

**Z E N O N** <sup>®</sup>  
GRP DAYLIGHT SOLUTIONS

# BARREL-VAULT ROOFLIGHTS

## BROCHURE

[www.hambleside-danelaw.co.uk](http://www.hambleside-danelaw.co.uk)  
[sales@hambleside-danelaw.co.uk](mailto:sales@hambleside-danelaw.co.uk)  
+44 (0)1327 701920

# Barrel Vault Rooflight Solutions

Kerb-mounted barrel vault rooflights are popular where continuous runs of rooflight openings are required in flat, low pitched, curved and standing seam or secret fix roofing systems. Alternatively they can be used where in-plane or individual domed or pyramid type rooflights are not suitable or are inadequate in providing sufficient daylighting.

## Zenon Arc

Hambleside Danelaw produce Zenon Arc, a cost effective, robust and shatter resistant Glass Reinforced Polyester (GRP) barrel vault rooflight system. Zenon Arc provides excellent light transmission with good levels of diffused light distribution, and incorporates Zenon Shield - a purpose-designed UV-stabilised outer surface film for enhanced protection and durability.

The system is designed for simple installation onto kerbs or upstands in flat, plane or curved roof structures and can be installed for rooflighting applications along ridgelines. They can also be supplied with insulated end cap closures to better maintain the thermal continuity of the system. The rooflights are typically used within the industrial, commercial, retail or leisure sectors.

Zenon Arc barrel vault rooflights are manufactured and CE marked in accordance with BS EN 14963:2006 and ETAG 010. They are tested for non-fragility in accordance with the Advisory Committee for Roofsafety document ACR[M]001 offering expected periods of non-fragility up to 25 years subject to all other elements of the assembly or roof construction retaining their integrity for the same period.

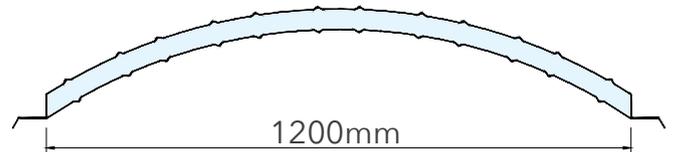
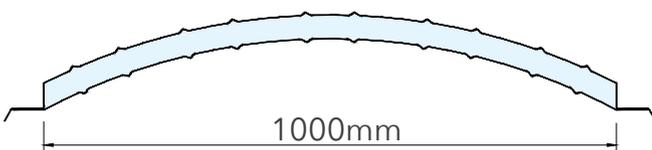
## Zenon Arc System Features

- Factory-assembled
- Insulation options
- Can be used with separate in-plane liner
- Opening sizes: 1000mm or 1200mm
- Finish: Translucent or tinted GRP
- Non-fragile to ACR[M]001
- Suits new build and refurbishment applications

# Zenon Arc



Zenon Arc pre-assembled barrel vault units in lengths bespoke for each project up to 2500mm, are available either uninsulated, or insulated with the Zenon Insulator system. They are characterised by longitudinal ribs for rigidity and may be constructed from Zenon Pro or Zenon Evolution GRP rooflight materials, depending upon the performance specification, durability and non-fragility periods required. They provide two daylight opening width options of 1000mm or 1200mm.



**Zenon Pro** is a rooflight material reinforced using traditional glass fibre 'rovings'. It is tried and tested and can be expected to remain durable and non-fragile for up to 25 years when installed in accordance with Hambleside Danelaw's recommendations, and as part of a non-fragile assembly with the same performance expectation.

**Zenon Evolution** is a rooflight material that delivers a truly innovative rooflight solution. Unlike traditional GRP rooflights, the glass reinforcement used in Zenon Evolution is an integrated woven safety mesh formed from continuous filaments of glass fibres providing very high tensile strength and resistance to tearing. It can be

expected to remain durable and non-fragile for periods in excess of 30 years when installed in accordance with Hambleside Danelaw's recommendations, and as part of a non-fragile assembly with the same performance expectation.

