

STRUCTURA UK

PROTECTION & SECURITY



Why is Kalwall regularly specified in RAF bases, military installations, airports, police stations, data centres and infrastructure projects worldwide?

It offers unique advantages in terms of safety, security, line-of-sight protection, durability and longevity.

It is ideal for security sensitive projects not only because it is FM (Factory Mutual) approved but also, due to its unique shatterproof characteristic, any blast is mitigated and, unlike glass, splintering and serious injury to the public are greatly reduced. In addition, Kalwall offers complete line-of-sight protection, maintaining privacy for building occupants while bathing the interior with diffused daylighting, regardless of the weather.

MILITARY BASES:



RAF Marham, Suffolk

Apart from providing visual protection, its inherent strength and heavy duty impact resistance also make it ideal for secure locations. This means that access through walls or rooflights can be denied while fire and most chemicals will not affect the surface.

In the USA, Kalwall is accepted as one of the core materials for the construction of secure locations. It can be configured to exceed Large Missile D hurricane compliance for wind-borne debris protection making it suitable for facilities needing enhanced protection or serving critical national defense functions. It can even be manufactured for blast resistance and is compliant with ASIAD, DoD, GSA anti-terrorism, ATFP and UFC military guidelines.

SENSITIVE AREAS:



Equinix Data Centre, Slough



Camp Withycombe, Oregon (Photo: Christian Columbres)



High Security Duty-free storage unit at Luxembourg international airport

AIRPORTS

Airports are seen as high-value, high-impact targets with symbolic importance and news-grabbing headlines. More than ever before, transport security in general and airport security in particular have become an important part of Government's long-term counter-terrorist programme.

Airport operators do all they can to mitigate threats it is all but impossible to make any building totally secure. Apart from the initial blast itself, flying debris can cause huge amounts of additional damage to people and property. A report by the New York Times in 2008 reported that the bomb which exploded at LaGuardia "shattered plate glass windows 30 feet high, spraying glass shards like shrapnel, and hurled metal from shattered baggage carousels and coin-operated lockers."

GLASGOW INTERNATIONAL AIRPORT

Skyhub is the major extension to Glasgow international airport. Designed by airport terminal architects 3dReid, it features natural daylighting diffused through 675sqm of Kalwall which runs 73m across the dramatic facade. The translucent daylighting system was purposely chosen not only for its aesthetics and physical performance but also for its unique contribution to security which was of paramount concern following the 2007 terrorist ramming attack.

GATWICK AIRPORT

Good lighting is always essential but sometimes a well-lit interior also needs to be discreet when viewed from outside. This is the case with the very long Pier 1 which runs alongside the baggage system and gates at Gatwick Airport's South Terminal Building. The two stringent requirements of privacy and security have been neatly solved using Kalwall®, with the added benefit of enhancing the long walkway by creating a pleasant interior ambience.

RALEIGH-DURHAM AIRPORT, NORTH CAROLINA

Architects Clark Nexsen have recently completed a £50 million transformation of the airport's Terminal 1 originally constructed using blue corrugated metal making it dark and uninviting while the inside was haphazard with a poor passenger flow.

The new terminal has emerged with a complete redesign with everything from the kerbside to the interior space. On land-side arrival, a Kalwall canopy system provides shelter and links access points while a Kalwall translucent façade is utilised to clad the main terminal building.

Its unique ability to diffuse natural daylight into the interior also means the new TSA screening facility now has complete privacy for the sensitive areas while bathing the interior with natural, glare-free light making it more 'friendly'.



Kennedy Space Center, VAB, Florida



Glasgow Airport



Gatwick Airport



South Bend Regional Airport, Indiana, USA

WHAT IS KALWALL?

Kalwall, developed and manufactured in the USA for over 60 years, is a highly insulating, diffuse light transmitting building panel system for walls and roofs and can be used for daylighting spaces from small units to large areas of up to 30 metres. The primary component is a translucent structural composite sandwich panel formed by permanently bonding specially formulated fibreglass sheets to a grid core constructed of interlocking thermally broken extruded aluminium 'I-beams'.

Panels are factory prefabricated to the exact size and configuration for each project. Panels can be flat or curved while opening or fixed glazed window units can be incorporated using the integral Clamp-tite™ installation system.

