Steadmans

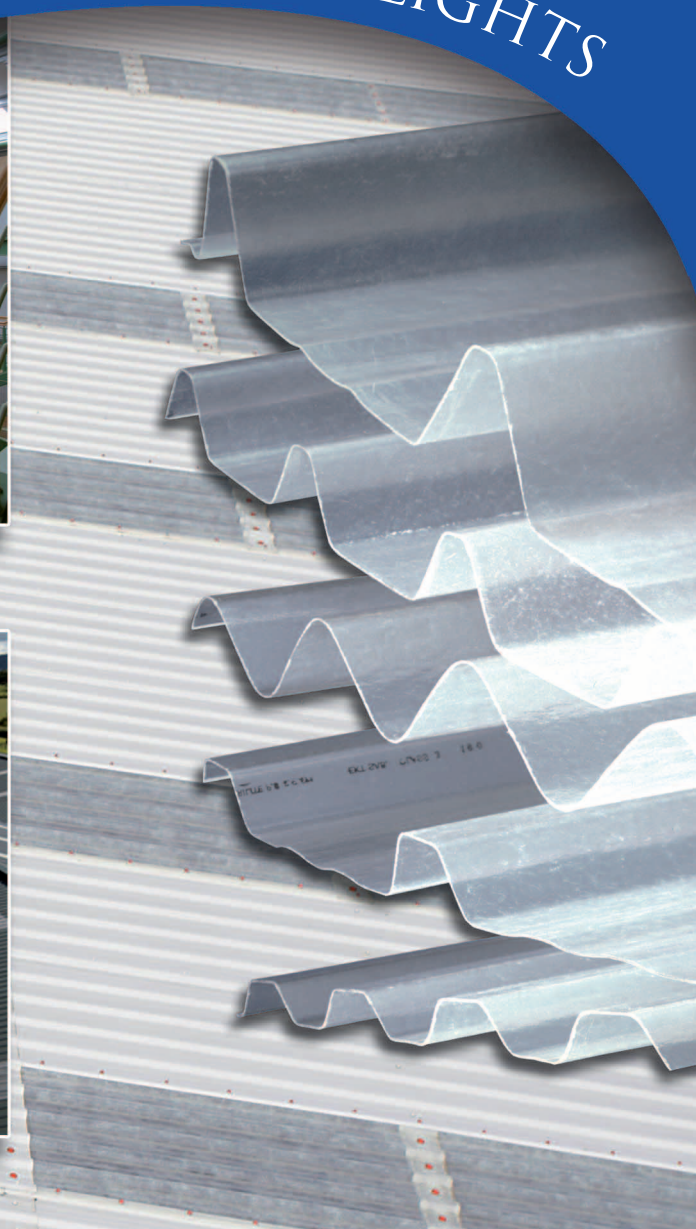
CI/SfB (4-) Nh2

March 2014

GRP ROOFLIGHTS

Manufacturers of Cladding Products for the Construction Industry

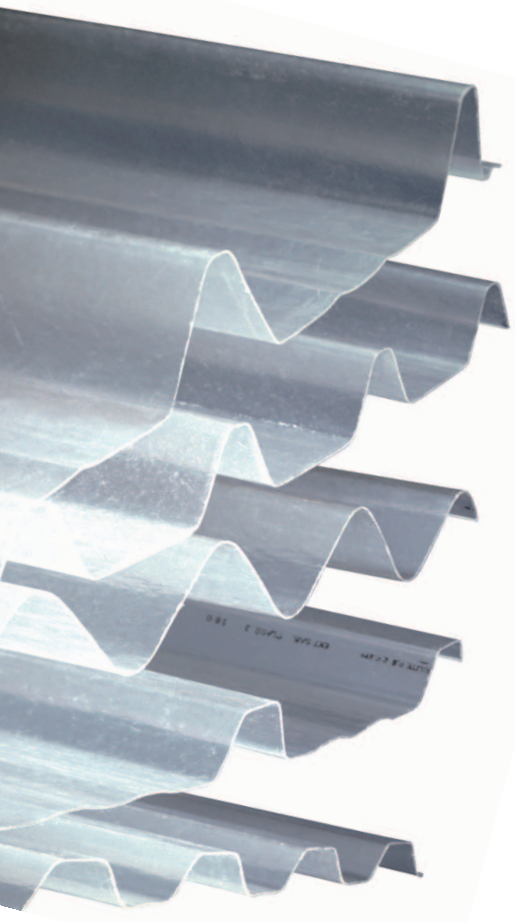
IN-PLANE SITE ASSEMBLED ROOFLIGHTS



A Steadman & Son Limited (usually known as Steadmans) is one of the UK's leading manufacturers of roofing and cladding, supplying high quality cladding materials from our sites in England, Scotland and Northern Ireland. We offer total roofing and cladding solutions which we deliver with our dedicated haulage fleet.

Our continuous investment programme and on-going product development ensures we can provide high quality products promptly and at competitive prices.

In this brochure you will find information on our range of in-plane GRP rooflights.



GRP ROOFLIGHTS

Steadmans' comprehensive range of in-plane GRP rooflights offers a cost-effective solution to providing natural light in buildings.

With light transmission levels of over 80%, Steadmans' GRP rooflights are ideal for retail, leisure, warehousing, industrial and agricultural projects.

Single, double and triple skin options are available in a variety of safety and fire ratings, enabling Steadman's GRP rooflights to be matched to specific project requirements.

GRP rooflights consist of translucent GRP with a surface treatment which resists the degradation and discolouration resulting from prolonged exposure to ultra-violet light.

GRP rooflight sheets are resistant to most common chemicals and will not corrode as a result of surface contacts with strong chemicals. Washing the surface of a rooflight sheet with water after contact with chemicals is recommended to extend its service life. GRP rooflight sheets can be cleaned with detergents or steam cleaned.

