

OTHER DIVISIONS

Architectural Glazing Façades



Roofglazing



COXDOME Continuous Rooflights



Smoke and Heat Ventilation



Corrugated Rooflights

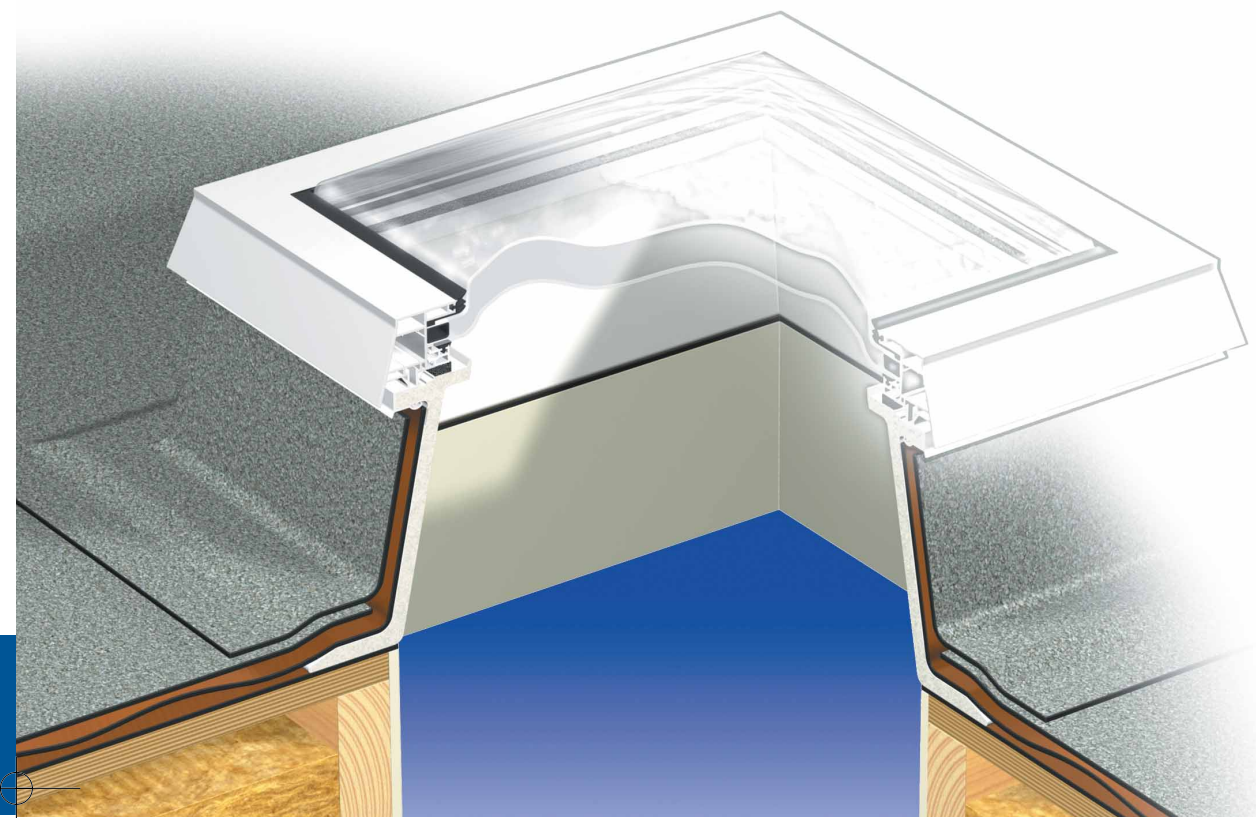


Cladding



COXDOME 2000

The Ultimate Rooflight System



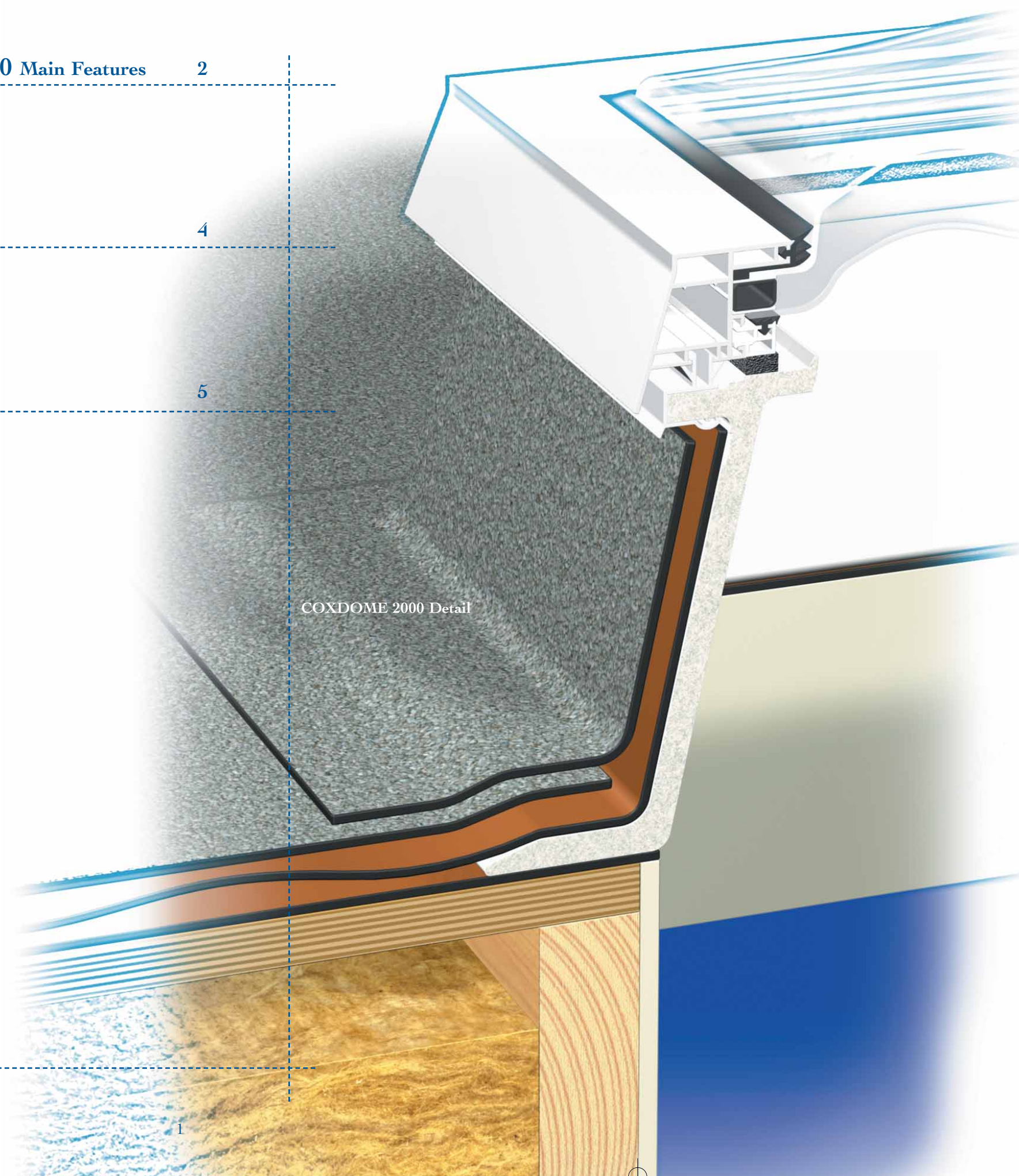
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The Main Features

The COXDOME 2000 rooflight system is the most technologically advanced and aesthetically pleasing rooflight system of its type, currently available in Ireland. Its all-plastic construction is the result of years of research and development providing complete thermal efficiency and minimising the risk of condensation. It can be specified for virtually any rooflight application, particularly domestic and commercial buildings.

Glazing

The dome consists of a double skin of 3mm thick polycarbonate with a UV inhibitor on the surface of the outer skin. A minimum 15mm air gap is incorporated over the entire area between the glazing surfaces.