**Zenon Insulator** delivers low U-value rooflight options without significantly compromising light transmission. Hambleside Danelaw developed this unique lightweight cell structure core with cells perpendicular to the plane of the rooflight. The daylight is channelled directly, or by reflectance, into the building with significantly less light transmission losses compared to using a multi-layered transparent insulation system.

## Performance Data

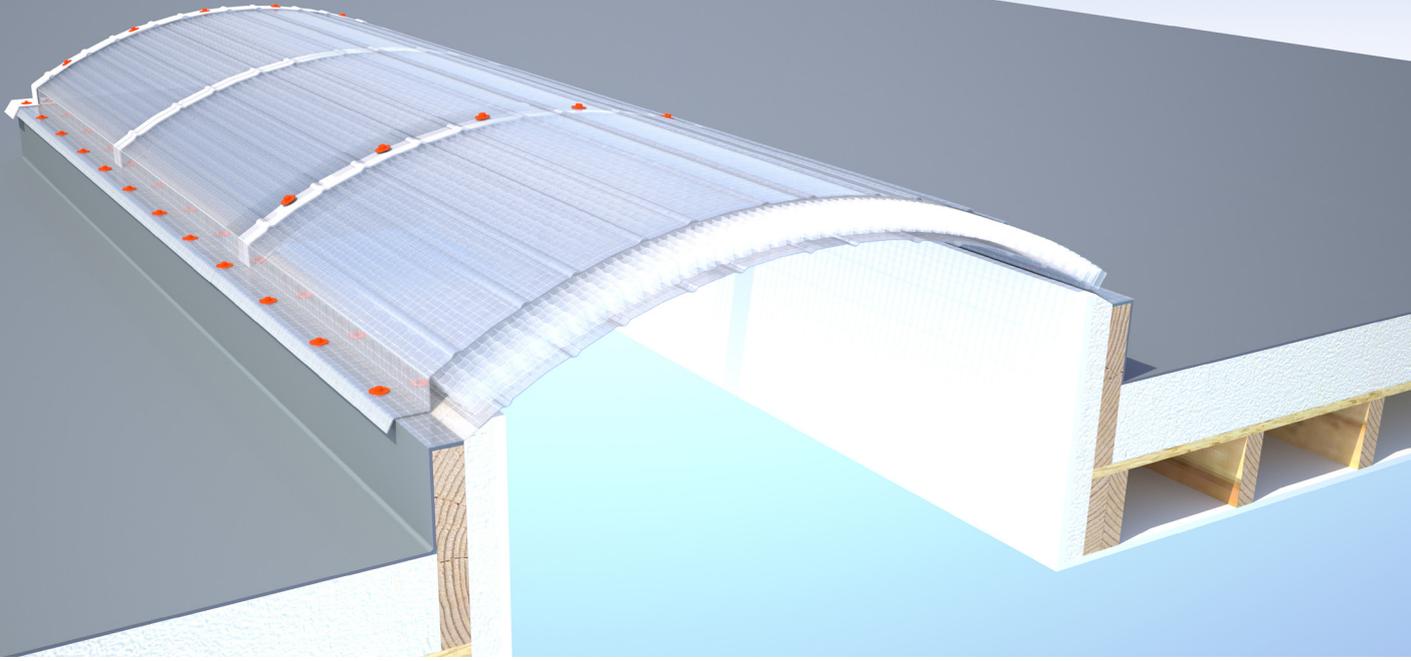
	U-value W/m <sup>2</sup> K	Light transmission %	Solar transmission %
Zenon Arc Pro	2.9	66	65
Zenon Arc Pro Insulator 40	2.0	66	65
Zenon Arc Pro Insulator 20/20	1.6	61	61
Zenon Arc Evolution	2.9	53	54
Zenon Arc Evolution Insulator 40	2.0	53	52
Zenon Arc Evolution Insulator 20/20	1.6	49	49

Light, solar and thermal transmittance data can be provided for installations where a separate rooflight liner sheet is used in applications such as these illustrated top.

