



ALUMINUM EXPANDED METAL PANEL

ARCHITECTURAL & DECORATIVE



<https://chencaimetal.com>



CHEN CAI Aluminum expanded metal panel provide versatile and customized solution for building exterior façade and interior ceiling system.

We provide turnkey solutions from design, fabricate, installation and after sales which create series of unique projects both at home and abroad.

Contents:

General Introduction

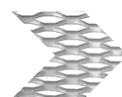
Projects shows

Pattern shows

Technical information

More information please refer to our website:

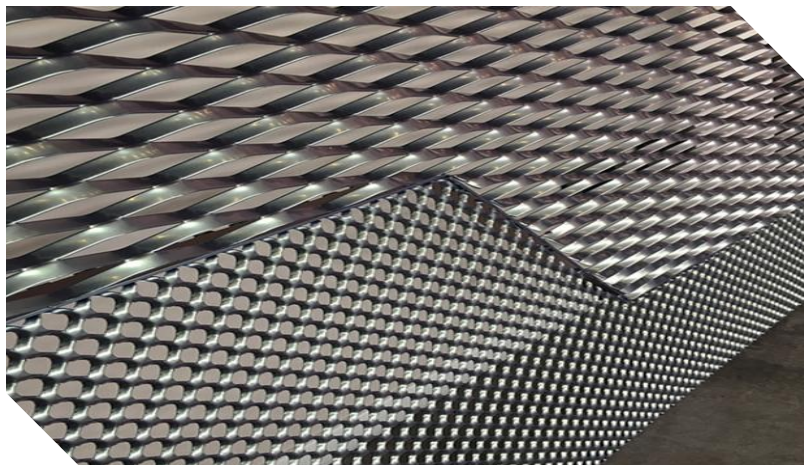
<https://chencaimetal.com>



Technical specifications

Aluminum Expanded Metal is a sheet product that has been slit and stretched to a wide array of diamond shaped openings.

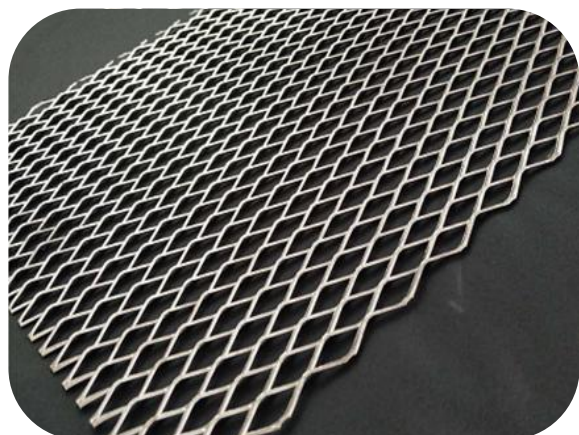
Aluminum Expanded Metal offers savings in weight and metal, free passage of light, liquid, sound, and air, while providing a decorative or ornamental effect.



Patterns :

Different sheet thickness and materials of metal can be chosen. L.W.D (Long Way Diamond) and S.W.D. (Short Way Diamond) are commonly used to indicate the desired length and width of the diamond shaped mesh holes.

Regular pattern



Flattened pattern



Material types:

Three types of aluminum are most commonly use:

1 series (alu≥99.5%): aluminum 1060, 1050, 1100 (1060 model is most popular).

3 series (include aluminum, manganese): aluminum 3003.

5 series (include aluminum, magnesium): aluminum 5005 and 5052.

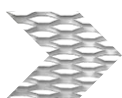
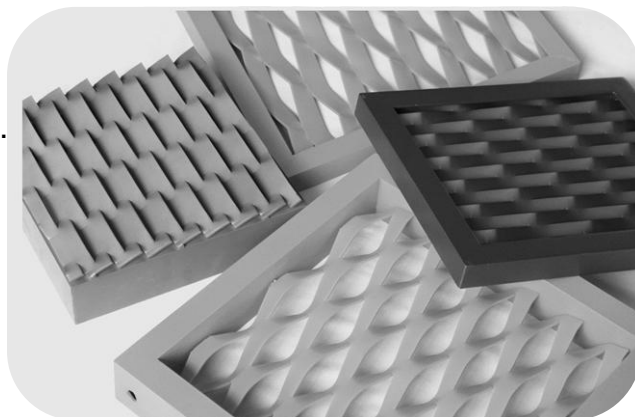
Difference between 3 types of materials:

Ductility/stretch ability: 1series>3series>5series.

