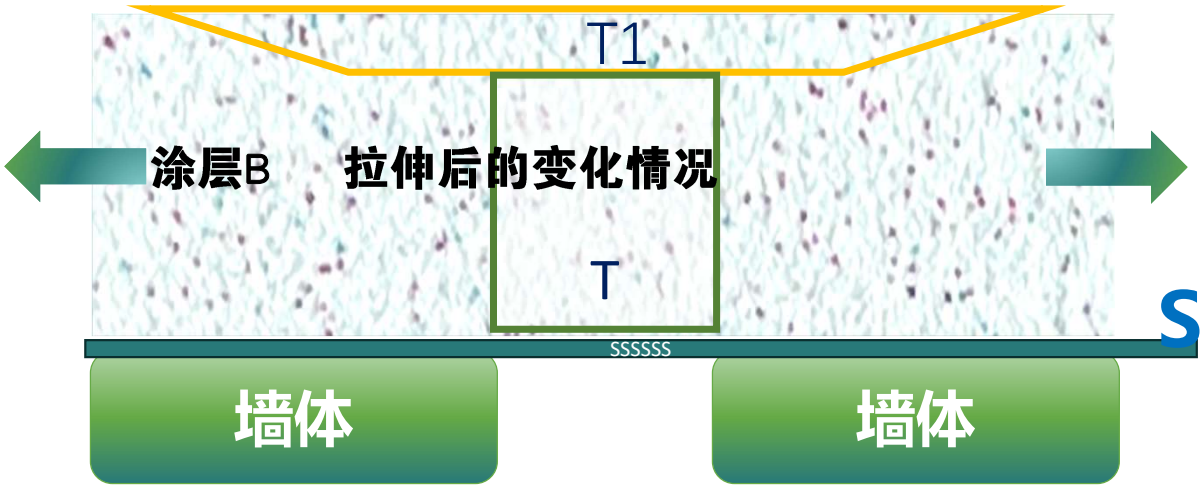
Cracking is the overall movement of the wall.

Conservative estimation: Beyond 20mm from the crack, the wall and the coating can be considered relatively stationary and synchronized, regarded as the same rigid body moving left and right, pulling the middle part. So, it can be understood that 20mm is stretched by 1mm.

9

Innovation Theory: There is a Way to Resist Cracks

Principle of Dynamic Crack Resistance and Prevention B



- Flexible Coating + OMT Special Mesh Cloth
  S = Transverse Tensile Coating
- Schematic Diagram of Changes 2
  Coating thickness: 3mm, Wall crack: 2mm
- Collapse of the surface layer T1
  Thickness not exceeding 0.5mm, maximum width 30mm
- Bottom separation zone (blue b):
  Length not exceeding 40mm
- Overall coating becomes thinner, with the thickness reduced within 1mm
- Cross - sectional area calculation:
  T = T1, T is the newly added rectangular part
- Internal stress of the coating slowly dissipates, and internal reconstruction is completed again

Cracking is the overall movement of the wall.

Conservative estimation: Beyond 20mm from the crack, the wall and the coating can be considered relatively stationary and synchronized, regarded as the same rigid body moving left and right, pulling the middle part. So, it can be understood that 10mm is stretched by 1mm.

9

Supercomputing Simulation of Dynamic Crack Resistance

A Masterpiece of Materials Science + Mechanical Model + Climate Model

Input a large amount of structural data, material parameters, and climate data, simulate dynamic changes in a super - differential manner, and conduct microsecond - level model change analysis to accurately and dynamically deduce the overall state of the building's external wall, the performance changes of the coating, and the appearance changes, forming accurate predictions.

In future old - building renovations, supercomputing simulation will be fully introduced, forming a scientific prediction mechanism. The design schemes will be very precise. The expected is the future, and the design is the future.

A Masterpiece of Materials Science + Mechanical Model + Climate Model

"Design the Future

Simulate the Future

It is the Future"

10

Supercomputing Simulation: Foresee the Future

Supercomputing Simulation: Foresee the Future

Foresee the Future of Architecture?

