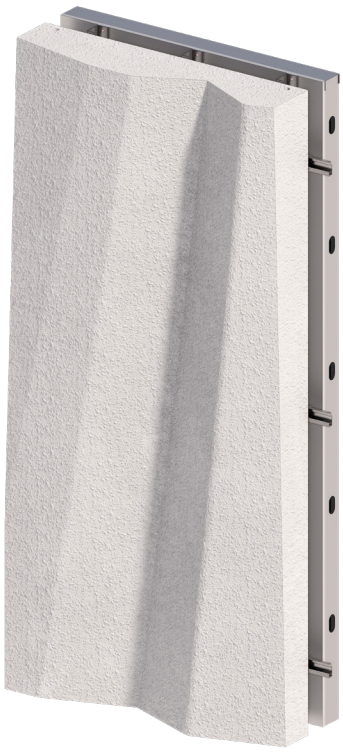


PRODUCT OVERVIEW

BranchClad™ GFRC is a rainscreen system that offers mass-customized design articulation. The system features Branch CompositeCore™— a digitally manufactured structure made up of 3D printed carbon fiber polymer matrix and robotically milled foam insulation. Branch CompositeCore™ panels are finished with a long-lasting GFRC(Glass Fiber Reinforced Concrete) finish that is self-cleaning and has consistent color retention. BranchClad™ GFRC is made exclusively by Branch Technology.

Unleash your creativity with sculptural panels. panels. Designers can create 3D patterns and shape buildings to activate new levels of innovation and ultimate design freedom. All panels can be unique. Stack bond or running bond panel layouts can be achieved with the rectangular shaped panels. CAD based software platforms like Rhino, SketchUp and Revit can be used to contour and shape the facade design surfaces. Branch offers helpful design guides, evaluation software, 3D modeling, and design assistance upon request.

APPLICATIONS

- New construction building enclosures
- Renovation/Re-clad of existing building enclosures
- Open joint system rainscreen
- Sealed joint barrier system
- Interior cladding and feature wall finish

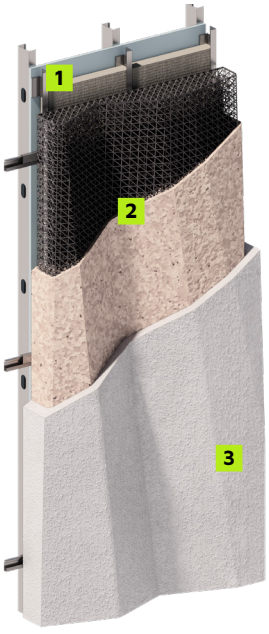
FEATURES & BENEFITS

- Design Freedom
- Long Lasting
- Large Format Panel Size
- High R-value (R-6 per inch)
- Zero Waste in 3D Printing
- Prefabricated
- Ease of Installation
- Manufactured in the USA

BranchClad™ GFRC **PANEL CHARACTERISTICS**

Maximum Panel Size	4' X 10'*
Minimum Panel Size	3' x 3'
Panel Depth	14 3/8" **
System Depth	17 3/4" **
Composite Core Articulation	8"
Total System Weight 4" 8" 12"	*** ≈13-17 PSF ≈19-24 PSF ≈25-31 PSF
Panel Weight	≈21 PSF***
Seams	3/4" or 1"
Deflection Limit	L/240
Typical GFRC Thickness	3/4"
GFRC Compresssive Strength ASTM C-109-08	10,030 PSI (73,981 kPa)
GFRC Flexural Strength ASTM C-348-08	690 PSI (4,757 kPa)
GFRC Tensile Strength ASTM C190*-85	550 PSI (3,792 kPa)

Maximum dimensions or units unless noted otherwise.
* Vertical or horizontal orientation.
** Depth will vary depending on articulation and/or aluminum rainscreen carrier system components.
*** Panel weights will vary per articulation and/or aluminum rainscreen carrier system components. Weight listed is based on a 4'x10' panel.



DESCRIPTION OF COMPONENTS

1 ALUMINUM RAINSCREEN CARRIER SYSTEM
Horizontal Rails
Vertical Rails
Brackets
Fasteners

2 BRANCH COMPOSITECORE™
Closed Cell Rigid Spray Polyurethane Foam
Carbon Fiber Reinforced ABS Polymer Matrix
Internal Metal C-Channel for Reinforcing
Exterior Grade Backer Board

3 GFRC FINISH SYSTEM
Glass Fiber Reinforced Concrete
Medium Sand Texture
Sto Lotusan Coating

INSULATION PERFORMANCE

ASTM E84 Surface Burning Characteristics of Building Materials on Closed Cell Rigid Spray Polyurethane Foam(SPF)

Intertek Report No. 1007456745AT-001A, dated 06/01/2012.

Also published under **NFPA 255, UL 723, UBC 8-1.**

FLAME SPREAD INDEX	SMOKE DEVELOPED INDEX
25	250
This material is **CLASS 1 OR CLASS A RATED**. *Panel depth not to exceed an average thickness of 10.5 inches (267 mm) per NFPA 285 compliance.	

ASTM C1029 Standard Specification for Spray-Applied Rigid Cellular Polyurethane Thermal Insulation.

ASTM C518 Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus. R-value at 75°F is 6.5/in.

