Owens Corning® Thermafiber® Rainbarrier® ci High Compressive

Mineral Wool Insulation

Description:

Owens Corning® Thermafiber® RainBarrier® ci High Compressive series utilizes Owens Corning® proprietary ThermaCrimp™ technology. These boards deliver high compressive strength and provide essential structural support for exterior wall assemblies in demanding commercial applications. This series is engineered to support various cladding types — including combustible, non-combustible, and open-joint assemblies — while maintaining a continuous thermal layer that meets or exceeds energy code requirements.

Uses:

- Exterior wall applications.
- Contact Siplast for additional information on approved product uses.

Features and Benefits:

- Various Compressive Strengths — The High Compressive series is available in multiple variations to match the building's specific structural design and exterior wall material.
- Fire Safety — Non-combustible mineral wool tested to ASTM E136, providing critical fire resistance for commercial assemblies.
- Moisture Management — Engineered to repel and drain water within the wall cavity, maintaining system integrity.
- Durability — Inorganic, mold-resistant (ASTM C1338), and non-deteriorating; maintains performance over the life of the building.
- UV Resistance — Formulated to withstand ultraviolet exposure both during the construction phase and while in service.
- Thermal & Energy Efficiency — Supports high-performance thermal envelopes, ensuring energy code compliance and reduced greenhouse gas emissions.

Installation:

See Owens Corning publication "Thermafiber® RainBarrier® Continuous Insulation Guide" (Pub. No. 10021356) for more information.

Standards, Codes Compliance:

- ASTM C612, Mineral Fiber Block and Board Thermal Insulation, Types IA, IB, II, III, IVA, IVB

Certifications and Sustainable Features:

- Verified by ICC-ES to contain a minimum of 70% recycled content. See ICC-ES Evaluation Report VAR-1025 at icc-es.org*
- Environmental Product Declaration (EPD) has been certified by UL Environment. For more information, visit ul.com/epd
- Health Product Declaration (HPD)
- Recycled Content Options:*
  - EPA Choice Fiber
  - (U.S. Government Buildings) — Minimum 75%
  - Standard Fiber — 70%

Technical Data:

TESTED TO ASTM C518

Rainbarrier® ci High Compressive Variations			
	HC (80)	HC Plus (110)	HC Max (140)
Thickness	1.5" - 6"	1.25" - 4"	1" - 4"
Board Sizes†	24" x 48" and 48" x 72"		
Nominal Density	8.0 pcf	11.0 pcf	14.0 pcf
k@75° [24°C] BTU. in/hr. sq. ft. °F	0.24	0.24	0.24
R-value per inch of thickness‡	4.2	4.2	4.2
Tolerances			
Available thickness in ½" increments	+⅛" -1/16"	Width: ±⅛"	Length: ±¼"

* Recycled content options other than standard must be specified at time of order.
† Custom sizes are available upon request.
‡ R = thickness divided by k

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Product Specifications:

Property (ASTM Test)	Test Method	HC (80)	HC Plus (110)	HC Max (140)
Compressive Strength	ASTM C165	475 lbs/ft²	720 lbs/ft²	1,296 lbs/ft²
Corrosion of Steel, Aluminum, and Copper	ASTM C665	Pass	Pass	Pass
Stress Corrosion — Austenitic Stainless Steel	ASTM C795	Pass	Pass	Pass
Combustibility	ASTM E136	Non-Combustible	Non-Combustible	Non-Combustible
Water Vapor Permeance	ASTM E96	24 perm	46 perm	57 perm
Water Vapor Sorption	ASTM C1104	<0.1% by volume	<0.1% by volume	<0.1% by volume
Linear Shrinkage	ASTM C356	<2% @ 1,200F (650C)	<2% @ 1,200F (650C)	<2% @ 1,200F (650C)
Surface Burning Characteristics	ASTM E84	Flame Spread – 0 Smoke Developed – 0	Flame Spread – 0 Smoke Developed – 0	Flame Spread – 0 Smoke Developed – 0
Fungi-Resistance	ASTM C1338	Complies	Complies	Complies
Odor	ASTM C1304	Complies	Complies	Complies
Chemical analysis for Cl, Fl, Na+, SiO4	ASTM C871 ASTM C795	Results fall within acceptability limits of ASTM C795	Results fall within acceptability limits of ASTM C795	Results fall within acceptability limits of ASTM C795

Acoustical Performance:

	Product	Thickness	125 HZ	250 HZ	500 HZ	1000 HZ	2000 HZ	4000 HZ	NRC
ASTM C423	**ci High Compressive (80)**	2"	0.22	0.90	1.05	1.06	1.02	1.04	1.00
	ci High Compressive Plus (110)	1.25"	0.11	0.52	0.99	1.01	1.01	1.00	0.90
		2"	0.27	0.89	0.95	1.04	1.00	1.00	0.95
		4"	0.57	0.79	0.95	0.99	0.99	0.99	0.95
	ci High Compressive Max (140)	1"	0.10	0.41	0.86	0.97	0.96	0.96	0.80
		2"	0.33	0.79	0.77	0.93	0.93	0.94	0.85
		4"	0.44	0.69	0.89	0.90	0.93	0.95	0.85

For More Information: https://www.owenscorning.com/en-us/insulation/products/rainbarrier-high-compress