Composite vs. Aluminum vs. Steel

An architect's guide to exterior siding, cladding and related architectural systems

Exterior materials shape a building's identity, but selecting a system requires more than choosing a finish. Architects and project teams must evaluate intended use, assembly design, local exposure, code requirements, installation methods, maintenance and procurement. This guide introduces three exterior material categories available through All Green Building Products (AGBP): composite, aluminum and steel.

1 | Composite exterior systems

Composite products can offer a wood-inspired appearance without using conventional solid-wood boards. Formulations vary substantially among manufacturers, so no single performance characteristic should be assumed for every composite system.

Common applications

- Siding and wall cladding
- Soffits, ceilings and architectural accents where approved
- Decking, screening or fencing when using profiles designed for those uses

What to evaluate

Review finish and cleaning requirements, moisture and ultraviolet exposure, dimensional movement, fastening, ventilation and substructure requirements. A cladding profile should not be assumed suitable for decking or structural uses.

AGBP solution: NOVANO composite systems offer profiles for siding, cladding, decking and other specified applications. Confirm the exact profile and current technical documentation for each use.

2 | Architectural aluminum systems

Aluminum offers lightweight architectural profiles and a range of finish options, including wood-look treatments. The installed system's characteristics depend on profile geometry, coatings, attachments and detailing.

Common applications

- Siding and architectural cladding
- Soffits, ceilings and accent features
- Decking when using a dedicated aluminum decking system

What to evaluate

Consider thermal expansion, attachment methods, coating durability, dissimilar-metal contact, environmental exposure and cleaning recommendations. Coastal or other aggressive environments may require particular attention to finishes and fasteners.

AGBP solution: LYNX offers aluminum siding and architectural profiles, plus dedicated Vega aluminum decking. Confirm the selected application against current product documents.

3 | Architectural steel siding

Formed steel siding provides a crisp plank expression and can be specified with solid-color or wood-grain finishes. Protective coating systems and installation detailing are central to long-term appearance and performance.

Common applications

- Exterior siding
- Selected façade and accent-wall applications
- Other applications only when expressly supported by manufacturer instructions

What to evaluate

Review corrosion protection, coating and edge conditions, fastening details, scratches or handling damage, profile orientation and applicable installation limitations. Do not assume that siding profiles are suitable for decking or unrelated applications.

AGBP solution: VESTA steel siding offers a contemporary plank aesthetic in available solid and wood-grain finishes. Confirm current colors, profiles and technical requirements before specification.

4 | Material comparison at a glance

Consideration	Composite	Aluminum	Steel
Typical expression	Wood-inspired profiles	Linear metal; wood-look options	Defined plank profiles
Siding / cladding	Selected systems	Selected systems	Selected systems
Decking	Purpose-designed profiles	Purpose-designed systems	Not assumed
Key detailing	Movement; fasteners; ventilation	Thermal movement; attachments	Coatings; edges; fasteners
Maintenance review	Finish and cleaning instructions	Coating and cleaning instructions	Coating care and corrosion exposure
Fire / code review	Product and assembly-specific	Product and assembly-specific	Product and assembly-specific

This table is a preliminary selection aid, not a performance ranking or statement of code compliance.

5 | Applications by project type

Multifamily residential

Façades, accent walls, soffits and amenity areas may call for different systems. Evaluate building height, fire and life-safety requirements, maintenance access and procurement timing.

Hospitality and resorts

Material appearance and coordinated outdoor design are often priorities. Evaluate sunlight, moisture, salt exposure, high-use areas and cleaning expectations.

Commercial and office

A mix of cladding profiles and finishes can support consistent architectural detailing. Review façade attachment, movement, project documentation and replacement access.

Custom residential

Siding, soffits and decking may benefit from coordinated finishes, but each use requires its own approved profile and installation details.

Education and institutional

Consider durability, maintenance, code compliance, documented system performance and the specific requirements of the complete wall assembly.

6 | Questions to ask before specification

- What architectural expression and finish are required?
- Where will the material be installed, and is the proposed profile approved for that application?
- What building-code, fire-performance and assembly requirements apply?
- What environmental exposure and maintenance conditions are expected?
- Which substructure, attachment, movement and weather-resistance details are required?
- What are the budget, lead-time and availability constraints?
- Which current manufacturer documents, samples and warranties are needed for review?

7 | How AGBP supports material selection

All Green Building Products helps architects, designers, developers and contractors compare exterior materials, obtain samples and find manufacturer documents. Our portfolio includes NOVANO composite systems, LYNX architectural aluminum and VESTA steel siding.

Planning a project? Contact AGBP to discuss material options and request samples. 909-393-2800 | www.allgreenbp.com

Important: This article is general educational information, not engineering, installation or code-compliance advice. Verify suitability, fire and code requirements, environmental claims, installation instructions and warranties against current manufacturer documents and the specific project assembly.

PRODUCT DOCUMENTS AND PROJECT SUPPORT

NOVANO specifications, installation, care and warranties

LYNX specifications, installation, care and warranties

VESTA specifications, installation, care and warranties

LYNX Vega aluminum decking product information

Read the full online comparison and request samples

Updated November 17, 2026 | Product-specific requirements take precedence.