



TRANSLUCENT
AEROGEL

THE WORLD'S MOST POWERFUL
DAYLIGHTING SYSTEM





Roosevelt Elementary School, Elkhart, IN
Architect: Fanning/Howey Associates, Inc.; Photo: Bill Lempke

KALWALL®+ NANOGEL® PROVIDES SUPERIOR INSULATION and MUSEUM-QUALITY DAYLIGHT TRANSMISSION

Diffused natural daylight changes the ambience of interiors and has been proven to have a positive influence on personal well being, working and learning.

Kalwall is a unique translucent wall cladding and roofing system for diffusing sunlight and transmitting it internally as Museum-quality Daylighting™, without shadows, glare or hotspots and without the need for external solar control or internal blinds and curtains.

Kalwall+ Nanogel enables architects and designers to achieve insulating values that are equivalent to a solid wall while using large areas of translucent cladding or roofing.

Kalwall+ Nanogel achieves a thermal insulation value of $U = 0.05 \text{ Btu/hr/ft}^2/\text{°F}$, or $0.3 \text{ W/m}^2\text{K}$. This is equivalent to a solid wall and four times greater than insulating glass units.

The benefits of using Nanogel aerogel within Kalwall systems include:

- Diffuse Museum-quality Daylighting™
- Eliminate harsh lighting contrasts
- Increase thermal insulation
- Improve sound insulation
- Minimize solar heat gain
- Reduce energy costs for air conditioning, heating and artificial lighting
- Resist condensation to prohibit growth of mold and mildew
- Gain LEED® points



Yale University, New Haven, CT
Architect: Kieran Timberlake Associates, LLC

Technical Characteristics

Kalwall+ Nanogel is the most highly insulating, diffuse-light-transmitting system available. Translucent structural composite sandwich panels are formed by permanently bonding specially formulated fiberglass-reinforced translucent faces to a grid core constructed of interlocked, structural aluminum composite I-beams. When filled with Nanogel, Kalwall panels combine exceptionally high insulation with effective light diffusion.

Kalwall panels are factory prefabricated and customized to fit the exact size and configuration required for each individual project. Opening or fixed glazed windows can be incorporated into the panels. Kalwall's Clamp-tite™ aluminum closure systems for installation complete the kit.



Department of Military Affairs
State of Wisconsin

Kalwall+ Nanogel panel dimensions (maximum):

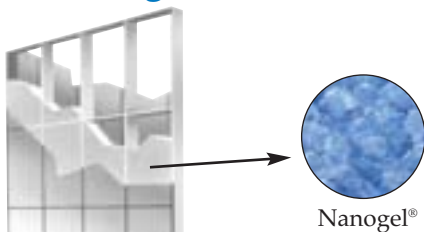
- 4 feet x 12 feet x 2¾ inches
(1.2 m x 3.6 m x 70 mm)
- 5 feet x 10 feet x 2¾ inches
(1.5 m x 3.0 m x 70 mm)

Kalwall+ Nanogel Thermal Insulation* and Light Transmission* of 2¾ inch (70 mm)-thick panels:

- R-value: 20
 $U = 0.05 \text{ Btu/hr/ft}^2/\text{°F}$,
or $0.3 \text{ W/m}^2\text{K}$
- Light transmission: from 12% to 20%
- Solar Heat Gain Coefficient: from 0.12 to 0.22
- Acoustic Insulation: 35 STC

* Due to ongoing product development, subject to change without notice.

R-20 insulation with up to 20% light transmission!



Panel $U = 0.05$ (NFRC 100)

Contact us for Certified System
U-values for Walls and Skylights.

Cover photos:

Roosevelt Elementary School, Elkhart, IN; Architect: Fanning/Howey Associates, Inc.; Photo: Bill Lempke
Highcrest Community School, High Wycombe, Buckinghamshire, UK; Architect: Jacobs

Nanogel® aerogel, the world's lightest and best insulating, solid material, is helping architects and building owners to enhance day-lighting designs and meet new, stricter energy and building code requirements.