Kalwall's unique composition combines to reduce solar gain while at the same time maximising thermal insulation. Kalwall diffuses light so efficiently that even direct sunlight is converted into even illumination with reduced glare.

Kalwall is able to transmit large amounts of usable daylight into a space with relatively low levels of light transmission. Panels can be selected to transmit various percentages of light according to individual project requirements. Kalwall has been tested according to the procedures of EN13830:2003 – Curtain Walling Product Standard for CE Marking.

STRUCTURA & KALWALL

Structura UK is the leading supplier, fabricator and installer of glass curtain walling, rainscreens, glass atria, windows and other architectural glass building products.

The company is also the exclusive distributor for Kalwall translucent daylight building systems in England, Wales and Northern Ireland.



WHO ARE STRUCTURA?

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For over 35 years we've specialised in the delivery of commercial glazing renovation projects throughout the UK and Ireland. In partnership with leading European curtain wall system manufacturers and glass producers, we undertake bespoke, ambitious and out-of-the-ordinary projects, drawing on our collective experience to solve problems before they arise.

Our Founding Directors remain influential in our day-to-day business, representing an important constant from our initial start-up days to the present. Today, we are a team of over 100 members from more than 15 nationalities, working from multiple locations (and remotely, in light of our new, progressive hybrid working practices).

Through our own exacting standards of excellence and accreditation, we've been trusted with the refurbishment of some of the highest profile landmarks in the UK including Grade II listed properties such as The Post Office and Devonshire Square in London, Eastbourne's Congress Theatre and more recently, Sir Nicholas Grimshaw's Herman Miller Factory in Bath.

Our family values remain at the heart of what makes us tick – ensuring we act with integrity and sincerity in every project we put our names to. In short, we're every bit as invested in the success of our work as you.

CONTACT:

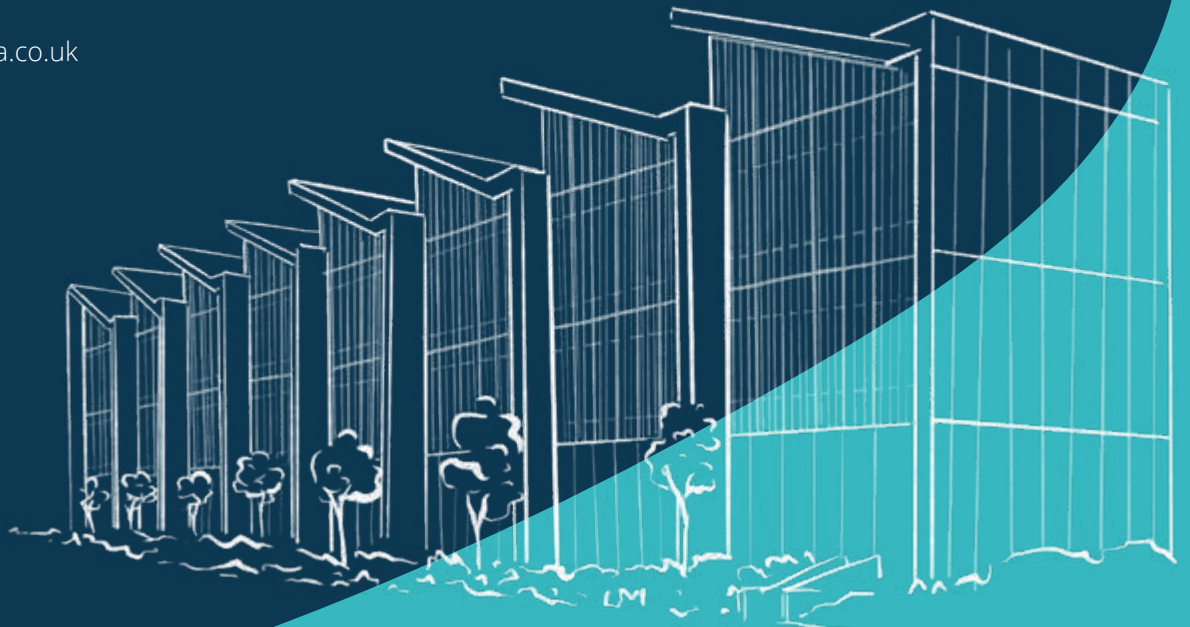
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