Toughness: 1series<3series<5series

Cost: 1series<3series<5series

We can choose or recommend most suitable material model according to your actual application and preference.



Technical specifications

Surface treatment: For Architectural and decorative use, there are mainly 3 types of finish treatment methods : *anodizing, powder coating and PVDF*.



Pre-treatment

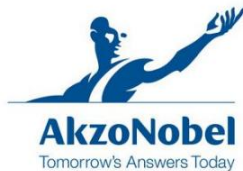


PVDF coating process

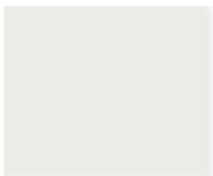
Brand of coating : Jotun, Tiger, PPG, AKZO

All of the coatings we use are famous brand imported from abroad and are satisfied with **AAMA standard**.

- 1.AAMA2604 : 10 years warranty
- 2.AAMA2605 : 15 years warranty
- 3.AAMA2606 : 20 years warranty



Color: Any color is workable. Some popular color are as following:



RAL
9003



RAL
7047



RAL
9006



RAL
1000



RAL
7006



RAL
1002



RAL
5015



RAL
4005



RAL
1016



RAL
9005

Production Process (PVDF)



1. Raw material



2. Cutting



3. Stretching and slitting



4. Levelling



5. Pre-treatment



6. Hanging



7. Primer coating



8. Finish coating



9. Vanish coating (UV)



10. Drying



11. Color testing



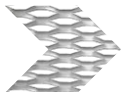
12. Coating thickness testing



13. packing



14. shipment



Fixing system (ceiling system)