PROFILES

Steadman's range of GRP rooflights matches the profiles of our fibre cement and metal roof cladding (see Table 1) and is available in lengths up to 8.0m.

Rooflights are available in 1.83, 2.44, 3.0 and 3.66 kg/m² weights.

Table 1: Rooflight profiles

Weight (kg/m²)	1.83	2.44		3.0		3.66	
Surface spread of flame class	1	1	3	1	3	1	3
AS3							
AS6							
AS20							
AS13/3							
AS24							
AS30							
AS34							
AS35							

Standard range - available from stock

Special range - available to order

PERFORMANCE

The performance data for Steadmans GRP rooflight sheets is summarised in Table 2.

Fire

GRP rooflight sheets can achieve Class 1 or 3 surface spread of flame to BS 476-7:1997. Class 1 rooflights achieve SAA rating to BS 476-3: 2004 for external fire exposure on a roof, while Class 3 rooflights achieve SAB rating. For more information contact Steadmans Technical Department.

Rooflight safety

The fragility rating of a rooflight assembly must be appropriate to the expected service life of the rooflight and the likely degree of roof access required for maintenance.

The fragility class of a rooflight assembly is determined by testing to ACR (M) 001 (Test for Fragility of Roofing Assemblies), which is designed to establish the ability of a roof assembly to withstand the impact of a human body.

Table 3 reproduces the guidance from the The National Association of Rooflight Manufacturers (NARM) on the minimum weight of GRP rooflights to ensure non-fragility ratings for rooflight assemblies, at installation and after twenty-five years.

Designers should be aware that roofing materials and fixings will deteriorate over time and every rooflight will eventually become a fragile element.

Table 2: Performance data

Property	Units	Value
Tensile strength	kg/cm^2	720
Compressive strength	kg/cm^2	920
Flexural strength	kg/cm^2	1200
Barcol hardness	Barcol	>40
Light transmission	%	85
Thermal transmittance	W/m^{2}K	~5
Coefficient of linear thermal expansion	m/mK	2.7 x 10^{-5}
Service temperature	˚C	-40 to +120
Self-ignition temperature	˚C	487
Water absorption	% (volume)	0.2

Table 3: Minimum weights to achieve non-fragility

Application	Non-fragile Classification	Min. Weight for Non-Fragility When New	Min. Weight for Expected 25 Years Non-Fragility
Single Skin			
Rigid trapezoidal profiles for use with single skin metal sheeting	Class B	3.0kg/m^2	3.6kg/m^2
Rigid sinusoidal profiles for use with fibre cement sheeting	Class C	2.4kg/m^2	3.0kg/m^2
Double or triple skin site assembled with flexible profile steel liners (typically 0.4mm)			
Liner panel assembly alone	Class C	Outer: Not yet fitted Liner: 2.4kg/m^2	
Double skin assembly (where Class C non-fragile liner is required)	Class B	Outer: 1.8kg/m^2 Liner: 2.4kg/m^2	Outer: 2.4kg/m^2 Liner: 2.4kg/m^2
Double skin assembly (where there is no requirement for non-fragility of liner alone)	Class B	Outer: 2.4kg/m^2 Liner: 1.8kg/m^2	Outer: 3.0kg/m^2 Liner: 1.8kg/m^2
Double or triple skin site assembled with rigid profile steel liners (typically 0.7mm)			
Liner panel assembly alone	Class B	Outer: Not yet fitted Liner: 3.0kg/m^2	
Double skin assembly	Class B	Outer: 1.8kg/m^2 Liner: 3.0kg/m^2	Outer: 1.8kg/m^2 Liner: 3.0kg/m^2

Sign of Quality

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TECHNICAL SUPPORT

Steadmans offers comprehensive technical support to designers and contractors working with Steadmans products and accessories, including:

- technical brochures and data sheets
- CAD details
- copies of test certificates
- NBS Specifications
- design and installation guidance
- project showcase and case studies

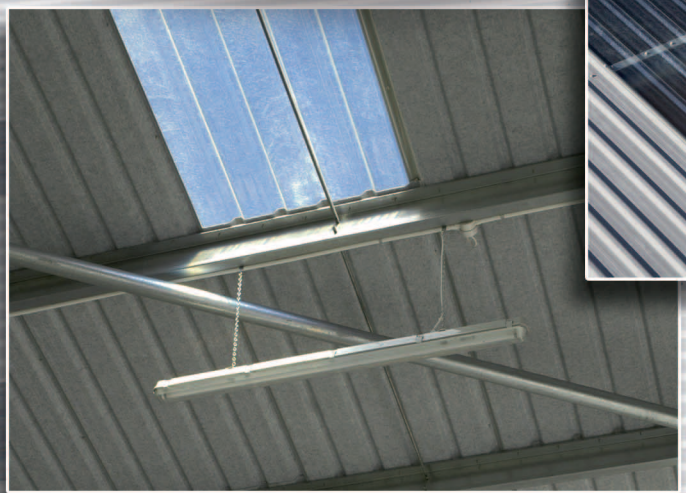
ENVIRONMENTAL CREDENTIALS

We recognise the need to manage the impact which our business and processes have on the environment. We believe we have a responsibility to contribute to the well-being of the communities we live in. We are committed to providing a clean, safe environment.

Developing sustainable construction methods presents a challenge to the whole construction industry. Our main raw material, steel, is eminently recyclable: 85 - 90% of steel from demolition goes for re-use and 40% of steel used in new construction has been recycled.

By using modern machinery and upgrading our facilities we are continually reducing the impact of our products on the environment, and improving their contribution to the long-term performance of buildings.

www.steadmans.co.uk



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