

# FILON<sup>®</sup> roofscape

Your regular update from the leader in GRP building products

## FILON makes light work

...of curved in-plane rooflights at British Car Auctions'  
major new facility in Bedford

"the largest automotive  
sales centre to be built  
in the UK for over a  
decade"

A CORUS PLATINUM CONTRACT

### PLUS:

**The new Part L:**  
Designing with  
rooflights to save  
energy

**Over-roofing**  
Roof refurbishment  
case studies

**Flat roofing**  
More new  
TecnaFlex  
installations

**Innovations**  
Modular buildings,  
canopies, drainage  
systems and more...

# Welcome to **roofscape**



**REGULATION or SPECULATION?** As manufacturers we try very hard to get it right first time. We invest and work to quality systems to achieve our aims. Likewise, when new legislation is being considered, many in our industry have significant input into the drafting of the documentation. It seems, however, that when politicians get involved and make promises, all good sense goes out of the window.

At the time of writing, the revised Building Regulations Part L is just about to come on board despite many in the industry believing that it is not ready. It seems amazing that government can apply pressure to introduce new regulations when they are aware that these are flawed and will need review and amendment before they can be fully implemented. In this issue we give an overview of the new regulations relative to rooflights and we'll endeavour to keep you up to date as the inevitable changes occur.

*David Hathaway*

**David Hathaway F.I.o.R.**  
Director of Sales, FILON Products

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## Quality comes first at FILON

Following the company's move to new premises, FILON Products has regained its ISO 9001:2000 accreditation.

The ISO 9001:2000 classification is specific to each business premises and therefore when FILON undertook the recent move, a strategy was put in place to maintain seamless quality systems and procedures throughout the period of the move.

Bharat Gandhi, Quality Manager at FILON Products commented on how important it was for this accreditation to be earned as quickly as possible. "Once we had decided to move to new premises, we highlighted that re-accreditation of our ISO 9001:2000 certification was a priority as it formed the major part of our quality programme. This

applies throughout the company, not just in the factory, so there have been many challenges resulting from the move. We're delighted to have achieved our goal so quickly."

Ron Allen, FILON Products Managing Director commented that he was extremely pleased with the achievement. "The ISO 9001:2000 qualification is a major benefit, not only for us but for all of our customers. The whole team here at FILON has worked extremely hard to achieve this re-accreditation and I'm delighted that we've been able to achieve it in such a short time".

FILON Products' new factory, has enabled the company to more than double its production capacity to meet the continuing high demand for its wide range of GRP roofing products and cladding profiles. ◆



**Bharat Gandhi, Quality Manager at FILON Products, accepts the company's new ISO 9001:2000 accreditation**

## Irish partnership pays dividends



As sole UK agents for the Italian-made Sun Modul Finesse range of polycarbonate rooflights, FILON Products has established a new trading and development partnership with Linco of Dublin, suppliers of the Sun Modul Finesse range in Eire.

Colin McGrath of Linco has been instrumental in working with Filon to promote the Sun Modul System and this has led to inter-trading and joint development initiatives between the two companies with their various rooflight systems. Linco supplies customers all over

Eire with a wide range of rooflights and roofing products.

David Hathaway, FILON's Director of Sales, commented: "I'm delighted with the way that our two companies have started working so closely together and I can see many benefits and opportunities for both organisations."

For further information about FILON and Linco products in Eire contact Colin McGrath at Linco, on 00353 1458 7180, email info@linco.org or visit www.linco.org ◆

*Picture shows flat glazed Sun Modul Finesse rooflights. Curved barrel vaults are also available.*

Published by: **FILON Products Limited**  
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Designed and produced by **Bennett & Partners**  
www.bennettandpartners.co.uk

## Corus Platinum approved FILON rooflights for British Car Auctions

Corus, the leading UK steel producer, supplies a wide range of roofing and cladding products, as well as offering associated components such as FILON rooflights through its Platinum Warranty scheme.

Corus panels and profiles were specified by GHP Architects for British Car Auctions' new vehicle remarketing supercentre near Bedford – the largest building of its kind to be built in the UK for over a decade.

From this site, the company now sells a huge range of vehicles, from company fleet cars to classic cars and commercial vehicles.

