

# **aFC** *cladding*

SUSTAINABLE SOLUTIONS

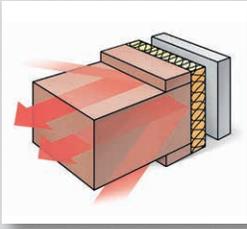


**American Fiber  
Cement Corporation**



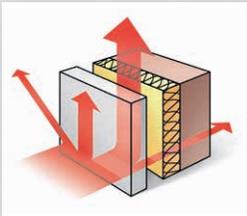
**CENBRIT**  
Building Better Days

# Rainscreen Cladding



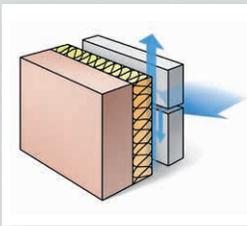
## Preventing thermal bridges

As the insulating material is on the outside of the structural wall, it can easily be mounted without interruptions caused by floor slabs. In this way, any thermal bridges that occur at each floor slab can be prevented. These thermal bridges are also the cause of surface condensation that may result in fungus growth.



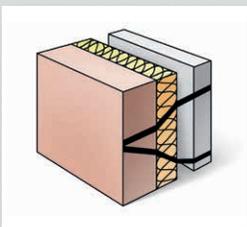
## Dissipating heat from the sun

The ventilated rainscreen cladding system has a cooling effect when temperatures outside are high. Most of the sun's rays are reflected away from the building. Heat passing through the exterior wall panel is partially dissipated by the ventilating effect of the space between the exterior cladding panel and the structural wall. Any residual heat managing to penetrate buildings is very minor.



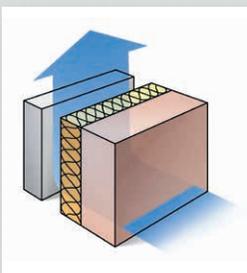
## Rainscreen

Architectural wall-cladding panels act as a rainscreen on the outside of the building and keep the structural wall absolutely dry. The air space connected to the outside air evacuates water and humidity that might have penetrated behind the wall-cladding panels through its horizontal or vertical joints. This water will never reach the load bearing wall and/or the thermal insulation.



## Protecting the basic structure and load-bearing wall against temperature variations

In view of the fact that the insulation material is applied to the outside of the building, changes in temperature are very minor compared with those found in conventional constructions where insulation is applied on the interior. This principle works in summer and winter in both hot and cold climates.



## Prevention of internal condensation

Insulation material can be applied to the outside of the structural wall because it is protected effectively by the architectural exterior wall panel. Because of differences in vapor pressure and temperature passing through the wall, condensation has been shown to occur close to the ventilated area and not in the structural wall itself. As a result, the ventilating effect is easily sufficient to dry out the thermal insulating material.



# Minerit HD (Raw)

Minerit HD is an uncoated fiber cement board that allows the authentic appearance of the fiber cement to stand out. In application, Minerit HD is a building board that can be installed for certain cladding purposes outlined below when a natural expression is desired. Minerit HD is an unpigmented material, and variations may occur in the individual boards and from board to board, adding a lively expression to your façade.



RAW

When using Minerit HD for cladding in a rainscreen system, the panels must be sealed, typically on all sides. They can be painted on-site with acrylic paint systems or transparent stains suitable for cement-based materials (specific instructions for painting / staining are available). After surface treatment, the board is virtually maintenance free. In industrial applications where the surface appearance of the board is of less importance, the panels do not need to be sealed but efflorescence will likely occur over time depending on the type of exposure and climate conditions.

## Technical Properties & Dimensions

Cover, Patina, Transparent & Solid				
	U.S. Trimmed sizes in. (mm)		Weight (lbs/ft <sup>2</sup> )	
Thickness	8 mm		Patina	Cover, Transparent & Solid
Width	48 (1,220)		2.5	2.9
Length	96 (2,440)	120 (3,050)		

Minerit HD							
	Trimmed sizes — in. nominal (mm)			Weight (lbs/ft <sup>2</sup> )			
Thickness	4 mm, 6 mm or 8 mm		10 mm	4 mm	6 mm	8 mm	10 mm
Width	48 (1,220)	48 (1,220)	48 (1,220)	1.6	2.3	3.1	3.9
Length	96 (2,440)	120 (3,050)	96 (2,440)				

The recommended thickness for Minerit HD in a rainscreen application is 8mm. Physical properties and dimensions are subject to nominal manufacturing tolerances.