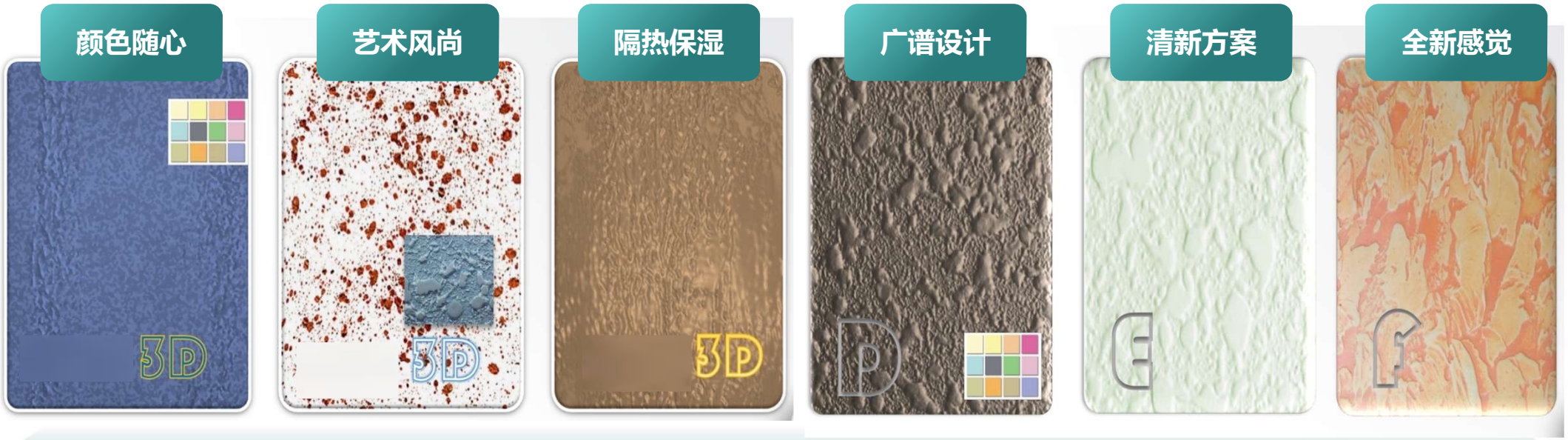
Who can know what the future of the Louvre will be like?
Working Scenes of the Louvre Renovation
Establish a Clear Theoretical Model
Obtain Sufficient Parameters
Powerful AI Computing Power