Ceiling details show from up and down



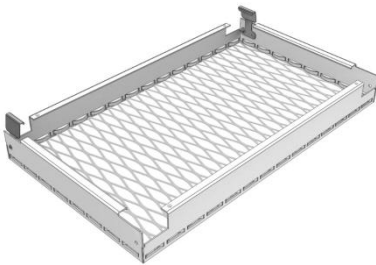
upside pattern 1



upside pattern 2



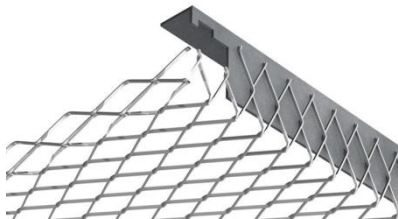
upside pattern 3



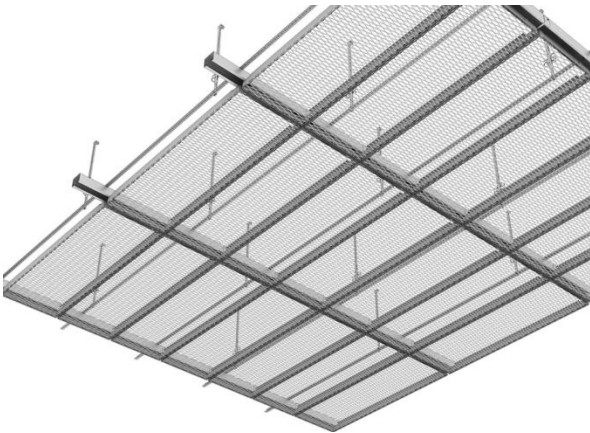
upside pattern 4



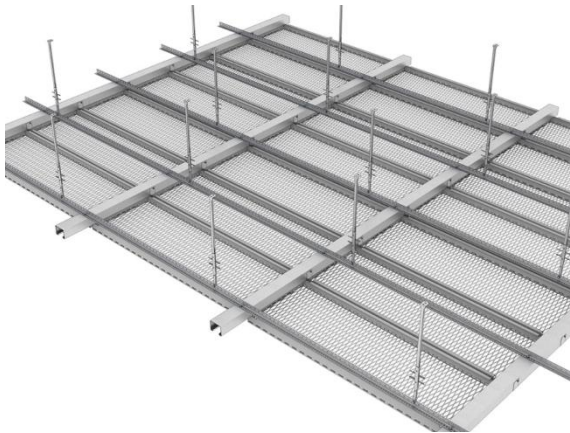
downside pattern 1



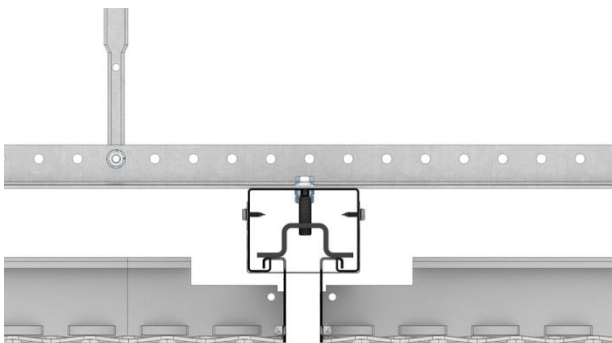
downside pattern 1



downside show after installation



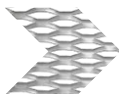
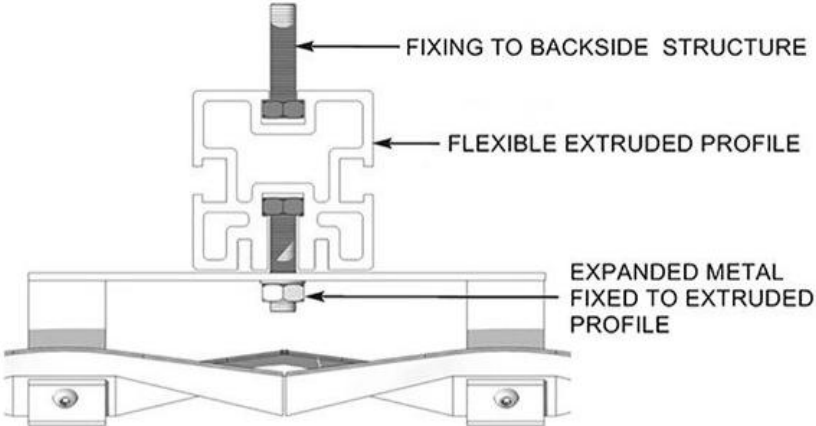
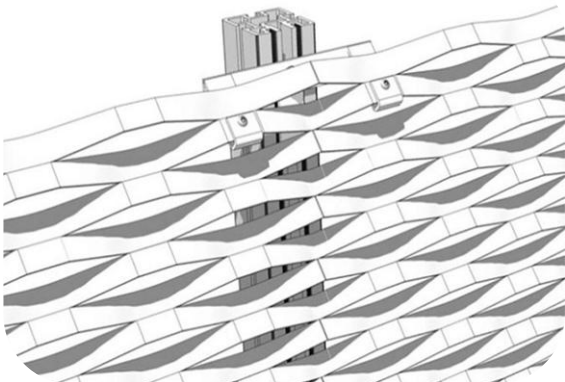
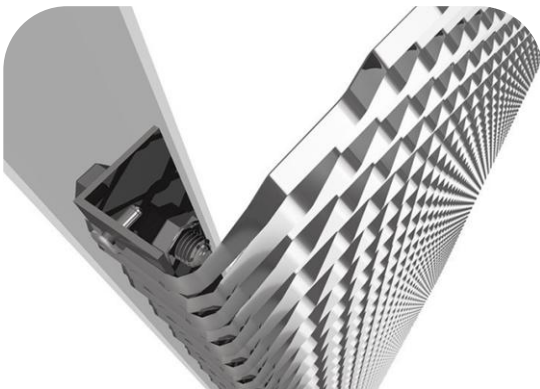
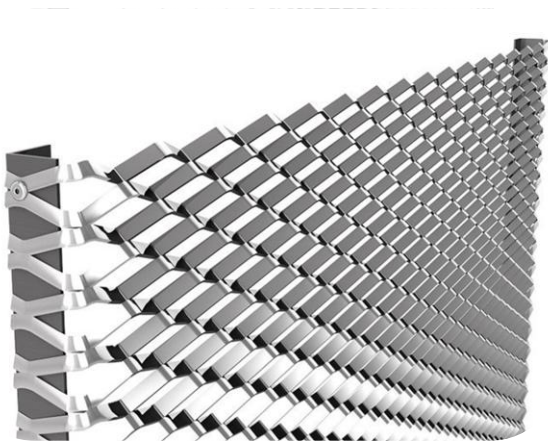
upside show after installation