**Color Charts: The color charts give an impression of the available colors. Reproduction of the exact color is restricted by the printing process. For an exact color match, samples are available upon request.**



# Cembrit **Patina**

Cembrit Patina has a natural, textured surface. You can see the fiber and natural characteristics of the raw materials, and you can see and feel the sanding lines on the surface. As the seasons change and the years pass, the natural aging of the fiber cement leaves subtle traces on the surface, and the façade will gradually acquire a distinctive patina.



P 020  
Granite



P 050  
Graphite



P 070  
Flint

## Grays



P 222  
Pearl

## Whites



P 313  
Tufa



P 323  
Magma



P 333  
Adobe



P 343  
Ruby

## Reds



P 545  
Sand



P 565  
Amber

## Yellows



P 626  
Emerald

## Greens



# Cembrit **Solid**

Cembrit Solid boards are the same color all the way through. Each core color is matched with a full-coverage painted surface in vibrant yet resilient colors. If you choose Cembrit Solid boards to provide a façade with a particular color, every board will feature that color on every surface and edge, and with the same color on the edges of any cut-outs or drilled holes. (Custom colors available, as pictured at left.)

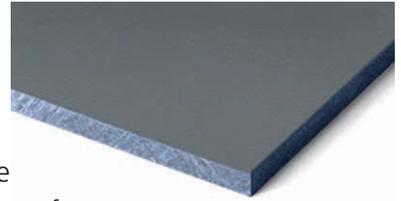


				Grays
S 030 Mercury	S 071 Orcus			
				Blacks
S 101 Pluto	S 131 Juno	S 151 Pallas	S 191 Erebus	
				Whites
S 212 Luna	S 282 Saturn			
				Reds
S 334 Jupiter	S 353 Mars			
				Yellows
S 515 Venus	S 525 Triton			
				Greens
S 606 Rhea	S 616 Ceres	S 656 Terra	S 676 Callisto	
				Blues
S 747 Neptune	S 757 Mimas			



# Cembrit **Cover**

Cembrit Cover is the ideal solution if you prefer the strongest colors and bolder design statements. The natural gray fiber-cement core is completely covered by a layer of water-based acrylic paint, with 26 standard Colors and more than 2,000 NCS® colors to choose from. (Custom colors available.)



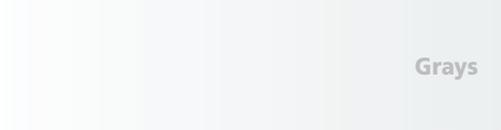
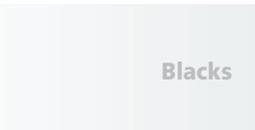
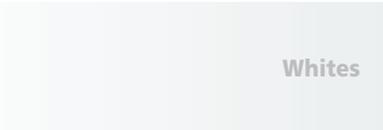
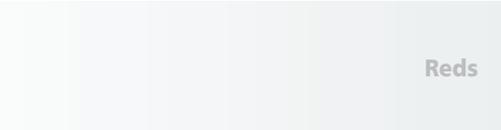
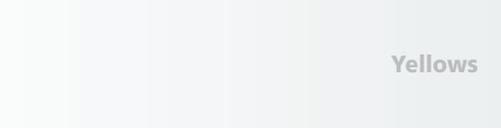
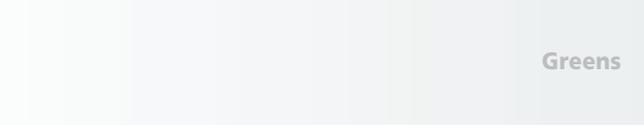
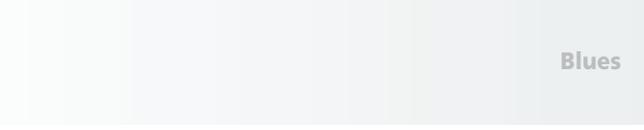
					<b>Grays</b>	
C 010 Stockholm	C 020 Vilnius	C 040 Sofia	C 050 Berlin	C 060 Helsinki		
						<b>Blacks</b>
C 160 London						
						<b>Whites</b>
C 210 Nuuk						
				<b>Reds</b>		
C 300 Milan	C 360 Copenhagen	C 380 Lyon	C 390 Istanbul			
						<b>Yellows</b>
C 450 Amsterdam	C 530 Rome	C 540 Kiev	C 550 Athens	C 560 Bonn	C 570 Barcelona	
						<b>Greens</b>
C 600 Prague	C 610 Lisbon	C 630 Geneva	C 640 Hamburg	C 650 Madrid	C 670 Dublin	
						<b>Blues</b>
C 730 Oslo	C 760 Naples	C 770 Riga				