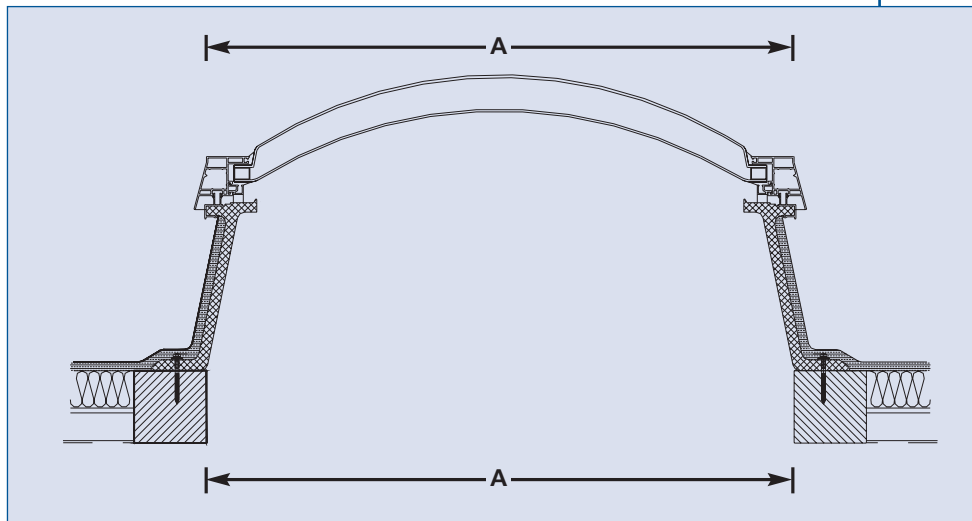
Dome Frame

The COXDOME 2000 dome frame is manufactured from a white extruded UPVC section. This incorporates a series of air pockets thereby providing an excellent thermal barrier.

Upstand

The COXDOME 2000 upstand (237mm high) is a CELUKA upstand, which is a foam based, modified UPVC, product with a Teflon coating. It allows only minimal heat transmission and does not require any additional insulation. This upstand is compatible with all roofing membranes.

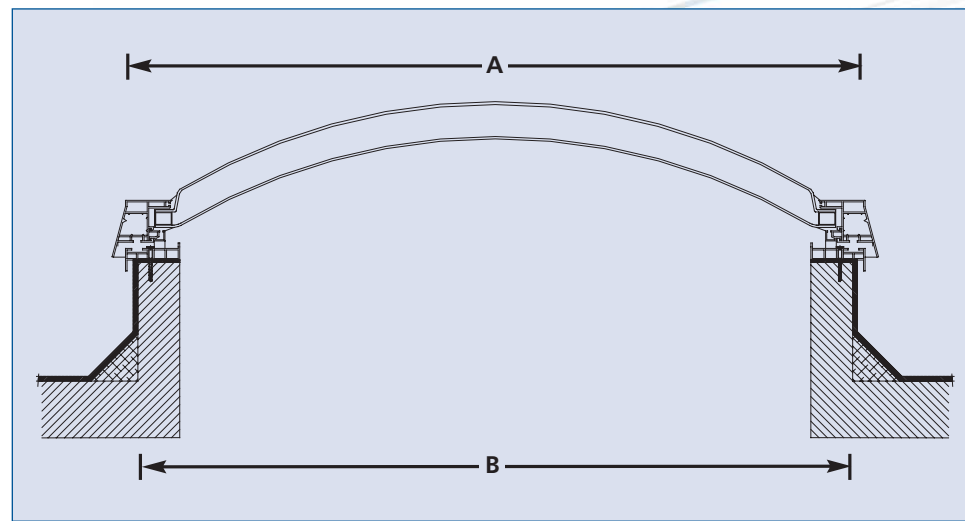
COXDOME 2000



The COXDOME 2000 rooflight is available in the standard sizes shown below.

When used with an upstand the roof opening size is the same as the rooflight size "A".

When used with a builders curb, the overall curb dimensions is 20mm less than rooflight size "B".



Dimensions		Ventilation Areas
Overall size of rooflight/ roof opening when used with splayed upstand (A) (mm)	Overall curb dimension including waterproofing when using curb adaptor (B) (mm)	Hinged ventilator
600 x 600	580 x 580	0.212
750 x 750	730 x 730	0.372
900 x 900	880 x 880	0.445
1200 x 600	1180 x 580	0.446
1200 x 900	1180 x 880	0.534
1200 x 1200	1180 x 1180	0.621*
1500 x 1500	1480 x 1480	0.797*
1800 x 1200	1780 x 1180	0.797*
1800 x 1800	1780 x 1780	N/A