joint details show

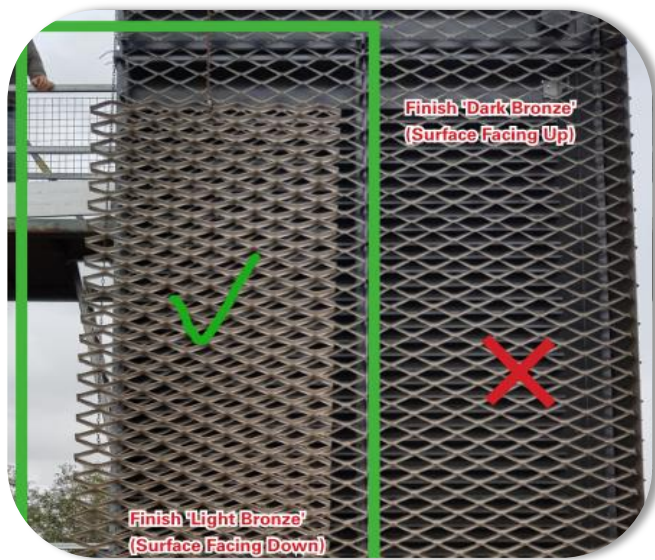
The fixing system is designed based on the mesh specification and actual site situation, please contact our sales for detailed solution.

Fixing system (building facade)



Sample making

Step 1: Finish and orientation confirmation

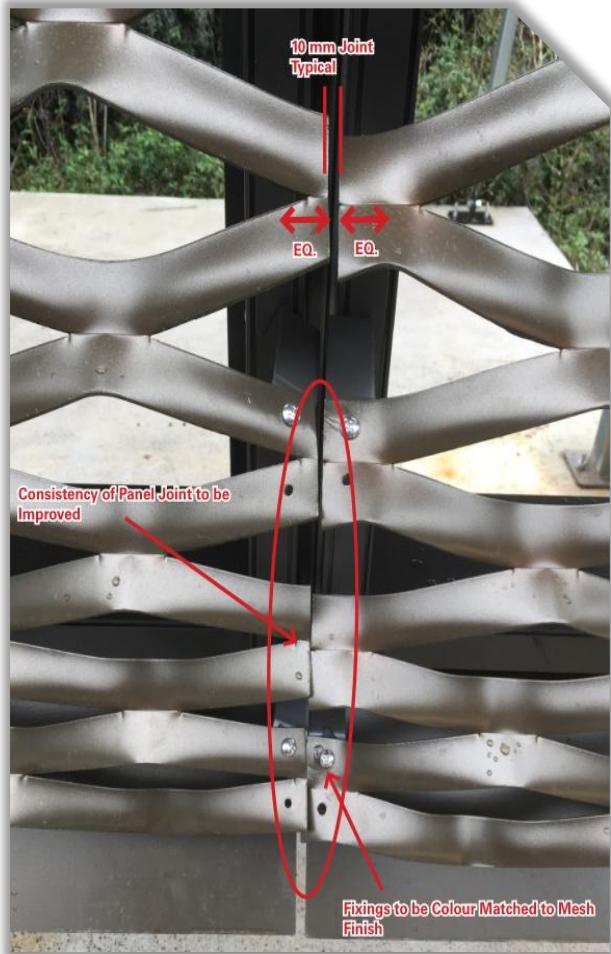


light/dark bronze
surface facing up/down



light/dark bronze
surface facing up/down

Step 2: Installation details confirmation (vertical panel joint and edge profile at corner)



