



## **1. INTRODUCTION TO KALWALL AND SYSTEMS AVAILABLE**

### **WHAT IS KALWALL®**

Kalwall®, developed and manufactured in the USA for over 50 years, is a highly insulating, diffuse light transmitting building panel system for use on walls and roofs. 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'.

The panels are factory pre-fabricated to the exact size and configuration for each project. Panels can be flat or curved, and 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, and Kalwall diffuses light so efficiently that even direct sunlight is converted into even illumination with reduced glare. The panel is generally 70mm thick (100mm is also available) and by providing various densities of insulation the thermal resistance and therefore 'U' values can be varied. 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 achieved European Technical Approval, ETA-07/0244, Please see Section 18.

Kalwall has been tested according to the procedures of EN13830:2003 – Curtain Walling Product Standard for CE Marking.

### **SYSTEMS, PANEL OPTIONS AND MOST ECONOMICAL LAYOUT**

#### **WALL PANELS**

- Vertically or horizontally laid out panels, flat or curved.
- Panel Unit Walls incorporating fixed or opening windows.
- Explosion Venting Building Panel Systems
- Anti Terrorism Approved Systems

#### **CUSTOM SKYROOF**

- Monopitch or Ridge Roof Designs. Manufactured to individual requirements and fixed to supporting structure by others, to a minimum pitch of 10°.

### **PRE-ENGINEERED SKYLIGHTS**

- Self Supporting Ridge Roofs to standard slopes of 20°, 27°, 33° and 45° with clear span up to 6m, dependent on local requirements.
- Kalcurve Low Profile Curved Vaults, self-supporting up to 7.4m span dependent on local requirements.
- 180° Barrel Vaults, self -supporting up to maximum span of 7.4m

### **STANDARD SKYLIGHTS**

- Pre-assembled flat skylights up to maximum size of 1500 x 6000mm
- Pyramids, standard four sided pyramids available from 1220 to 6100mm
- Geo Domes, Geo Roof segmented domes from 2440 to 8540mm

### **LARGE CLEARSPAN SKYROOFS**

- For spans up to 30m large skylights complete with supporting structure.