### Natural light - a key requirement

The new 25-acre facility features a cavernous covered viewing hall where cars are displayed to potential buyers before each auction. This hall provides protection from the elements with plenty of natural light – to present vehicles for sale in the best possible conditions. It is open on all sides, with a huge curving roof.

A structural steel frame with high-strength tubular steel supporting columns was used to create the hall. The 77 metre-wide area has just a single row of columns running down the centre, with the remaining

supporting columns located around the perimeter.

GHP Architects came up with a clever design for the roof, that utilised the natural curve of standard Corus steel roof panels. The trapezoidal R32 profile panels chosen are self curving with a radius of 40 metres.

### FILON: an integral component of the roof

FILON Products offers GRP rooflights in a wide range of standard profiles and is able to match all current roofing and cladding profiles from Corus and other manufacturers, as well as providing discontinued patterns for refurbishment projects.

The standard FILON R32 profile trapezoidal rooflights supplied to match the steel profile sheets were able to easily accommodate the 40 metre radius of the roof, which is of single skin construction, since no insulation is needed in this open-sided space.

Corus Platinum Partnership System Warranty was launched in 2004, to provide coverage for the building envelope for up to 30 years. The complete FILON range of GRP rooflights is available under the scheme. ◆



For further information about the Corus Platinum scheme, please contact Platinum Enquiries on 01684 856701 or email sales@coruspanelsandprofiles.co.uk



Steve Vickers, FILON's Technical Manager, who will be pleased to assist with queries relating to rooflights and the Building Regulations Part L 2006



## Designing with Rooflights to save energy

(The Building Regulations Part L 2006)

### INTRODUCTION

The new Building Regulations Part L 2006, designed to save energy and power consumption in buildings is part of an ongoing legislative programme by the Government and came into force on 6th April 2006. Further updates over the next 20 years are planned to create ever decreasing release of carbon dioxide (CO2) into the atmosphere.

### Energy demands within buildings arise from 3 key requirements:-

- Space heating and cooling
- Artificial lighting
- Mechanical - boilers, pumps and hot water.

Part L 2006 now considers all three key areas of energy usage plus the effect that one key area may have on another key area. This has become known as the building's 'carbon footprint'.

Interaction of these 3 key areas requires a fundamental rethink regarding the design parameters of buildings. A good example of this is the consideration of rooflights to buildings. To allow daylight to pass through the rooflights, they cannot be filled with opaque insulating materials and thus rooflight areas are less insulated than the opaque area of the roof. In the past this has meant that reducing the rooflight area would improve the insulation quality of the building. Such decisions did not consider the impact of turning on the electric light to replace the reduced or lost natural daylight. **The new legislation now considers not only the energy impact of designing with rooflights to provide natural daylight but weighs this energy cost against the requirements to provide artificial electric lighting.**

The other key fundamental change to Part L 2006 is that energy compliance will now be done by approved software or more usually by the Simplified Building Energy Model (SBEM) that can be obtained from the ODPM (on going to print - mid April 2006 - this software was not available). The computer program will consider the data for the complete building. Every piece

of data will have a relevance to the energy consumption of the building and have an effect on whether or not the building will be compliant. This will provide designers with more choice on design, materials and services and will show that by generally increasing the rooflight area, it will have a positive impact on energy reduction.

### DESIGNING WITH ROOFLIGHTS TO SAVE ENERGY

Traditionally most designers have considered that the rooflight area is less thermally efficient than the opaque areas and therefore a reduction in rooflight area will create a more thermally efficient building. Recognising that natural daylight is a good design feature to create a pleasant building, designers have balanced off the less efficient rooflights with the need for natural daylight and this has typically resulted in a rooflight area of 7% - 12% of the floor area.

### These considerations do not take into account:-

- The very inefficient energy cost of artificial lighting
- The benefits to heating costs associated with free solar gain
- The health and safety benefits of providing good levels of natural daylight to the people within the building

Research commissioned by NARM (National Association of Rooflight Manufacturers) via De Montfort University, found that buildings designed with a good and even spread of natural daylight through rooflights provided a positive solar gain with a reduction of use of artificial lighting.