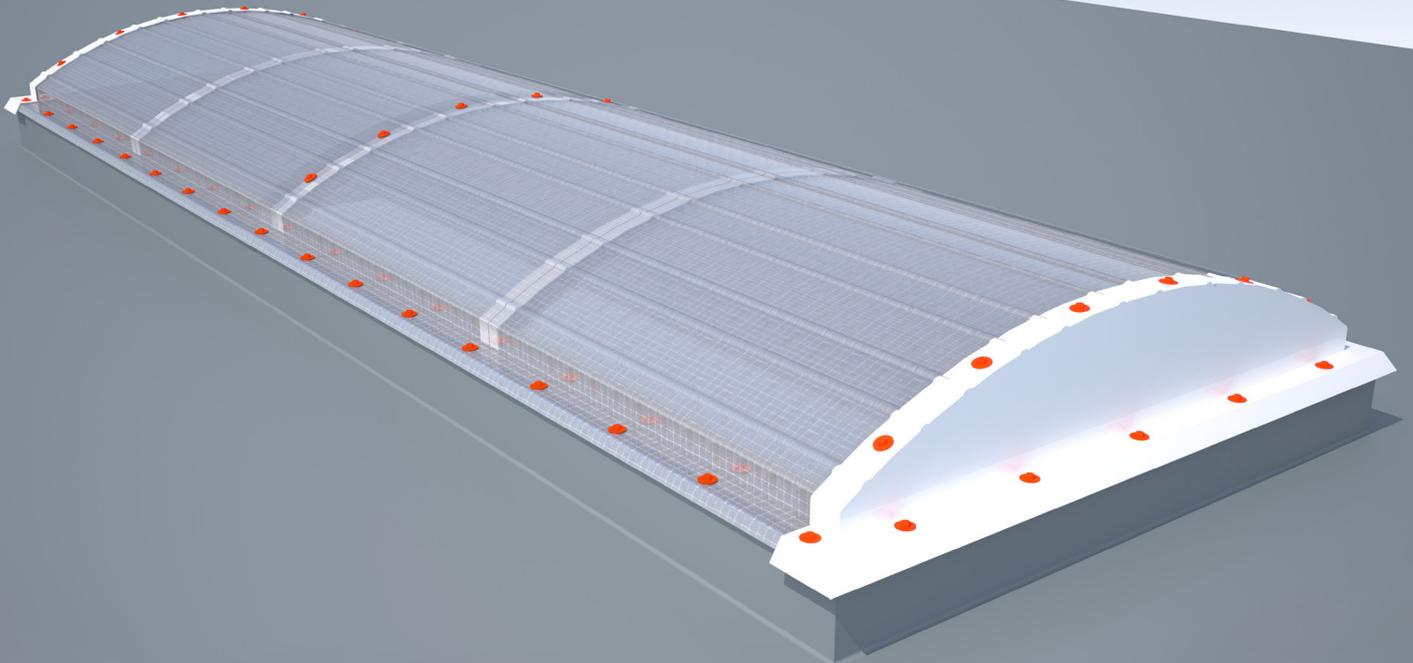
# Flat Roof Applications

Zenon Arc barrel-vault rooflights are ideal for use on all types of flat and low pitch roofs to suit all types of roof construction. They can be mounted on most kerb systems and constructions in combination with numerous different types of roof coverings and waterproofing systems such as asphalt, BUR, fully supported metal, liquid applied, single-ply and the unique Dryseal GRP membrane system.

## Typical flat roof construction



## Insulated end cap options



The Dryseal flat and low pitch GRP roof waterproofing system is unique and different from the 'wet-lay' GRP roofing methods. It is mechanically fixed pre-cured GRP membrane system with a wide range of pre-formed trims to suit all detailing requirements it can also be used vertically for cladding and parapet encapsulation and carries BBA certification for zero falls applications. To find out more about Dryseal, please visit our website; [www.dryseal.org](http://www.dryseal.org)

