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Translucent Building Systems

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PRODUCT INFORMATION	**TYPE OF PRODUCT**	High Performance Translucent Building Systems
	COMPANY NAME	Kalwall
	PRODUCT/COLLECTION NAME	Kalwall Panel + System Technologies
	DESCRIPTION	Building panels, either curved or flat, that extract and convert free energy from the sun to heat, cool, naturally light, and drastically "electrify" buildings. Provides predictable, beautiful, glare-free daylight that blocks harmful UV-A and UV-B rays while transmitting the full spectrum of visible light for perfect color rendition within interiors. Used for Wall Systems, Curtain Walls, Window Systems, Window Replacements, Skylights, Clearspan Skylights/Skyroofs, Walkways/Canopies, and Complete Structures. Although Kalwall blocks UV-A and UV-B wavelengths, it allows for photosynthesis to occur in plants, promoting plant growth. Will not melt, can handle extreme environments with ease, shatterproof, blocks line of sight for privacy, resistant to graffiti/vandalism, strong and lightweight, increases human comfort, and self-cleaning.
MATERIAL FEEDSTOCK	**MATERIAL CONTENT**	Formed by permanently bonding two specially formulated translucent Fiberglass Reinforced Polymer (FRP) Faces to a Grid Core constructed of interlocking aluminum or thermally-broken composite I-beams.
	RECYCLED CONTENT %	Aluminum
	RAPIDLY RENEWABLE CONTENT %	N/A
	HARMFUL ADDITIVES	Fiberglass
	HARMFUL EMISSIONS	Some emissions from fiberglass
	EMISSION STRENGTH OVER TIME	None
	TREATMENTS	None
MANUFACTURING	**MANUFACTURING PROCESS**	Provide sandwich panels of flat fiberglass reinforced translucent face sheets laminated to a grid core of mechanically interlocking I-beams. The adhesive bonding line shall be straight, cover the entire width of the I-beam and have a neat, sharp edge. Standard panels shall deflect no more than 1.9" at 30 PSF in 10' 0" span without a supporting frame by ASTM E 72. Standard panels shall withstand 1200° F fire for minimum one hour without collapse or exterior flaming. Thermally broken panels: Minimum Condensation Resistance Factor of 80 by AAMA 1503 measured on the bond line.
	HARMFUL EMISSIONS	None
	LOCATION OF MANUF. PLANT	Manchester, NH
	TESTS/CODES	-Class A Burning Brand Test (ASTM E-108) -UL Listings for Class A Roof Systems and FRP Faces -ETA-07/0244 Wall Systems -UFC 4-010-01 DoD Anti-Terrorism Force Protection (ATFO) -FM Explosion Venting Walls Standard 4440 -FM Wall and Roof Systems Standard 4881 and 4471 -Hurricane-Resistant Systems -NFRC Certified Products Listing -Criteria for Sandwich Panels issued by the ICC (International Code Council) ES-AC177
	3RD PARTY CERTIFICATION	USGBC, NFRC, FM Approved, UL listings, GreenSpec Listed, Cabot
INSTALLATION	**INSTALLATION PROCEDURE**	Install the panel system in accordance with the manufacturer's suggested installation recommendations and approved shop drawings.

		Anchor component parts securely in place by permanent mechanical attachment system. Accommodate thermal and mechanical movements. Set perimeter framing in a full bed of sealant compound, or with joint fillers or gaskets to provide weather-tight construction. Install joint sealants at perimeter joints and within the panel system in accordance with manufacturer's installation instructions.
	INSTALLATION ADHESIVES	Heat and pressure resin type adhesive engineered for structural sandwich panel use, with minimum 25-years field use. Adhesive shall pass testing requirements specified by the International Code Council "Acceptance Criteria for Sandwich Panel Adhesives". Minimum tensile strength of 750 PSI when the panel assembly is tested by ASTM C 297 after two exposures to six cycles each of the aging conditions prescribed by ASTM D 1037. Minimum shear strength of the panel adhesive by ASTM D 1002 after exposure to four separate conditions: 50% Relative Humidity at 68° F: 540 PSI 182° F: 100 PSI Accelerated Aging by ASTM D 1037 at room temperature: 800 PSI Accelerated Aging by ASTM D 1037 at 182° F: 250 PSI
	UNIT COST	Varies
	LIFE CYCLE ANALYSIS EXTRACTION	Reduces maintenance and energy costs. Low initial financial cost.
	END OF SERVICE LIFE	Recyclable, kalwall claims 0 landfill manufacturing
MISC. PROPERTIES	**QUALITIES/PROPERTIES OF PRODUCT**	**Fire Performance:** can withstand a 1200°F flame for one hour with no flame penetration. **Windborne Debris Protection:** can handle the most extreme environments with ease. **Blast Protection:** shatterproof, meeting Anti-Terrorism Force Protection (ATFP). **Safety + Security:** blocks line of sight for visual privacy and is resistant to vandalism/graffiti.
	MISC. COMMENTS	Deliver panel system, components and materials in manufacturer's standard protective packaging.
	CONTRIBUTION TO LEED POINTS	**Sustainable Sites:** Heat Island Effect **Energy & Atmosphere:** Minimum Energy Performance, Optimize Energy Performance, Renewable Energy Protection **Indoor Environmental Quality:** Thermal Comfort, Daylight, Quality Views
COMPANY PROFILE	**GREEN PHILOSOPHY**	Kalwall, a producer of sustainable fenestration systems since long before the "green" philosophy became popular, is a world leader in daylighting technology, energy conservation, and participation in LEED®-certified buildings.
	CONTACT	Call 800-258-9777 (N. America) FAX 603-627-7905 KALWALL 1111 Candia Road PO Box 237 Manchester, NH 03105 Phone: 603-627-3861 Email: info@kalwall.com
MAINTENANCE	**AFTER INSTALLATION**	The cost savings of Kalwall go far beyond installation costs and energy savings. Kalwall is virtually maintenance-free. No more scraping or painting window sashes or trim. Unlike glass, natural rainfall is all that's needed to keep the surface clean and streak-free. Kalwall is also shatterproof and highly vandal-resistant. The exclusive glass veil erosion preventer overcomes periodic maintenance. Graffiti is easily removed.