



## » PRODUCT OVERVIEW

# Hammerhead™ FR Flame Retardant Composite Panels

Hammerhead™ FR Flame Retardant Composite Sandwich Panels are an innovative, large-format solution for various structural applications, including modular construction, walls, flooring, garage doors, and industrial doors. These panels are available in widths up to 10 feet with customized lengths.

Flame-retardant technology uniquely embedded into the panel materials provides robust and durable fire performance without the need for additional sheets or coatings. The panels meet ASTM E84 Class A standards for flame spread and smoke density, and configurations are available to meet NFPA 286 corner room fire growth testing.

Not only do these panels provide excellent FR performance, they also offer lightweighting and production efficiency benefits. Weighing significantly less than traditional materials like wood, drywall, and framed wall assemblies, they enable easier and faster installation. Plus, their resistance to moisture, chemicals, UV, and corrosion ensures long-lasting durability and reduces maintenance costs.

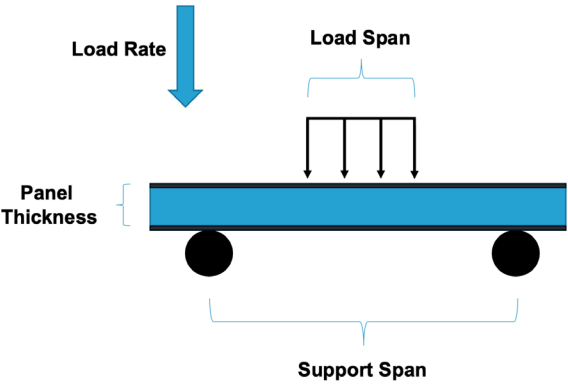
## KEY BENEFITS

- **Lightweight:** Significantly lighter than traditional materials such as wood, drywall, and framed wall assemblies, offering a lightweight yet durable solution for easier transport and installation, while maintaining structural integrity

- **Durability:** Resistant to rot, moisture, chemicals, UV, and corrosion, ensuring long-lasting performance
- **Efficiency:** Consolidated structural panel reduces labor and assembly time, maintaining structural integrity throughout the installation process
- **Versatility:** Can replace gypsum and drywall in wall construction, offering strong adhesive bonding properties and paintable surfaces
- **Material Consolidation:** Integrates flame retardant properties and eliminates the need for additional sheets or coatings for fireproofing, simplifying the building process
- **Highly Customizable:** Avient offers a wide range of custom size configurations and panel options, allowing builders to meet specific project needs
- **Sustainability:** FR technology is not halogenated or phosphorus-based, and is made with benign ingredients at low concentrations, making it an environmentally friendly option

## APPLICATIONS

- **Modular Construction Structures:** Ideal for rapid assembly, reducing construction time and costs
- **Walls:** A durable and lightweight alternative to traditional wall materials, suitable for both interior and exterior applications
- **Flooring:** Provides a strong and stable base for various flooring systems, withstanding heavy loads and traffic
- **Garage and Industrial Doors:** Offers excellent strength-to-weight ratio and resistance to impact and weather, making it an excellent choice for demanding environments



## MECHANICAL PROPERTIES

Property	Unit	Hammerhead Composite Panel (non-FR)	Hammerhead FR Flame Retardant Panel
Areal Weight	(lb/sqft)	1.15	1.34
Thickness	(in)	1.02	1.02
Max Force*	(lbf)	447	508
Modulus*	(ksi)	323	321
Flexural Rigidity*	(lb*in^2)	85,000	84,000
R-Value	(/in)	4	4

\* ASTM D7249, 22" support span 4-point bend

## ASTM E84 FLAME SPREAD CLASSIFICATION

	Class A	Class B	Class C
Flame Spread Index	0–25	26–75	76–200
Smoke Developed Index	0–450		

## ASTM E84 FLAME SPREAD RESULTS

	Hammerhead Composite Panel (non-FR)	Hammerhead FR Flame Retardant Panel	
Panel Thickness	1 in.	1 in.	4 in.
Flame Spread Index	150	20	20
Smoke Developed Index	350	60	70
Class	C	A	A

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