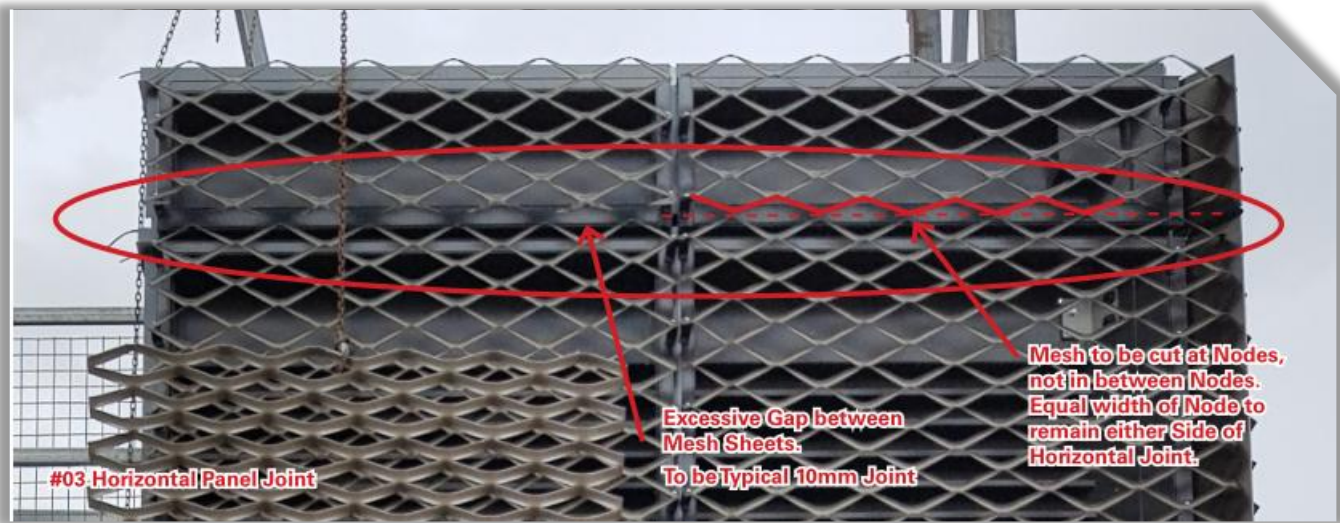
vertical panel joint



edge profile at corner

Sample making

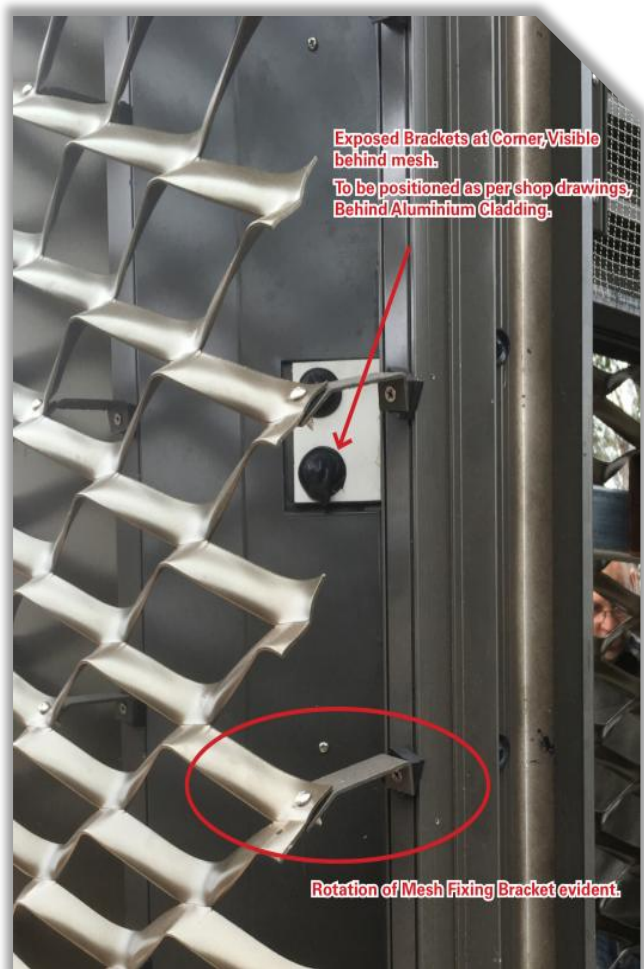
Step 3: Installation details confirmation



