

Project Report

Benenden Hospital

Cranbrook, Kent, UK



Architecture: CA Vaughan Blundell + SR Architects Ltd

Photography: Alex Upton

KALWALL®

high performance translucent building systems

KALWALL SPECIFICATION:

Panel: 2.75" | 70 mm

Grid core: shoji

Exterior FRP: white

Interior FRP: white

System finish: bronze #85

U-Value: .23 | 1.31 Wm²K

Solar Heat Gain Coefficient: 0.23

Visible Light Transmission: 15%

WHAT IS KALWALL?

A translucent, structural sandwich panel that provides:

Glare-free, balanced daylighting

Superior thermal performance

Energy + electricity saving

Low maintenance life cycle requirements

Safety + security through visual privacy

Durability + graffiti / vandal-resistance

Hurricane, explosion venting + blast rated options



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For unparalleled thermal performance in translucent daylighting, consider specifying Kalwall with **CABOT's Lumira®** aerogel insulation. Available in 2.75" (70 mm) panel formats up to: 4' x 12' (1200 mm x 3600 mm) and 5' x 10' (1500 mm x 3000 mm) maximum.

Benenden Hospital, Cranbrook, Kent, UK

HEALING DAYLIGHT

When building for people, especially in healthcare, architects continually explore ways to introduce as much natural daylight as possible. The benefit of natural daylight for patients and staff is well documented.

That's what makes the recent renovation of Benenden Hospital in Kent, UK so impressive.

Benenden, an independent hospital located in southeast England, considers itself a special place and "precisely what a hospital should be: progressively modern, unquestionably clean and genuinely caring." That message is delivered the moment a patient walks into the main entrance through the wonderfully light and airy atrium.

A series of breathtaking skylights featuring Kalwall® translucent sandwich panels are the architectural focus of a \$76 million (£55 million) renovation project. Designed by architects CA Vaughan Blundell with assistance from SR Architects Ltd, the new and renovated spaces create an enhanced patient and visitor experience with maximized natural daylight.

The atrium and lounge areas bring in natural daylight through the use of skylights, helping the architects achieve the clean, modern and caring feeling Benenden sought. The design allows for the Kalwall skylights to not only provide natural, glare-free daylight to the areas they are directly over, but to also create ambient lighting in adjoining areas. The result is a more stimulating and healthy environment.

Kalwall was specified in order to help the project attain a BREEAM status of 'Good'. The heavily insulated composition of the panels eliminates glare and hotspots to reduce the load on temperature control systems and the need for artificial lighting.

This is particularly impressive given the amount of curtain walling and clerestory glazing involved in the design. Meeting the UK's Climate Change Act of 2008, a commitment to reducing greenhouse gas emissions, was also imperative.

"The use of Kalwall represented the best value balance of energy saving and cost, and provided us with the ideal way to achieve spatial daylighting within the requirements of Part L (of the UK Building Regulations 2010)," says Geoff Holden, Senior Technician at CA Vaughan Blundell.

Kalwall's durability and low maintenance were other appealing factors.

Hospital Director Jane Abbott said the renovations offer "our patients outstanding facilities to give them a first-class experience in all stages of their journey through the Hospital."

That experience starts when they walk into the atrium.



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