- **Increases light diffusion...**
eliminates glare, allows soft, even, deep light dispersion
- **Improves acoustic performance...**
minimizes unwanted noise
- **Reduces energy consumption...**
exceptional thermal performance delivers a North American R-value equal to R-8 per inch and a European U-value equal to 0.7 per 25 mm thickness
- **UV stable...**
maintains performance over time
- **Resists moisture...**
prohibits growth of mold, mildew and fungus.
- **Noncombustible...**



U.S. Post Office, Prairieville, LA
Architect/Engineer: Wharry Engineering



Roosevelt Elementary School, Elkhart, IN
Architect: Fanning/Howey Associates, Inc.



Bozeman Public Library, Bozeman, MT
Architect: Overland Partners & StudioFORMA
Photo: George Baskin



Hemsworth Managed Offices
Hemsworth, Yorkshire, UK
Architect: Atkins Architects; Photo: David Jewel

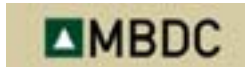


Utah Valley State College, Science Building
Orem, UT



Eielson AFB, Alaska; Baker Field House Fitness & Sports Center
Architect: USKH, Inc.; Photo: ©Ken Graham Photography .com

From McDonough Braungart Design Chemistry



"Nanogel is an excellent technical nutrient which provides an elegant solution to the problem of thermal and sound insulation. The finished product is consistent with our MBDC 'Cradle to Cradle' Design philosophy."

For more information about Nanogel
visit www.nanogel.com.



J.F. Ahern Company, Fond du Lac, WI
Architect: P.T.D. Architects; Photo: Bob Freund



U.S. Joint Maritime Operations and Training
Facilities, Camp Lejeune, NC
Architect: Studio South Architects, PLLC



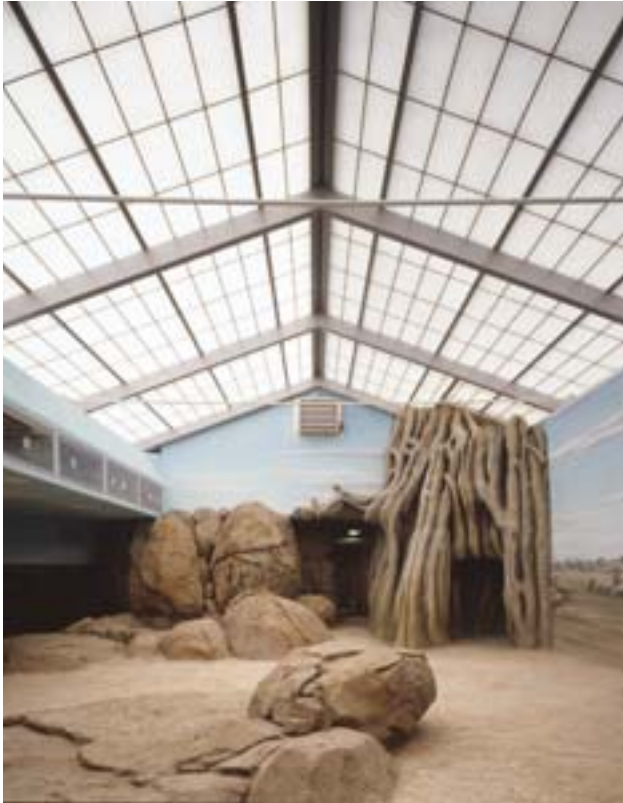
Kilgore Architectural Products, Inc.
Spokane, WA



Daylighting Analysis

Kalwall will assist in selecting appropriate light transmission using a proprietary daylight modeling service.

Visit www.daylightmodeling.com.



Milwaukee County Zoo
Florence Mila Borchert Big Cat Country, Milwaukee, WI
Photo: Bill Lempke



Residence, Sandpoint, ID
Architect: Jon Saylor; Photo: Advance Image



Roosevelt Elementary School, Elkhart, IN
Architect: Fanning/Howey Associates, Inc.
Photo: Bill Lempke



Bearwood Road Apartments, Smethwick, Birmingham, UK
Architect: BM3 Architecture



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For more information:

www.kalwall.com
www.skylightinfo.com
www.stokes.co.uk

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Kalwall[®]

Kalwall Corporation, PO Box 237, Manchester, NH 03105
603-627-3861 800-258-9777 (N. America)

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Jersey General Hospital, St. Helier, Channel Islands
Architect: Bowen Dann Knox Architects