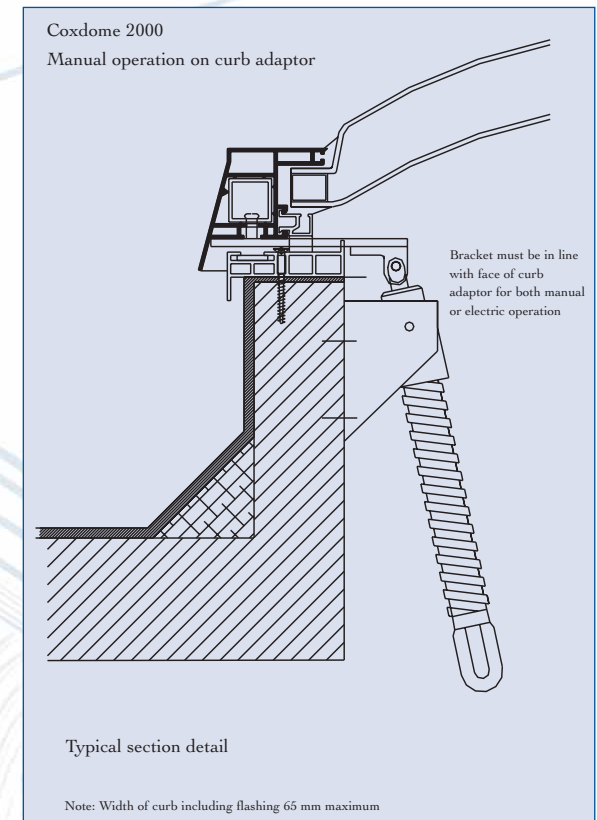
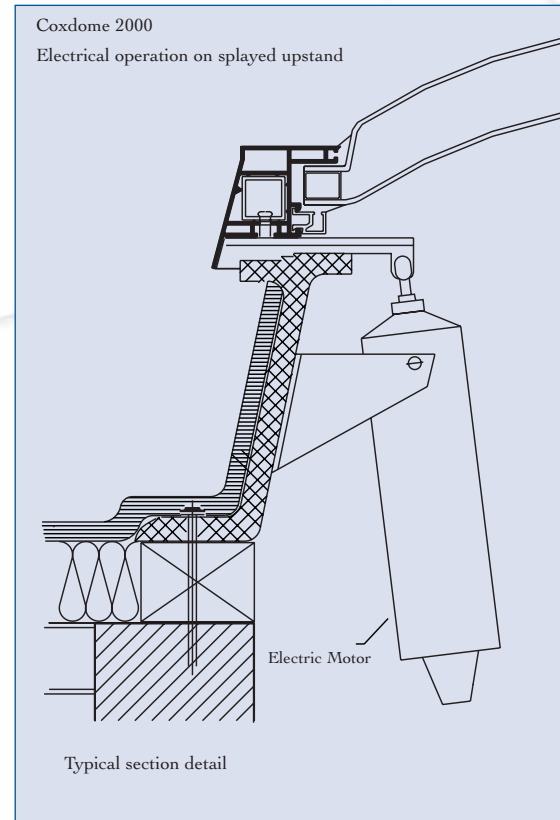
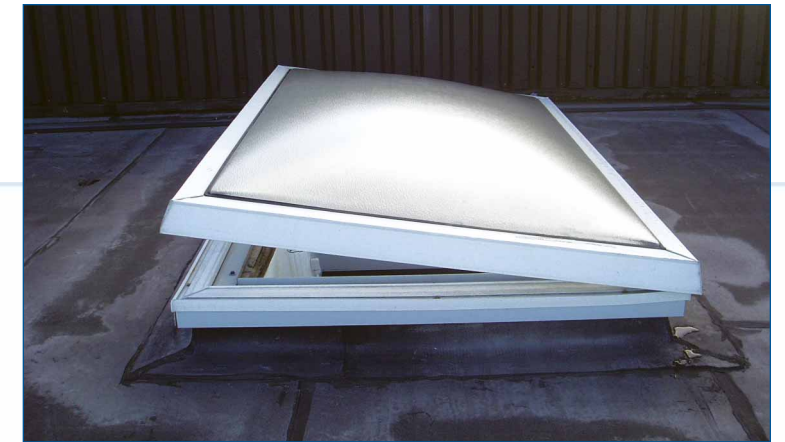
* = Ventilator operated by double opening mechanism

HINGED VENTILATION

Hinged Ventilation Unit

Where ventilation is required the COXDOME 2000 may be specified as hinged ventilation units in sizes up to 1800 x 1200. In all cases the dome frame is strengthened by steel inserts. Operation can be manual or electrical.