11 图集简编

图集简编

Compendium of Atlases

11 图集简编



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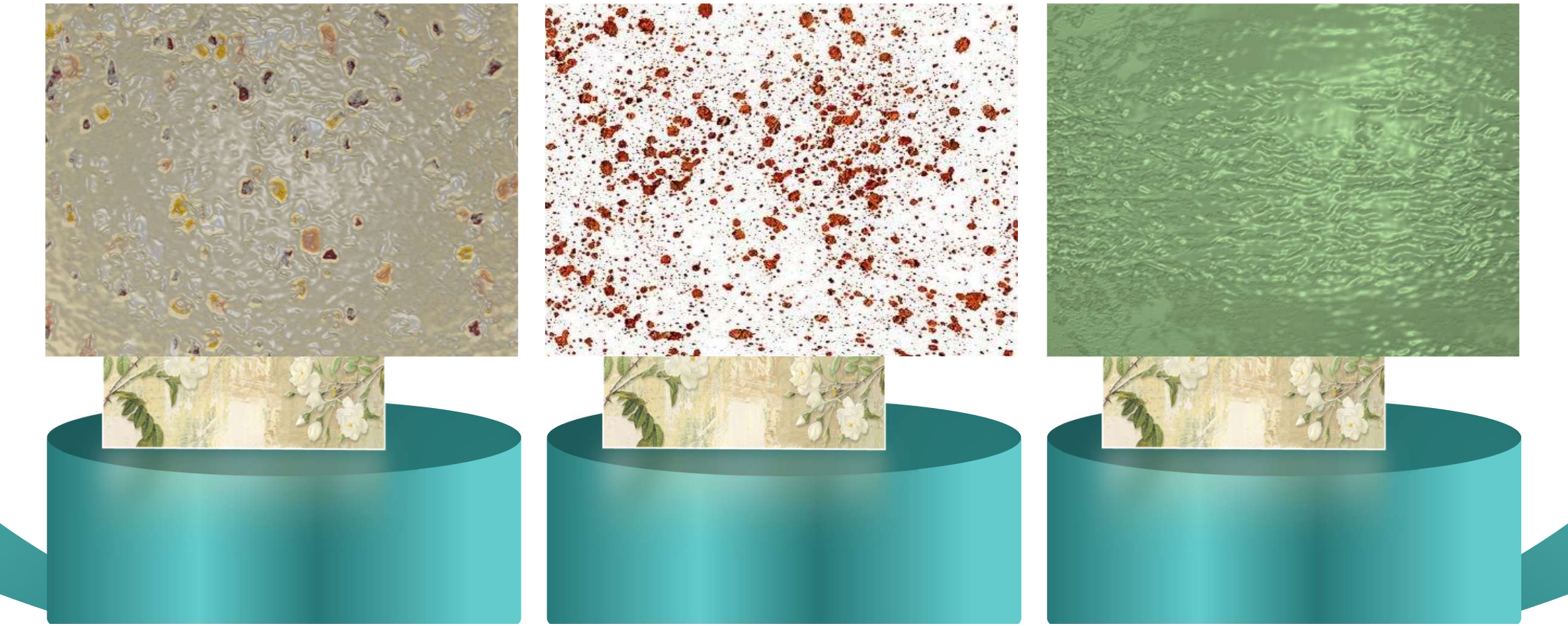

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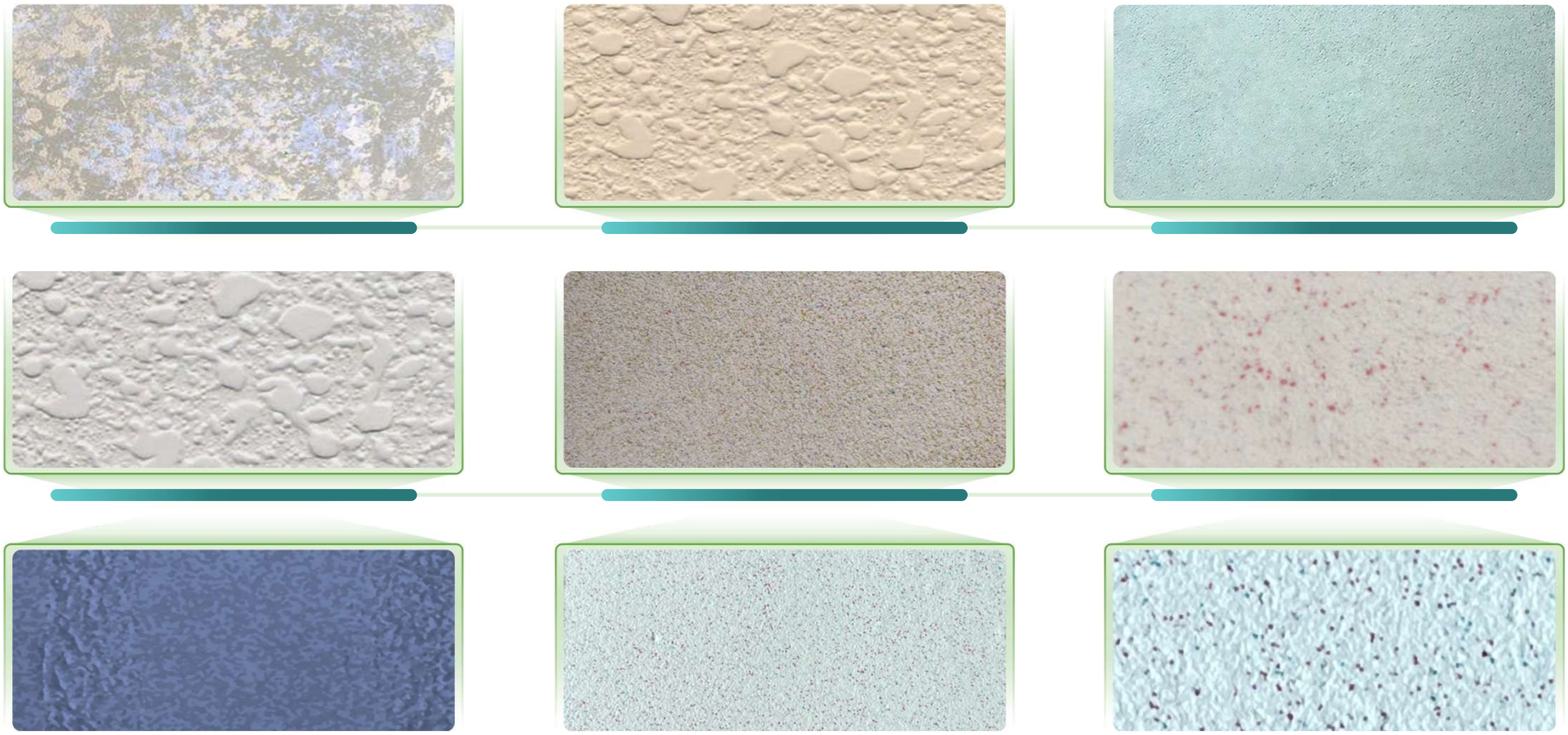

