

Submittal Form

All Greenfiber Products

greenfiber®

WALL & ATTIC APPLICATIONS

Submitted To: _____

Submitted By: _____

Job Reference: _____

Job Name: _____

Greenfiber Product Attributes

Fire Safety

All Greenfiber Products meet CPSC Flame Spread ($\geq 0.12 \text{ Wcm}^2$) and Smolder Combustion ($<15\%$ weight loss) requirements. The products are Class A fire blocking material with ASTM E 84 Smoke Development of <35 in cavities. All products also have ASTM E-84 Flame Spread of <25 . Simulated building test have shown that structures insulated with cellulose insulation can stand up to 60% longer in the event of a fire compared to structures insulated with fiberglass batts¹. Greenfiber has a number of proprietary Underwriters Laboratories Fire-Resistance Rated assemblies using various products.

Environmental Attributes

Beyond the energy efficiency achieved with installing recommended R values in buildings, it is just as important to consider the overall impact of the materials used to get those R values. From manufacturing to installed use, Greenfiber cellulose has one of the lowest energy consumptions per board foot compared to other insulation products. Our manufacturing process is very low energy compared to glass and mineral fiber insulations, with near zero waste. Additionally, the high portion of recycled raw materials we use to make our product, keeps approximately 160K tons or 14M cu. ft. of material out of landfills every year².

Greenfiber cellulose contributes to energy efficient buildings limiting carbon emissions from manufacturing and as research shows, can lower the carbon footprint of a building acting as a “carbon sink” sequestering carbon for its lifetime³.

Declare Compliant

All Greenfiber® products are Declare compliant. Declare is a transparency platform that is changing the materials marketplace. It answers the following questions about a product: Where does a product come from? What is it made of? Where does it go at the end of its life?

Declare has been approved as a compliance pathway for the LEED v4 Building Product Disclosure and Optimization Credit, Option. The LEED v4 credit calls for the chemical inventory of a product to at least 1000ppm; Declare labels that achieve a declaration status of “Red List Free” or “Declared” fulfill the credit disclosure requirements.

Additionally, any fully disclosed “LBC Compliant” label and any “LBC Compliant” label using the I10-E4 Proprietary Ingredients Exception, with a minimum disclosure threshold of 99.9%, meets the LEED v4 Building Product Disclosure and Optimization Credit, Option reporting requirements.

Declare. 

Declare certifies that Greenfiber will maintain a minimum of 85% recycled content.

To learn more about the long list of Environmental attributes of all these products, please visit Greenfiber's website at www.greenfiber.com/homeowners/what-is-cellulose.

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Better Sound Control

Greenfiber Insulation is two to three times denser than other insulation products and it fills gaps and voids in areas where it is applied. These characteristics help protect your home from unwanted noise.

Underwriters Laboratories Classification

All Greenfiber products are UL Classified and carry the Classification mark with the relevant properties and other information on the bags. This is true for both the United States and Canada. See a complete listing of UL assemblies at <https://www.greenfiber.com/builders-architect>



Test Requirements

Greenfiber insulation meets all test requirements of ASTM C739-08 (US), CAN/ULC-S703-09 in Canada, CPSC 16 CFR 1209, 400, FTC 16 CFR 460, 1404, and all FHA, VA HUD and building code requirements. Tests include but are not limited to:

- Corrosiveness
- Fungi Resistance
- Surface Burning Characteristics
- Critical Radiant Flux
- Moisture Vapor Sorption
- Thermal Resistance
- Design Density
- Odor Emission
- Open Flammability
- Separation of Chemicals
- Permanency
- Smoldering Combustion

United States

Product Type	Product Code	Description	R-Value	Minimum Thickness (Inches)		Applicable Standards/ Specifications
				Installed	Settled	
All-In-1 All Borate Loose-Fill and Spray Applied Insulation	SANCTUARY	Designed for new construction and retrofit. Spray applied wall applications, stabilized attic, loose fill attic and any dry dense-pack applications. Made of 85% recycled paper fibers treated for fire resistance.	R-19	5.7	5.3	Federal Regulation 16 CFR 1209, 16 CFR 1404, 16 CFR 460. ASTM C- 739, ASTM E-84, Flame Spread Index ≤5, Smoke Developed Index ≤35. UL ER15890-01 Report
			R-30	8.9	8.3	
			R-38	11.2	10.4	
			R-49	14.3	13.3	
			R-60	17.3	16.1	
All Borate Loose-Fill Formula	INS765LD	Designed for new construction or retrofit loose-fill attic and wall applications. Made with up to 85% recycled paper fibers treated for fire resistance.	R-19	5.86	5.27	Federal Regulation 16 CFR 1209, 16 CFR 1404, 16 CFR 460. ASTM C- 739, ASTM E-84, Flame Spread Index ≤5, Smoke Developed Index ≤35. UL ER15890-01 Report
			R-30	9.19	8.27	
			R-38	11.57	10.41	
			R-49	14.78	13.30	
Loose-Fill Formula	INS515LD	Designed for new construction or retrofit loose-fill attic and wall applications. Made with up to 85% recycled paper fibers treated for fire resistance.	R-19	5.88	5.29	Federal Regulation 16 CFR 1209, 16 CFR 1404, 16 CFR 460. ASTM C- 739, ASTM E-84, Flame Spread Index ≤5, Smoke Developed Index ≤35. UL ER15890-01 Report
			R-30	9.22	8.30	
			R-38	11.60	10.44	
			R-49	14.82	13.34	
			R-60	18.00	16.20	
Blow-In Fiber Insulation	INS541LD	Designed for loose- fill attic and wall applications. Made with up to 85% recycled paper fibers treated for fire resistance.	R-19	6.19	5.57	Federal Regulation 16 CFR 1209, 16 CFR 1404, 16 CFR 460. ASTM C- 739, ASTM E-84, Flame Spread Index ≤5, Smoke Developed Index ≤35. UL ER15890-01 Report
			R-30	9.57	8.62	
			R-38	11.97	10.77	
			R-49	15.20	13.68	
			R-60	18.4	16.5	