# DRYSEAL®

# Single Ply Composite Panel Applications

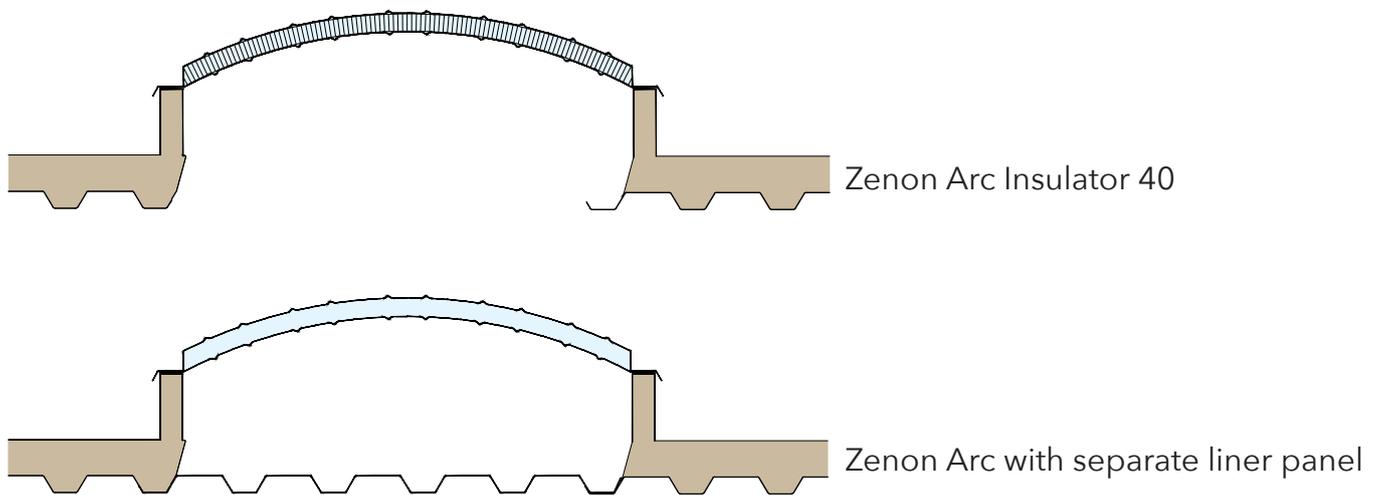
In flat roof decking systems comprising of profiled metal composite insulation panels with bonded single-ply waterproofing outer surface, both Zenon Arc and Zenon Curve can deliver excellent daylighting solutions by offering good levels of light transmission, thermal performance and non-fragility.

Hambleside Danelaw can provide single layer profiled rooflight liner sheets to suit the metal composite decking system in either Zenon Pro or Zenon Evolution rooflight sheet types. This helps maintain the continuity of the airtightness of the system while the kerbs and barrel vault rooflight assembly are installed above the roof level.

Alternatively, a factory-assembled composite rooflight panel assembly, to match the depth and profile of the roof panels, can be supplied incorporating additional insulation layers such as the Zenon Insulator.

Both options at liner level would achieve non-fragile classifications when fixed, and without reliance on either the Zenon Arc and Zenon Curve systems.

## Typical Barrel Vault Configurations





# ZENON<sup>®</sup>

**LOW CARBON GRP DAYLIGHT SOLUTIONS**

Zenon is a brand of Hambleside Danelaw Limited

For further support or to find out more about our Zenon rooflight products please contact us using any of the following methods:

T : +44 (0)1327 701 920

E: [sales@hambleside-danelaw.co.uk](mailto:sales@hambleside-danelaw.co.uk)

[www.hambleside-danelaw.co.uk/zenon-rooflights](http://www.hambleside-danelaw.co.uk/zenon-rooflights)

Hambleside Danelaw Ltd has a continuing product development programme. With any updates or changes to any products, we will ensure that this is communicated to our customers and stakeholders.

Terms and Conditions of Sale are available upon request. All images are for illustration purposes only and Hambleside Danelaw Ltd reserve the right to amend specifications without prior notice. All content is as recommended by Hambleside Danelaw Ltd.

Intellectual property of Hambleside Danelaw Ltd, permission required to reproduce all content of this publication.

In accordance with our policy for continuous improvement we reserve the right, should the need arise, to amend product specifications without prior notice. In turn, products may slightly differ at the time of the print of this publication.

The information found in this brochure is intended for information use only. We cannot accept any design liabilities.

**Hambleside Danelaw**  
**Building Products**