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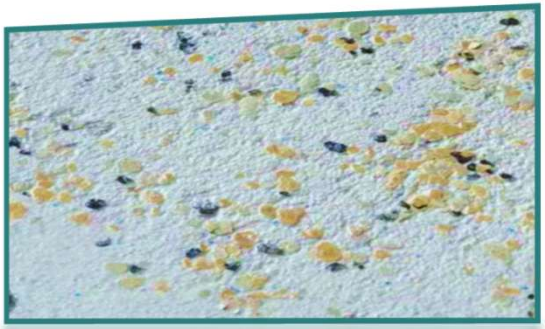

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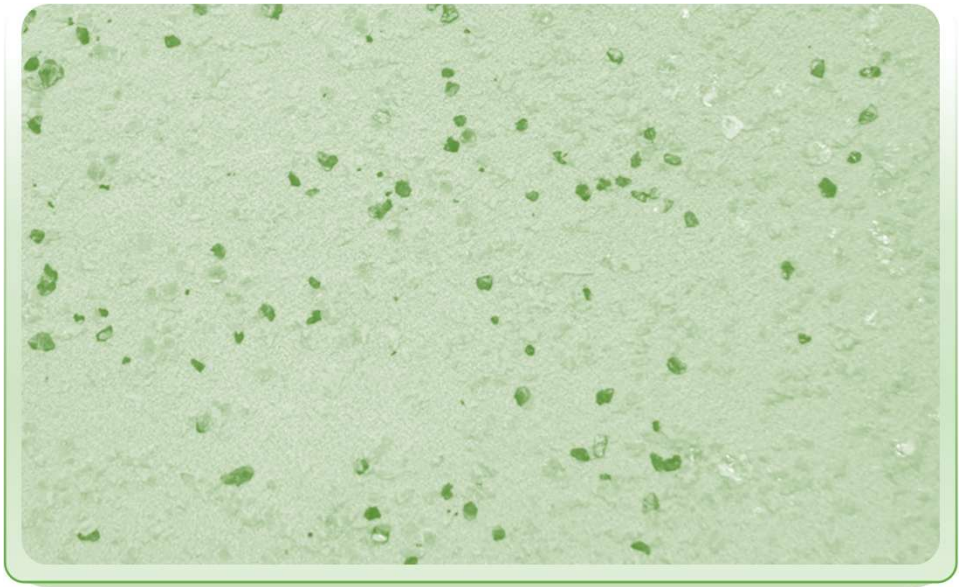