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WALL & ATTIC APPLICATIONS

United States - Spray Applied

Application	Product Code	R-Value	Wall Framing	Minimum Thickness	Applicable Standards/ Specifications
Spray Applied	SANCTUARY	R-13	(2x4)	3.50	Federal Regulation 16 CFR 1209, 16 CFR 1404, 16 CFR 460. ASTM C- 739, ASTM E-84, Flame Spread Index ≤5, Smoke Developed Index ≤35. UL ER15890-01 Report
		R-21	(2x6)	5.50	

United States - Dry Dense Pack

Application	Product Code	R-Value	Wall Framing	Minimum Thickness	Applicable Standards/ Specifications
Dry Dense Pack	SANCTUARY	R-13	(2x4)	3.50	Federal Regulation 16 CFR 1209, 16 CFR 1404, 16 CFR 460. ASTM C- 739, ASTM E-84, Flame Spread Index ≤5, Smoke Developed Index ≤35. UL ER15890-01 Report
		R-21	(2x6)	5.50	
		R-28	(2x8)	7.50	

Canada

Product Type	Product Code	Description	R-Value	Minimum Thickness (Inches)		Applicable Standards/ Specifications
				Installed	Settled	
Stabilized Formula Type 2 Open	INS500-CAN	Designed for new construction or retrofit loose fill attic and wall applications. Made with up to 85% recycled paper fibers treated for fire resistance.	R-5.6	9.37	8.71	CAN/ULC-S703-09 CAN/ULC-S102.2
			R-7.0	11.71	10.9	
			R-7.7	12.88	12.0	
			R-8.8	14.74	13.7	
			R-10.6	17.73	16.5	
Loose-Fill Insulation Type 1 Open Type 1 Closed	INS552LD-CAN	Designed for new construction or retrofit loose fill attic and wall applications. Made with up to 85% recycled paper fibers treated for fire resistance.	R-5.6	9.76	8.71	CAN/ULC-S703-09 CAN/ULC-S102.2
			R-7.0	12.20	10.89	
			R-8.81	15.35	13.70	
			R-10.6	18.47	16.49	
Loose-Fill Formula Type 1 Open Type 1 Closed	INS550LD-CAN	Designed for loose-fill attic and wall applications. Made with up to 85% recycled paper fibers treated for fire resistance.	R-5.6	9.69	8.6	CAN/ULC-S703-09 CAN/ULC-S102.2
			R-7.0	12.11	10.8	
			R-7.7	13.32	11.9	
			R-8.8	15.14	13.5	
			R-10.6	18.16	16.2	

Definitions:

"Stabilized" in the document refers to blown-in-products that require water to activate an adhesive, for either Stabilized attic or Spray Applied application.
 "Loose-fill" in the document refers to blown-in-products that do not require water for application, for either loose fill attic or Dry Dense-Pack application.

¹ As demonstrated by The Large Scale Outdoor Fire Test Program comparing the fire performance of three structures:

- (1) an uninsulated structure;
- (2) a structure insulated with R-13 fiberglass batts (wall cavities) and blown-in, loose fill insulation (attic floor); and
- (3) a structure insulated with Greenfiber's cellulose insulation using spray applied cellulose insulation (wall cavities) and blown-in, loose-fill cellulose insulation (attic floor) - Prepared by Steven Winter Associates Inc.

² Estimates based on our raw material usage, <https://www.usi.edu/recycle/paper-recycling-facts/>

³ https://www.cellulose.org/Cellulose-Insulation-2nd.php?pagename=low_embodied_energy_insulation&dirname=CIMA, <https://www.transparencycatalog.com/company/cima-cimac>