### There is a need to recognise that:-

The electric light is carbon inefficient in that power from the National Grid is deemed to be based on fossil fuel.

Where natural daylight levels are low, the lights in the work place get turned on in the morning and stay on all day, regardless of the need for them.

Natural daylight through rooflights is completely free, provides some useful solar gain and makes the work place a pleasant environment.

### THE DE MONTFORT UNIVERSITY RESEARCH

The research considered the thermal effect and the energy used by heating systems and the illumination effects and the energy used by the lighting system, then qualified this to establish the overall energy used for the complete building and how this varied as the rooflight areas were increased from 0% to 20% of the floor area. It took into account the different insulation values of the rooflights compared with the opaque roof areas, the positive solar gain from rooflights, the difference in outside to inside temperatures, the time of year (daylight hours are less in winter) and at a number of locations around the UK. It also considered different illumination levels within the building dependent on the requirement of the workstations, different types of artificial lights and lighting control systems.

### CONCLUSIONS OF THE DE MONTFORT UNIVERSITY RESEARCH

Regardless of the light levels required, there will be an increasing CO2 energy saving for the whole building, even on 24 hour usage when the rooflight area is increased up to 20% of the floor area.

20% rooflights and a lighting requirement of 600 lux and where the building usage is 9.00 a.m. to 5.00 p.m. for 365 days of the year, will save 24 Kg of CO2/m<sup>2</sup> or a saving of 85% in CO2 emissions from lighting and heat loss through the roof compared with the same building with no rooflights.

For most industrial and commercial buildings, where rooflights are suitable for daylight ingress, the optimum rooflight area will generally be 20% of the floor area.

FILON Products is a founder member of NARM and will be happy to work with any design team to ensure compliance with the new Part L Regulations can be achieved.

Full copies of the 'Designing with Rooflights: Supporting the guidance in ADL-2A & ADL-2B (2006)' published by NARM, can be downloaded from the NARM website [www.narm.org.uk](http://www.narm.org.uk)

## FILON Over-Roofing: the roof refurbishment problem solver

Two roof refurb projects with very different requirements demonstrate the versatility of FILON Over-Roofing...

### Case Study 1

Factory premises, Camberley, Surrey

FILON Products Limited was approached by a client in relation to repairs to an old asbestos cement roof on a large factory building in Camberley.

A site visit concluded that many attempts had been carried out over the years to resolve roof leaks and that as a last resort a liquid applied coating had been adhered to the sheets, but to no avail.

The client's dilemma was that the roof needed replacing but due to the building slope and wide span construction there were major

concerns about re-roofing or over-roofing with metal due to the loads that would be imposed. Likewise, the costs involved and the health and safety aspects of removing the existing asbestos sheets were such that ideally an alternative method of re-roofing was required.

FILON's light yet extremely durable GRP Over-Roofing System provided the ideal solution. The contract to carry out the project was undertaken by Southern-based Industrial Building Solutions.

Andy Green, the proprietor of

Industrial Building Solutions, has long-term experience of FILON Over-Roofing and had no hesitation in specifying the system to resolve the weight problem and provide a long-life solution.

In partnership with FILON, the roof was surveyed, the sheets made and the contract was carried out within two weeks - well within the client's completion dates for the re-letting of the building. ◆



Before refurbishment



After refurbishment

### Case Study 2

Park House School and Sports College, Newbury, Berkshire

Industrial Building Solutions Limited were contacted by John Cheney, the Resource Manager for Park House School and Sports College in Newbury with regards to the refurbishment of their sports hall roof.

The roof was in poor condition and needed attention. However Mr. Cheney was concerned that the busy schedule of events and bookings at the hall should be maintained if possible through the period of the refurbishment. This requirement placed high emphasis on health and safety procedures on the site.

After surveying the contract, Andy Green, proprietor of Industrial Building Solutions recommended that FILON Over-Roofing would be the appropriate system for the project, due to its strength, long life span and above all, the minimal disruption caused during its installation. By simply laying the

sheets over the existing roof structure, the building could remain occupied and in use throughout the project. FILON produced all of the sheets to cut sizes as requested and worked closely with Industrial Building Solutions to ensure that deliveries did not coincide with movements at the school.