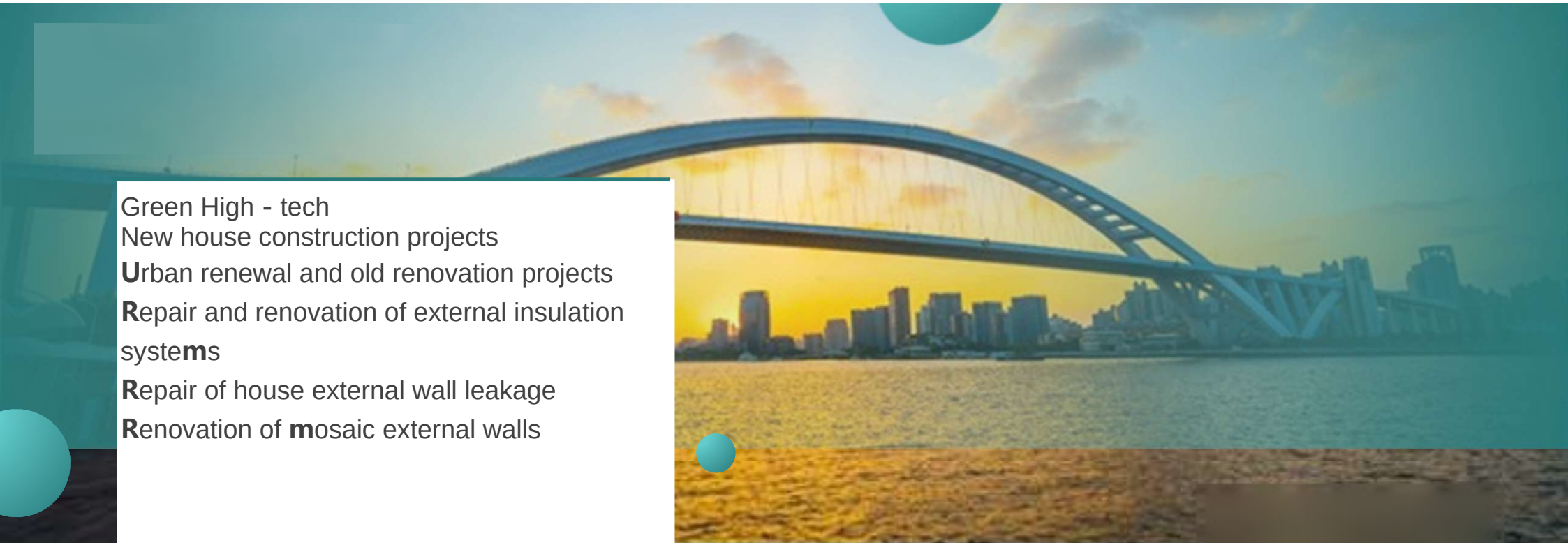

Green High - tech
New house construction projects
Urban renewal and old renovation projects
Repair and renovation of external insulation syste**m**s
Repair of house external wall leakage
Renovation of **m**osaic external walls

Villa renovation
Provide you with detailed product technical consultation
Provide you with overall solutions for architectural coatings
Super **S**trong **C**rack **R**esistance**,** Waterproof**,** **T**her**m**al Insulation**,** **S**ound Insulation**, 20** - year Long - life Worry - free
Flexible wall surface**/**three - di**m**ensional color**/**ther**m**al insulation and heat preservation**/**soun insulation and noise reduction**/**waterproof and **m**oisture - proof**/**tough crack resistance
Solve the ther**m**al insulation and heat preservation of top floors**,** west gable walls**,** and cold gable walls**/**war**m** in winter and cool in su**mm**er**/**healthy and environ**m**entally friendly**/**green and low - carbon