

## Comparison of ACP with Other Materials

Global users often raise the following questions, which help to understand the differences between aluminum composite panels (ACP) and other materials in terms of performance, cost, application, and maintenance:

### 1. What are the advantages and disadvantages of ACP compared to solid aluminum panels?

Advantages:

ACP is lighter, more affordable, easier to install, and offers better flatness at the same thickness.

Disadvantages:

Solid aluminum panels are generally more durable, capable of withstanding greater impact and loads, suitable for high wind pressure areas, and often have better fire performance.

### 2. What is the difference between ACP and glass curtain walls?

ACP:

Lightweight and easy to install, suitable for diverse architectural facade designs.

Glass Curtain Walls:

Provide a modern and transparent appearance but are heavier and more expensive, requiring stronger frame structures. They are ideal for buildings needing natural light.

In many cases, ACP is combined with glass curtain walls to integrate metallic textures and vibrant coatings into the transparent glass design. This not only compensates for the monotony of glass curtain walls but also adds modernity, vibrancy, and layered aesthetics to building exteriors.

### 3. How does ACP compare to stainless steel panels in terms of performance and cost?

ACP:

More affordable, easier to install, and provides good corrosion resistance.

Stainless Steel Panels:

Stronger and more corrosion-resistant, ideal for high-humidity or corrosive environments but more expensive and costlier to install.

ACP offers a wider variety of surface treatments (e.g., colors and coatings), while stainless steel panels have more limited options.

### 4. How does ACP compare to wood?

ACP:

Durable and moisture-resistant, making it suitable for challenging environments.

Wood:

Prone to deformation and decay in high-humidity environments but offers a natural look and texture, making it ideal for specific styles in interior decoration.

ACP is easier to maintain, while wood requires regular anti-corrosion treatment and upkeep.

### 5. How does ACP compare to stone (e.g., marble)?

ACP:

Much lighter and easier to install, making it suitable for high-rise building facades.

Stone:

Offers unique textures and a premium appearance but is heavier, more complex to install, and more expensive.

Modern ACP can replicate stone finishes using roller coating technology, providing a cost-effective alternative.

### 6. What are the differences between ACP and ceramic tiles for exterior walls?

ACP:

Lightweight and easy to install, especially suitable for high-rise facades.

Ceramic Tiles:

More durable and impact-resistant, making them suitable for flooring or load-bearing wall applications.

ACP offers more options in terms of colors and finishes, while ceramic tiles provide a natural texture and tactile experience.

### 7. How does ACP compare to gypsum board?

ACP:

Offers better durability, moisture resistance, and fire performance, making it suitable for harsher environments.

**Gypsum Board:**

Lightweight and low-cost, ideal for indoor partitions and ceilings but not suitable for humid or high-temperature environments.

ACP offers diverse decorative effects (e.g., gloss, matte, textures), while gypsum board has limited decorative options.

#### 8. How does ACP compare to plastic sheets (e.g., PVC)?

**ACP:**

Superior in strength and durability, particularly in outdoor applications where it resists weathering and maintains stability.

**Plastic Sheets:**

Lower cost and suitable for budget-friendly interior applications, but prone to deformation or fading under sunlight and high temperatures.

ACP generally has better fire resistance than PVC sheets, making it more suitable for fire-regulated spaces.

#### 9. What are the differences between ACP and aluminum honeycomb panels?

**ACP:**

Relatively lightweight, but aluminum honeycomb panels are even lighter with higher strength and wind resistance.

**Aluminum Honeycomb Panels:**

More expensive, ideal for premium building facades, while ACP is better for cost-effective projects.

Both offer similar flatness, but honeycomb panels have better bending resistance, making them suitable for large-span structures.

These comparisons help clients understand the suitability of ACP for various applications and how it differs from other materials, enabling them to make informed choices for their projects.