horizontal panel joint



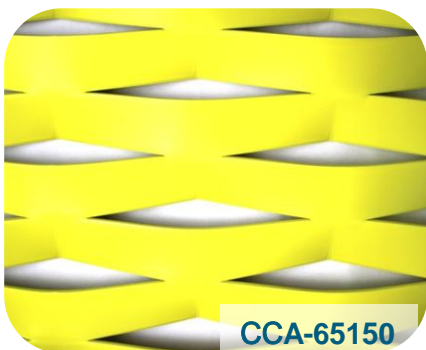
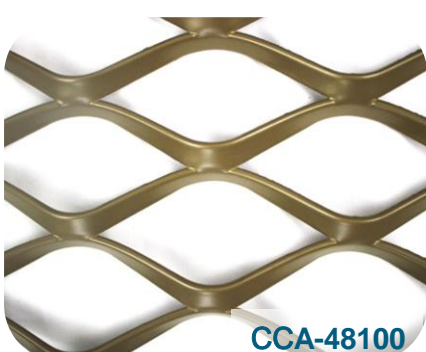
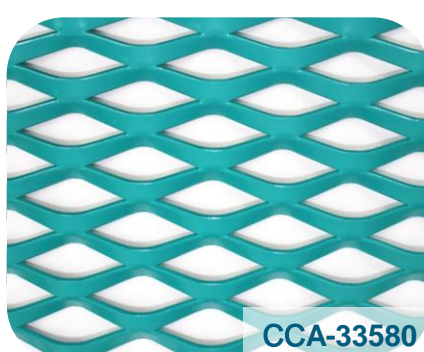
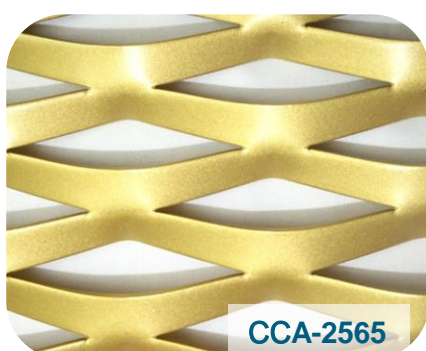
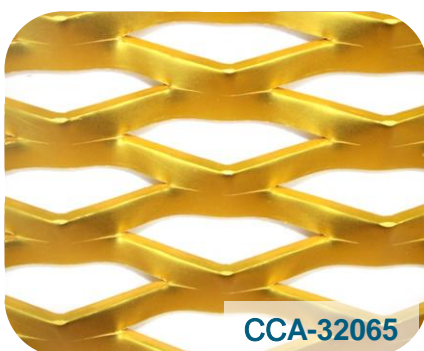
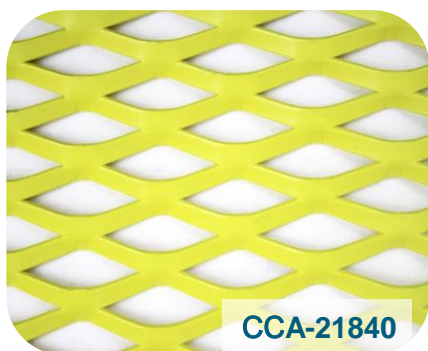
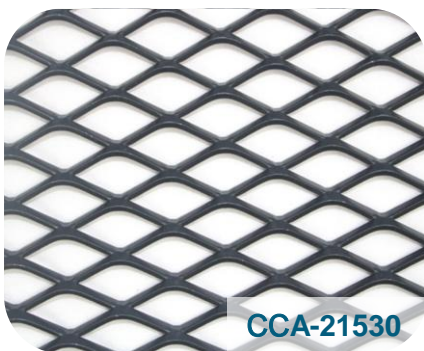
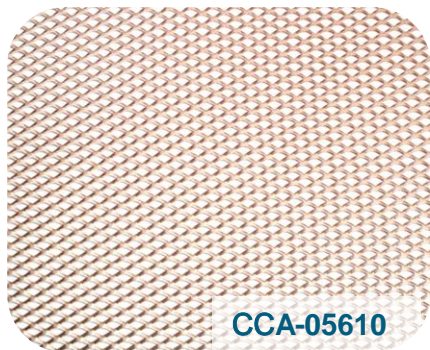
consistency of mesh width