GFRC PERFORMANCE

ASTM E488 Standard Test Methods for Strength of Anchors in Concrete and Masonry Elements.

ASTM C947 Standard Test Method for Flexural Properties of Thin-Section Glass-Fiber-Reinforced Concrete.

ASTM C672 Standard Test Method for Scaling Resistance of Concrete Surfaces Exposed to Deicing Chemicals

ASTM C531 Standard Test Method for Linear Shrinkage and Coefficient of Thermal Expansion of Chemical-Resistant Mortars, Grouts, Monolithic Surfacings, and Polymer Concretes.

ASTM C666 Standard Test Method for Resistance of Concrete to Rapid Freezing and Thawing.

ASTM C1029 Standard Specification for Spray-Applied Rigid Cellular Polyurethane Thermal Insulation.

CODE COMPLIANCE

ASTM E119 Fire Tests of Building Construction & Materials. Engineering Analysis 1AJP00295.000, dated 01/22/2022.

NFPA 285 Fire Propagation of Exterior Wall Assemblies. Intertek Report No. M4330.01-121-24-R0, dated 08/05/2021. Expanded capabilities per Engineering Analysis 1AJP00295, dated 10/12/2021.

ASTM E84 Surface Burning Characteristics of Building Materials. The StoColor Lotusan finish and Closed Cell Rigid Spray Polyurethane Foam are individually tested and Class A rated.

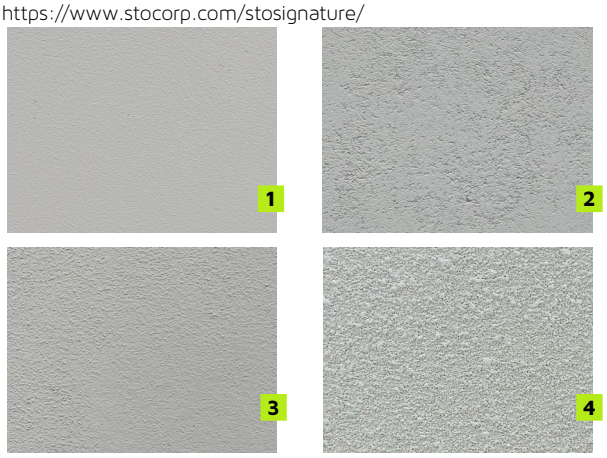
COLOR

BranchClad™ GFRC can be finished with natural concrete tones, manufacturer's standard colors or custom colors— setting a new standard for facade design. Opaque colors have excellent color consistency and retention. Refer to Sto's website for a wide range of colors and palettes.

FINISH TEXTURES

The GFRC (Glass Fiber Reinforced Concrete) finish system is a hand-troweled finish, topped with various textures and coated with StoColor Lotusan. The final finish and exposed Lotusan is a hydrophobic technology that keeps vertical buildings' surfaces clean and attractive. Refer to the Sto Corp. website for more information.

https://www.stocorp.com/stosignature/



1. Smooth, 2. Etched, 3. Fine Sand, 4. Medium Sand

ATTACHMENT

BranchClad™ GFRC is a rainscreen assembly that depends on a concealed aluminum rail system over appropriate building layers. Its function is to support the panel, drain rainwater, conceal fasteners and accommodate building movement. Panels ride directly on the rails. All panel fasteners are concealed within the cavity. The attachment system and components must be engineered to meet code requirements for each project.

INSTALLATION

BranchClad™ GFRC panels are prefabricated and ship complete with shop-applied finishes and some pre-installed attachment hardware. Pre-cut engineered metal rail supports can be shipped directly to the jobsite and fastened over the appropriate building layers. Install BranchClad™ GFRC panels to the metal rail supports starting at the bottom coursing. Coordinate flashing and sheet metal work to provide weather appropriate conditions at wall terminations. Installation shall be in accordance with manufacturer's instructions and approved shop drawings.

MAINTENANCE

Coated in StoColor® Lotusan, BranchClad™ GFRC requires limited maintenance and cleaning. Periodically, finishes may need to be cleaned to remove debris or restore the appearance of the building. Surface residue may be removed with manufacturer approved cleaning methods. Minor scratches may be touched up on-site by matching the finish and coordinating a StoColor® Lotusan Recoat application. Repair structural cracks or other damage to the façade immediately. Prevent cracks by adhering to manufacturer approved installation techniques. Sealants and other building components must be maintained to prevent water infiltration into or behind the system.

SUSTAINABILITY

Branch Technology is a leader in innovative prefabricated building material systems delivering high-quality products that set a new standard for sustainability. Branch offers long-lasting products that are as robust as they are revolutionary. Here are some ways that BranchClad™ puts our earth first.

- Life Cycle Assessments of Branch Technology Operations
- Environmental Product Declarations
- Zero-waste principals in 3D printing
- Zero/low vocs in all materials
- Recycled Materials in carrier board
- High insulation value for long term energy and carbon savings for in-use buildings
- Lower carbon footprint than concrete 3D printing methods
- This products Environmental Product Declaration (EPD) has been certified by UL.

WARRANTY

Branch Technology warrants that BranchClad™ components be free from major defects in manufacturing for a period of 1 year to commence on the date of substantial completion. Longer durations warranties are available.

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