

KALWALL®

high performance translucent building systems

Project Report

The Design Prototyping & Testing Center (DPTC), University of Sheffield U.K.

Rotherham, United Kingdom



Architecture: Bond Bryan Architects

Photography: David Jewell Photography©

Wall Systems | Skyroof™ + Skylight Systems | Canopies + Walkways | Hurricane-Rated E-Series™ Windows

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high performance translucent building systems

KALWALL SPECIFICATION:

Panel: 2.75" | 70 mm

Grid core: reverse shoji

Exterior FRP: crystal

Interior FRP: white

System finish: gray #80

U-Value: .23 | 1.25 Wm²K

Solar Heat Gain Coefficient: 0.28

Visible Light Transmission: 20%

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.

DPTC

Housed within a 100-acre campus of sharply designed buildings, the Advanced Manufacturing Park in Rotherham, England is home to cutting edge technology in the manufacturing world while reflecting the spirit of innovation. Even there, the Design Prototyping and Testing Centre (DPTC) that features Kalwall translucent wall systems stands out.

The two-story building that is part of the University of Sheffield's Advanced Manufacturing Research Centre is a testament to function, style and efficiency.

The function in the design is the mezzanine level, encased with Kalwall panels, allowing instructors and researchers to view the large workshops below, creating an intimate relationship between the levels.

The style is in the form of the building's exterior, a design by Bond Bryan Architects that glows at night, and features Kalwall to engulf the facility in naturally diffuse daylight, which eliminates glare and shadows.

The efficiency also relies on the highly-insulated Kalwall system, which is rugged and has superior thermal properties and best in industry solar heat gain control. That factored into the DPTC earning the BREEAM (Building Research Establishment Environmental Assessment Method) Excellent rating for sustainable building design, construction and operation.

The project was a collaboration with Structura UK Ltd, the exclusive distributor for Kalwall systems in England, Wales and Northern Ireland.

The influence of Kalwall panels is evident throughout the Advanced Manufacturing Park, which includes three other facilities that feature Kalwall diffuse natural daylighting systems.



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