

Since 1955
Kalwall+

with... **Lumira**
aerogel

Dental Surgery Garatea, Pamplona, Spain; Architect: Lana & Vidaurre Studio



**= THE WORLD'S
MOST POWERFUL
BUILDING TECHNOLOGY.**

Museum-quality daylighting™ with super insulation.

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

Pearse Street Primary Care Centre, Dublin, Ireland;
A & D Wejchert Partners Architects; PM Photography



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Kalwall continues to lead the world in the technology of high-efficiency daylighting with the latest evolution of panels infilled with aerogel. Kalwall+ Lumira™ combines all the daylighting benefits of Kalwall with super-insulating aerogel that delivers an “R” value of 20; $U = 0.05 \text{ Btu/hr/ft}^2/\text{°F}$ or $0.3 \text{ W/m}^2\text{K}$. The insulation value of this light-transmitting system is far greater than insulating glass units and is equivalent to a solid wall, achieving a Sound Transmission Class (STC) of 35.

Formerly known as Kalwall+ Nanogel®, the heart of Kalwall’s aerogel-filled panels is the world’s lightest and best insulating, translucent, solid material. Based on translucent silica and sometimes called “frozen smoke”, this is a hydrophobic aerogel produced in the form of glass bead-like particles that are greater than 90% air. The pore size of each particle is less than the mean free path of air molecules, which severely inhibits heat transfer through the material.

Fenestrations specified as Kalwall+ Lumira aerogel create the ultimate energy-saving translucent wall, window replacement, and skylight systems with cost and energy benefits unrivaled by any other technology or building system. Architects and energy-conscious designers around the world are specifying Kalwall+ Lumira to ensure the full spectrum of natural daylight while achieving superior energy performance. It is now possible to meet or exceed increasingly stringent building codes and standards such as ASHRAE 90.1 and sustainable building criteria from LEED® and BREEAM®.

2¾" (70mm) thick Kalwall+ Lumira systems are factory prefabricated and customized to fit the exact size and configuration of each application, including fixed or operable glazed windows for vision in unitized curtainwall.

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

Benefits of Kalwall+ Lumira aerogel:

Kalwall+ Lumira aerogel = The most highly insulating, diffused-light-transmitting system.

- Astounding thermal insulation
- Diffused transmission of natural daylight
- Full-spectrum, visible light
- Improved sound insulation
- Reduced HVAC energy costs
- Control of solar gain
- Reduced glare and harsh lighting contrasts
- Lightweight and strong
- LEED® points
- NFRC Systems Certified



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



Crocker Art Museum, Sacramento, CA;
Architect: Gwathmey Siegel & Assoc.;
Bruce Damonte Photography

Potter League for Animals, Middletown, RI; ARO Architects;
Photo ©Hennessy Productions 2009





Residence, United Kingdom

Kalwall+ Lumira panels available for most of Kalwall's 8 Building Systems, including this huge Clearspan™ Skylight by Kalwall strategic partner Structures Unlimited, Inc.



Daylighting Analysis
Kalwall will assist in selecting appropriate light transmission as well as a host of design support with a highly advanced proprietary daylight modeling service.
www.daylightmodeling.com

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