# Cembrit **Transparent**

Cembrit Transparent façade boards combine the textured nuances and natural characteristics of the base board with a long-lasting performance of the transparent top coat. The color added to the fiber cement reveals and highlights the fibers and other raw materials that provide its strength and character. The extremely durable transparent coating then protects the board and ensures a smooth surface with a long service life.



				<b>Grays</b>	
T 020 Mediterranean	T 030 Olympus				
					<b>Blacks</b>
T 101 Arabian	T 111 Kilimanjaro	T 161 Denali	T 171 Etna		
					<b>Whites</b>
T 242 Antarctic	T 252 Blanc	T 262 Sahara			
					<b>Reds</b>
T 373 Kalahari	T 383 Vesuv				
					<b>Yellows</b>
T 505 Mojave	T 515 Gobi				
					<b>Greens</b>
T 626 Sonoran					
					<b>Blues</b>
T 737 Caribbean					

## Fiber Cement— **Distinct Properties**

**Sound and Weather Resistant** — Cembrit fiber cement boards deliver optimal sound and weather insulation. Noise as well as changing weather conditions such as freeze/thaw, heat and water pose no threat to fiber cement façades. The boards retain their shape at all times.

**Low Maintenance** — The ability of the boards to resist mold and algae attacks is equally impressive. The result is a long-lived façade that saves you time and effort on inconvenient and costly repairs and repaints.

**Non-combustible** — The boards are non-combustible, which is your guarantee for a safe building.

**Easy Handling** — Cembrit fiber cement boards are flexible and easy to handle. They can be delivered cut to size, ready for installation. All this makes for lower construction costs, shorter construction times, and lower installed costs.

## Fiber Cement— **A Unique Composition**

**Natural Ingredients** — With the strong composition of cement, mineral fillers, cellulose and non-toxic, organic fibers— and not to forget a dash of water— Cembrit fiber cement boards are made up of purely natural and environmentally friendly raw materials. This makes for sustainable and fully reusable boards.

**Strong Recipe** — The secret behind the impressive strength and durability of Cembrit fiber cement boards resides in the manufacturing technology. Thin layers of fiber cement are added on top of each other, pressed firmly together under tremendous pressure before completing a slow air curing process. Reinforced by carefully selected fibers, the many thin layers give the fiber cement cladding a strength with few peers in the world of building materials.

**Green Footprints** — A comprehensive analysis of the environmental impact of the Cembrit boards can be made from Cembrit's EPDs in accordance with EN 15804 on the Sustainability of Construction Works. The EPDs provide a Life-Cycle Assessment, manufacturing process details, and information on the use of any dangerous materials. These EPDs are available online.

## Product **Sustainability**

AFC Cladding is committed to providing the highest quality high density compressed fiber cement panels to the U.S. building markets. In order to do this, we feel it necessary to provide not only high quality products, but sustainable products that can contribute to green (LEED) building projects, which in turn benefit the environment we all live in.

AFC Cladding products currently have a potential contribution to various LEED credits including but not limited to:

### **Direct Contribution**

#### **Materials and Resources:**

- ◆ BPDO – Environmental Product Declarations

### **Indirect Contribution**

#### **Indoor Environmental Quality:**

- ◆ Thermal Comfort

#### **Energy and Atmosphere:**

- ◆ Optimize Energy Performance

One of the most important sustainable attributes is the durability of AFC Cladding panels. With their long lifespan, virtually requiring no refurbishment, AFC Cladding panels can contribute to less replacement of materials and to drastically lower maintenance costs over the useful life of the building.

The Ventilated and Insulated Rainscreen Cladding (VIRSC) system, which is used to affix AFC Cladding panels to the exterior of a structure, offers many benefits and green attributes to the performance of the building envelope. Durability and resistance to moisture and mold build-up are noteworthy benefits. Equally important is its ability to accommodate external insulation.

In addition, AFC Cladding is dedicated to further research and analysis of our products to achieve additional LEED credits, and help further the cause of building sustainable and efficient buildings.

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Warranty information available upon request.

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