- Suitable for use with splayed upstand or curb adaptor.
- Unit fully sealed when in closed position.
- Infinitely variable degree of ventilation with manual or electric operation, up to a maximum opening height of 300mm.
- Manual option incorporates a worm drive opening mechanism which is operated by a portable opening rod.
- The electrical option incorporates a linear actuator operated by a wall mounted toggleswitch.



GENERAL INFORMATION



Application of Weathering Membrane

COXDOME 2000 rooflights are delivered ready assembled and with protective shrink wrapping; this should be cut where indicated and the lower portion removed. The protection to the glazing element should remain in place until all roofing work is completed.

The foamed UPVC upstand of the COXDOME 2000 is compatible with all weathering membranes.

Mastic Asphalt

To assist in the application and to combat the problem of asphalt 'slump' during warm weather we recommend that wire mesh be secured to the upstand using 9mm maximum size staples. Due to the insulating properties of the upstand sufficient time (4-6 hours) should be allowed between coats to allow for cooling.

Bitumen Felt System

The upstand should first be primed and then normal application techniques followed.

Torch-on Systems

The upstand should first be primed. The base and cap sheet should be applied using a "roll and pour" technique, the bitumen having been melted with the flashing folded back away from the upstand. Care should be taken to avoid scorching or damaging the surrounding dome frame of the rooflight with the gas torch.

Single Ply PVC System

The PVC upstand is ideal for direct bonding of the PVC single ply covering and may be solvent welded or fully adhered to the upstand to its full height or to the recommended minimum of 150mm.

Fixing to Builder's Curb

If waterproofing is dressed on to the top of the builder's curb it should be butt jointed and not lapped in order to ensure a secure and level fixing.

Condensation

The formation of condensation on the inner surfaces of a rooflight is governed by various environmental conditions such as humidity; internal and external air temperatures; air movement etc.

Condensation occurs where high humidity and low temperature surfaces interact - therefore the risk of condensation is highest during winter periods. If the humidity in the air cannot be reduced at source, possibly by removing the moisture producing operation, then the risk of condensation forming will be higher.

Careful consideration of the rooflight specification can help to reduce the incidence of condensation. The double skin of the COXDOME 2000 minimises the risk of condensate forming on the inside of the glazed element. Accordingly, if conditions are expected to be warm and humid or the location is of a residential or domestic nature, the use of our COXDOME 2000 rooflights described in this brochure is recommended.

GENERAL INFORMATION

Williaam Cox Ireland Ltd. clearly cannot control the environmental conditions and therefore under adverse conditions condensation may still occur without there being any inherent fault in the rooflight itself.

Thermal Transmittance

The average thermal transmittance (U Value) of COXDOME 2000 units is as follows:

Double-skin unit on PVC curb adaptor	2.74 W/m ² °C
Double-skin unit on PVC upstand	2.58 W/m ² °C

Important Notes

The responsibility for determining that any building component complies with the relevant Building Regulations rests solely with the client or specifier.

Exposure to excessive temperatures, unusual climatic or site conditions, or use on a pitched roof over 20°C will require special consideration: in such circumstances please consult Williaam Cox Ireland Ltd.

Information in this publication and otherwise supplied to users is based on our general experience, best knowledge and belief. Because of factors which are outside our knowledge and control and which can affect the use of products, no warranty is given or is implied with respect to such information.

The company's policy is one of continuous product improvement; accordingly COXDOME reserve the right to alter specifications without notice at any time.

Further Information

Individual brochures are available on other COXDOME products as follows:

- COXDOME Mark 1 & 3 rooflight systems
- COXDOME Mark 5 rooflight system
- COXDOME Continuous (Baselock) rooflight systems
- COXDOME Glass Rooflight Systems (Pyramid, Glasslite, Laantherna)
- COXDOME Smoke and Heat Ventilation Systems

COXDOME, Mark 1, Mark 3, Mark 5, Baselock, Pyramid, Glasslite and Laantherna are registered trade marks of Williaam Cox Ireland Ltd.