Over 1,000 metres of Over-Roofing of GRP Major Tile profile was used and this, together with the FILON patented profix spacer system, allowed the refurbishment to be carried out with no extra weight addition and the roof only having to be raised by 60mm - with the existing profile retained.

John Cheney commented that Andy Green and his team consulted him throughout the contract to ensure the daily running of the sports hall was maintained. Health and safety regulations were maintained at all times and the contract was completed on time. ◆



## Upgraded system brings compliance with the new Building Regulations

Proven in countless diverse applications throughout the UK, the patented FILON Over-Roofing system has been subject to further development to provide improved thermal insulation. The upgraded system falls in line with new initiatives to save energy and reduce carbon emissions. FILON Over-Roofing is available in the following standard profiles:

Bigsix  
Standard Six  
Cape Fort  
Cape Monad  
Doublesix  
Doublesix M  
Major Tile  
Trafford Tile  
Canada Tile  
Atlas Tile  
Turnall Combined

## TecnaFlex flat roofing for domestic applications

FILON approved TecnaFlex flat roofing contractor, Solihull Roofing Company, were charged by a client in the West Midlands to convert a sloping asbestos roofed garage into a flat roof incorporating insulation.

The client had researched various roofing systems via the Internet and decided to enquire about the FILON TecnaFlex system due to its innovative fixing system and its adaptability to incorporate insulation. Following initial contact with FILON Products he was recommended to Solihull Roofing Company who carried out the work.

Once the old structure had been removed and new joists and decking had been incorporated, a vapour control layer was laid over the roof, followed by an 80mm Celotex insulation layer. The unique TecnaFlex

MAP (Mobile Anchor Plate) fixings were then fixed through the insulation into the deck, thereby securing the insulation and at the same time providing fixing points for the TecnaFlex GRP sheets. These were laid over the MAP fixings and the joints sealed with bi-axial jointing mat before a TecnaFlex flow coat was applied and limestone chippings were incorporated into the flow coat.

Due to its unique ability to allow the roof covering to accommodate movement in the roof, the system has proved to be an excellent choice with a 25 year guarantee and life expectancy in excess of 40 years.

The client was delighted and expressed his satisfaction with the professionalism of the contractor as well as the high quality appearance of the roof.



Before the GRP TecnaFlex sheets are applied, the insulation layer and MAP (Mobile Anchor Plate) fixings are visible.



The finished roof - excellent aesthetics and effective performance with a 25 year guarantee

## Teamwork brings success for TecnaFlex contractor



Gibbs and Tregidgo, the Bristol based building company and approved contractor for FILON's TecnaFlex flat roofing system, has won a number of contracts for the system in the Bristol area.

Mike Gibbs of Gibbs and Tregidgo said "The partnering agreement that

has been set up between ourselves and FILON has proved of great benefit, with excellent technical and application support from FILON and further input from the company's TecnaFlex distributor, Asphaltic Roofing Supplies. With all three companies working together, it's proving to be a winning team".

David Hathaway, FILON's Director of Sales, added: "An important part of FILON's strategy is to build close relationships with both large and small builders and roofing contractors and to work with them through our distributor network to achieve best practice and best specification for the client".

FILON's long term commitment to distributors is a strategy that has been proven to work well. The company's close relationship with Asphaltic Roofing Supplies (part of the SIG Group), provides a reliable and authoritative source of products and services for contractors, at local level, wherever they are in the UK. For further information about FILON's TecnaFlex System or for details of your local approved TecnaFlex contractor, contact FILON Products on 01543 687300.

(l-r) Paul Rimmer of Asphaltic Roofing Supplies, Mike Gibbs, Gibbs & Tregidgo and Eric Burton, Filon Commercial Manager.

## Modular buildings feature FILON GRP panels

Parasol Modular Systems manufactures a wide range of modular buildings for animal housing as well as garden sheds and other types of buildings.

For its new range of smaller modular buildings, including the meat and game storage unit shown here, Parasol has turned to FILON Products for the supply of profiled GRP sheeting used for the internal and external walls and roofs of the buildings.

GRP provides a tough, lightweight and maintenance-free solution, which allows easy on-site assembly of the flat-packed units.