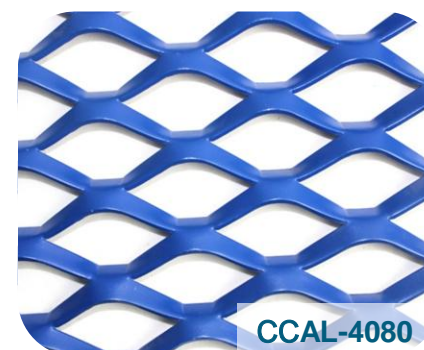
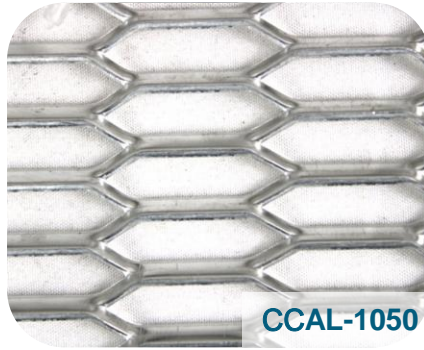
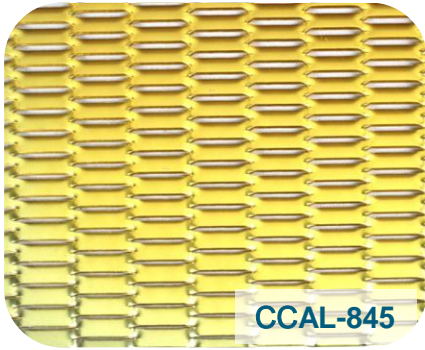
mesh fixing bracket

For each project, before formal production, we insisit on making sample test to solve all uncertainty.

Popular Patterns show- Diamond hole

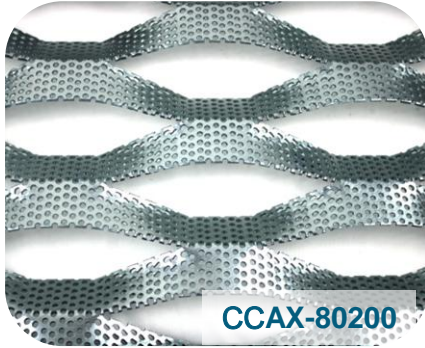
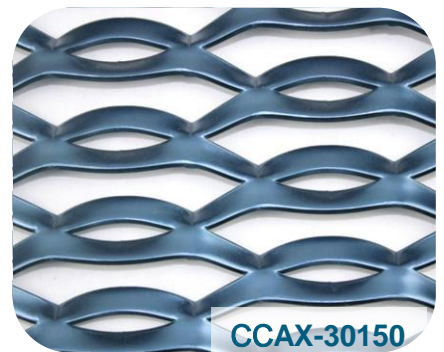
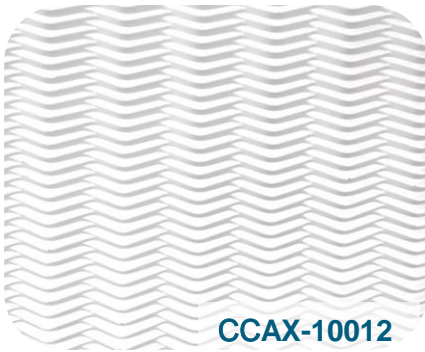


Popular Pattern Show- Hexagonal Hole



Chen Cai Co., LTD has designed and manufactured 25 patterns of hexagonal aluminum, Please contact us for more patterns and detailed specification.....