For further information, call 01279 876698 or visit Parasol on line at [www.parasolkennels.co.uk](http://www.parasolkennels.co.uk)



## NEW Filonite DIY Roofing Sheet

This new translucent GRP sheet is ideal for walkways, sheds, lean-to's and many other types of buildings.

Filonite comes in two different profiles and a range of lengths. It is available through FILON distributors. For further information, call us NOW for a colour brochure.

## Sun Modul Finesse polycarbonate rooflights

New brochure also available.



## GRP canopies cover-up

Canopies UK are leading providers of covered areas for many applications. Their unique self supporting System 2000 canopies are ideal for creating all kinds of shelters, covered play areas, or walkways.

System 2000 canopies are constructed from GRP and the unique translucent canopy modules are made for the system by FILON Products Limited. Filon GRP sheets are unique in that they incorporate special light diffusing additives which scatter light passing through, to provide high transmission of pleasantly diffused

light. UV resistant film on the outer surface provides a long, durable and trouble free life.

System 2000 canopies are extremely strong and vandal resistant. Based on a well proven cantilever design, no support posts or pillars are required providing there is a solid wall to fix to.

Canopies can be tailor made to suit any situation. The system has been fully tested against wind and snow loadings.

For further information, contact Canopies UK on: 01254 777002 or visit [www.canopiesuk.co.uk](http://www.canopiesuk.co.uk)



## FILON ScaFclad helps to make history

External refurbishment work on historic buildings requires specialist skills and techniques and is usually best carried out under cover to provide protection from the elements.

FILON Products has developed the ScaFclad System specifically for this purpose. ScaFclad translucent GRP panels are available in a

variety of profiles to match metal the protective sheeting used by refurbishment contractors.

ScaFclad panels can also be used to replace the metal sheeting completely, to allow the maximum penetration of daylight into the work area.

Historic buildings to have recently benefited from refurbishment



## Rainwater run-off: don't throw it down the drain...

Mole Drainage of Newton Abbot, Devon, has developed a combined soakaway and water storage unit, utilising FILON Products heavy duty Supasafe GRP sheeting.

The underground system allows rainwater from guttering to be salvaged and re-utilised by domestic plumbing systems or stored for garden watering.

For further information, contact Mole Drainage on 01626 201214.

## CPD Seminars

To book or receive further details on the following seminars please contact Marie at FILON Products Limited on 01543 687300.

### TECNAFLEX FLAT ROOFING - THE WAY FORWARD

This seminar covers the history of flat roofing along with remedies to overcome flat roofing problems. The seminar goes on to explain the unique patented TecnaFlex System, with case studies of the system and its benefits.

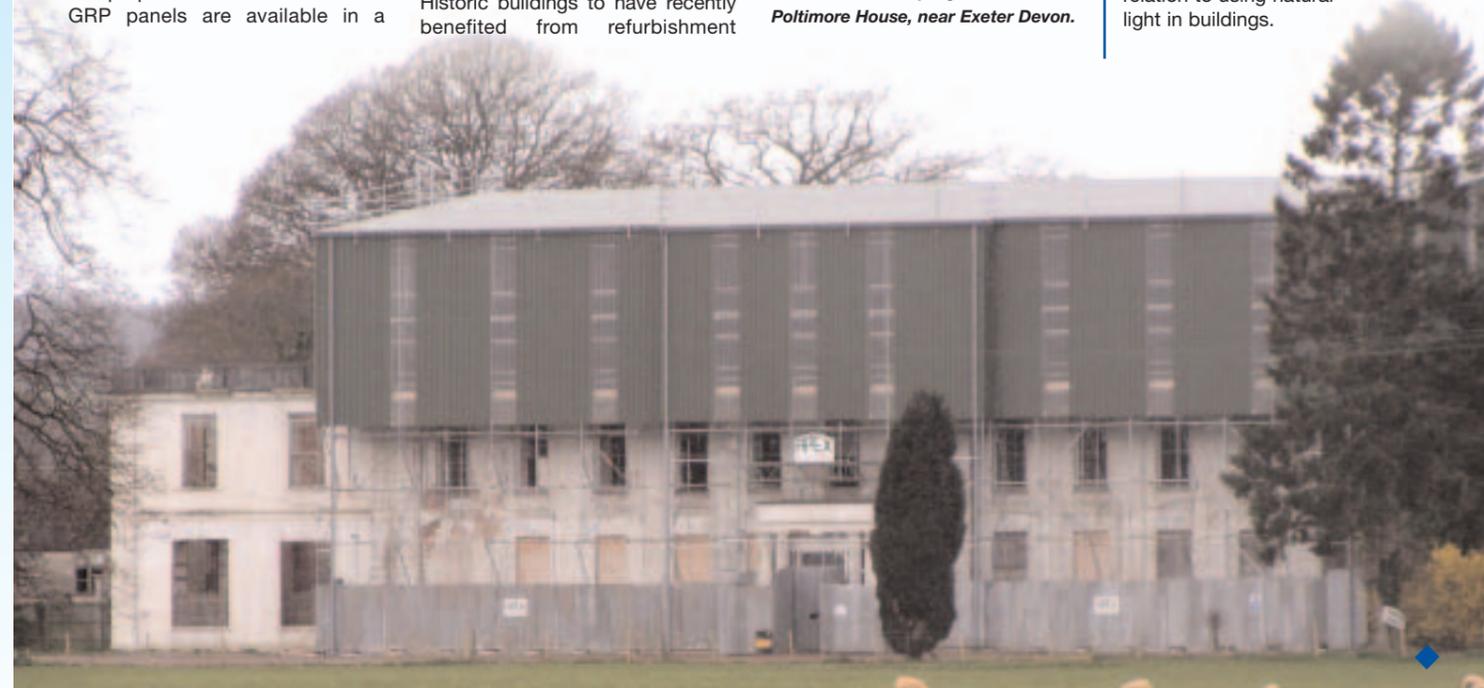
### ASBESTOS REGULATION AND THE BUILDING REGULATIONS PART L IN RESPECT OF REFURBISHMENT

This seminar will bring you up to speed on the current Asbestos Regulations relating to the removal / encapsulation of fibre cement or asbestos sheets. It also explains how the new Building Regulations Part L affect refurbishment work. Case studies will be presented, demonstrating FILON's unique Over-Roofing system.

### ROOFLIGHTS - THE NEW BUILDING REGULATIONS PART L, PLUS THE CDM REGULATIONS AND HOW THEY EFFECT ROOFLIGHTS

This seminar explains the affects of the Building Regulations Part L with regard to rooflights. It covers solar overheating and carbon emissions. It also explains how the CDM Regulations relating to rooflights have moved on and endeavours to give the listener a full picture of their options in relation to using natural light in buildings.

Refurbishment in progress at historic Poltmore House, near Exeter Devon.



# roo**FILON**lights

ROOFLIGHTS  
HELP TO  
**REDUCE  
CARBON  
EMISSIONS**

For advice  
about compliance  
with the revised  
**Building Regulations,**  
call us now on

**01543 687300**

or email [technical@filon.co.uk](mailto:technical@filon.co.uk)

We have a large product range to meet  
most applications and we match most of  
the 900 plus metal and fibre cement sheet  
profiles in the UK.

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[www.filon.co.uk](http://www.filon.co.uk)

email: [sales@filon.co.uk](mailto:sales@filon.co.uk)

## roo**FILON**lights

Filon offers a vast range of high quality GRP rooflights to match virtually all UK and European profiles

## supasa**FILON**e

As strong as steel, these rooflights remain non-fragile for the life of the roof and fully meet HS(G)33 and CDM regulations

## **FILON**Fairs

Factory assembled insulated Rooflights, made to measure & available to match most UK and European profiles.

## sun modul **FILON**Finesse

Modular rooflight system with multiwall polycarbonate glazing for curved barrel vaults spanning up to 8m or conventional glazing

## monarch-**FILON**

A range of GRP Barrel Vault Rooflights designed for use with shallow roof pitches, standing seams and secret fix system

...and now, **NEW**

## **FILON**Filonite

Strong, long-lasting easy-fix translucent roof sheets in two standard profiles...

**IDEAL FOR HOUSEHOLDERS, BUILDERS,  
FARMERS, HORTICULTURISTS**