Popular Pattern Show- Irregular Hole/Pattern

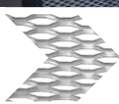
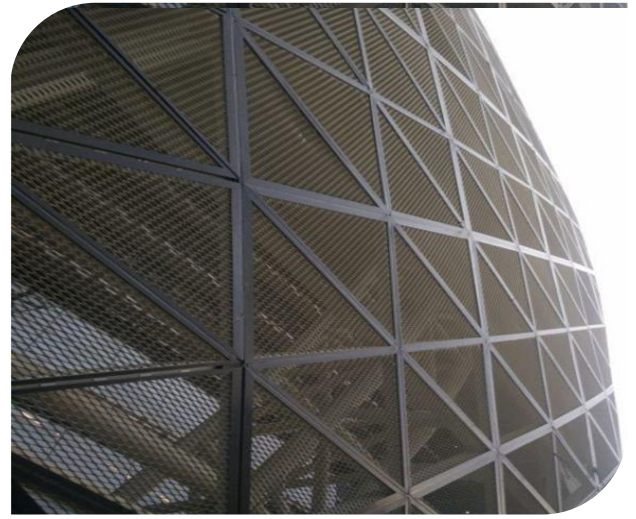
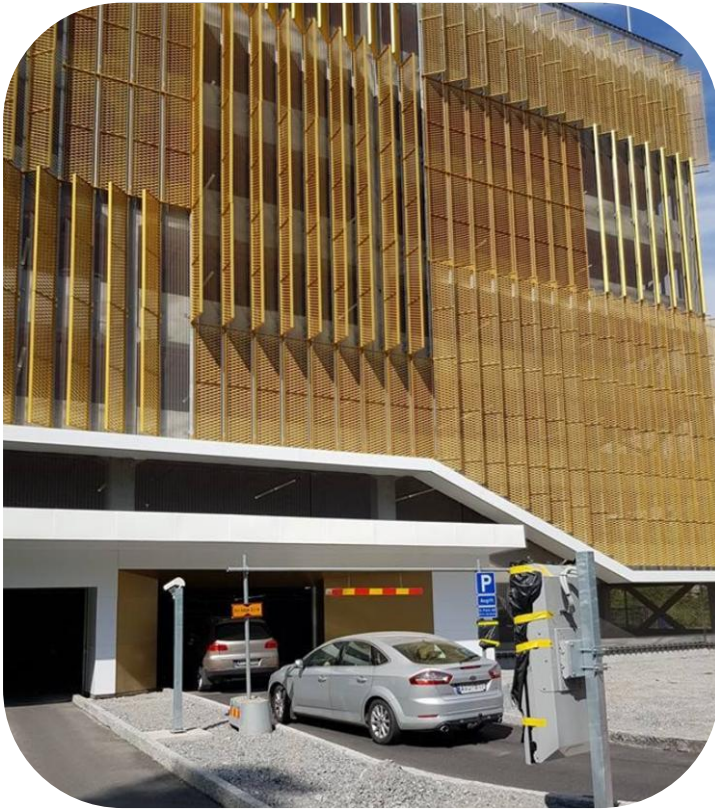


The irregular patterns could be designed according to the site situation and aesthetical requirements.

The functions of **aluminum expanded metal** are very versatile. Openings formed in fabricating process allow air, sound, light and heat to pass through.

The decorative patterns are mainly used for aesthetic purposes such as building façade, interior ceiling, projection screen, canopy screen ,enclosure etc...

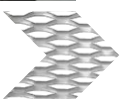
Applications: Building façade.



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