

Replace logo 

NGS GreenSpec supporting CLP

As presented to AECB Annual Conference Friday 29th June 2007

NGS GreenSpec Policies & Strategies

Direction	European Directives	Energy Performance of Buildings Directive 2002/91/EC
Enabling	Building Acts	Sustainable & Secure Buildings Act 2004
Primary	Building Regulations	Code for Practice Standards BS EN ISO
Secondary	Approved Documents	Tried and tested generic solutions
Tertiary	Sector Guidance	Industry Best Practice
	Sector Funded	Robust Details AD E & L
		CIRIA Airtightness Testing
		Infrared Testing

GreenSpec

GreenSpec is the UK construction industry's definitive guide to green building design, products, specifications and construction. It is the only guide to green building design, products, specifications and construction. It is the only guide to green building design, products, specifications and construction. It is the only guide to green building design, products, specifications and construction.

PRODUCTS **MATERIALS** **CHECKLIST**

how's your new product coming along?

GreenSpec

AVAILABLE 2007

sustainable building supplies

DESIGN **DURABILITY** **POLICY & STRATEGY**

GreenSpec

Policies and Strategies

Energy & Climate Change

UK Government

Energy Review 2006 (2006)

Climate Change Programme 2006 (2006)

UK Government

Energy Review 2006 (2006)

Climate Change Programme 2006 (2006)

UK Government

Energy Review 2006 (2006)

Climate Change Programme 2006 (2006)

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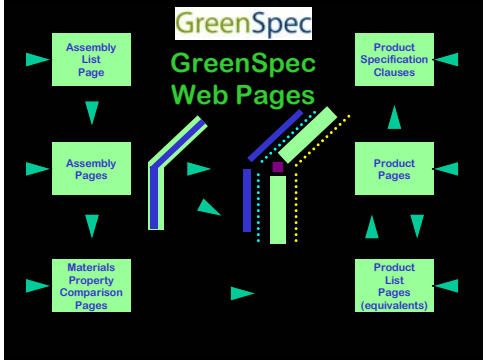
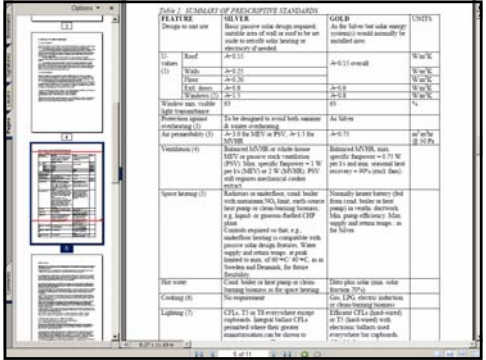
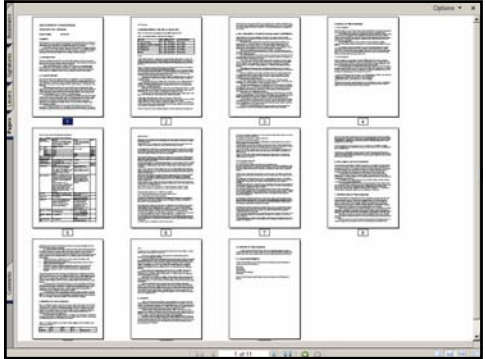
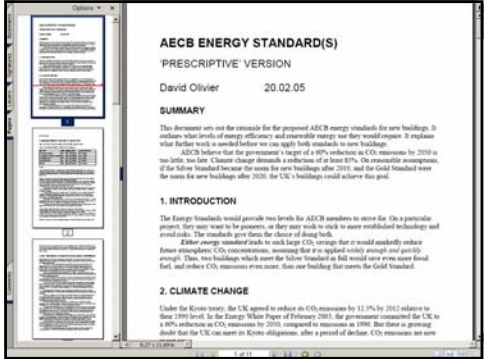
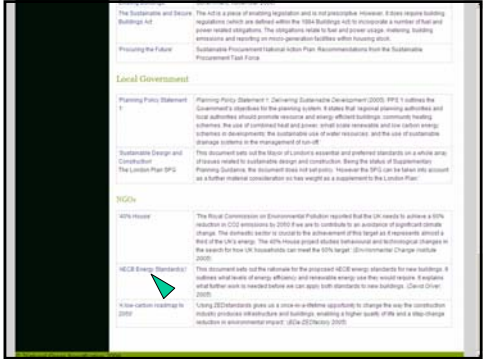
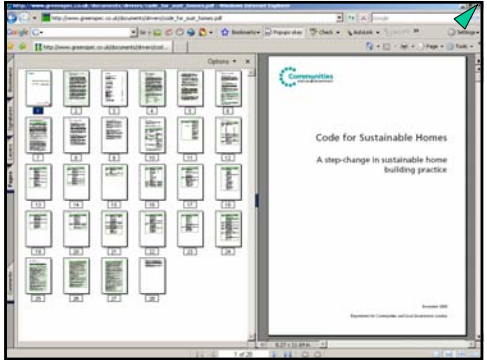
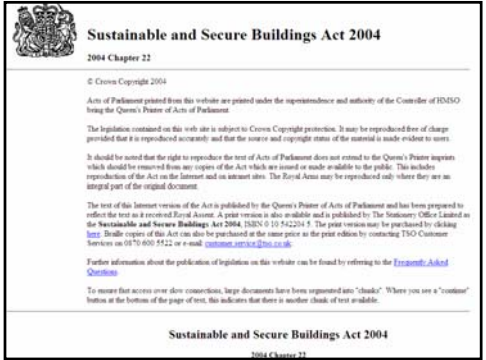
Climate Change Programme 2006 (2006)

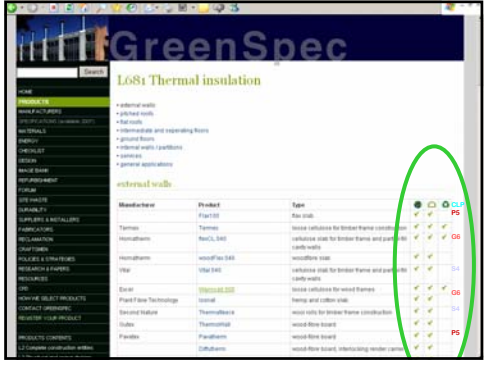
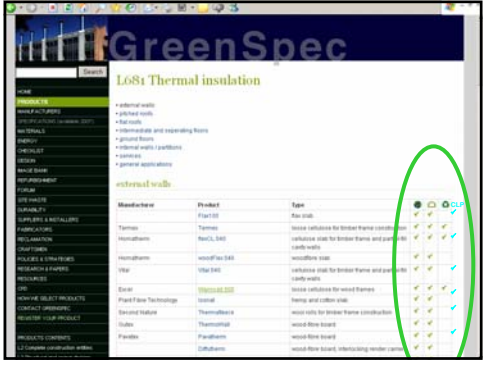
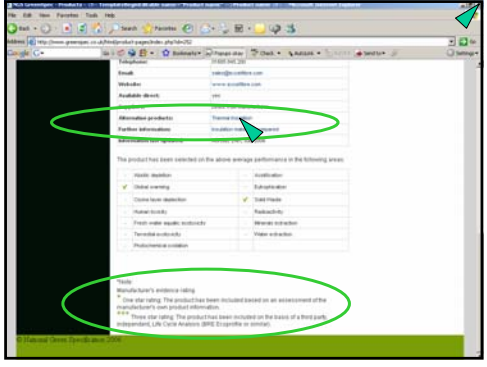
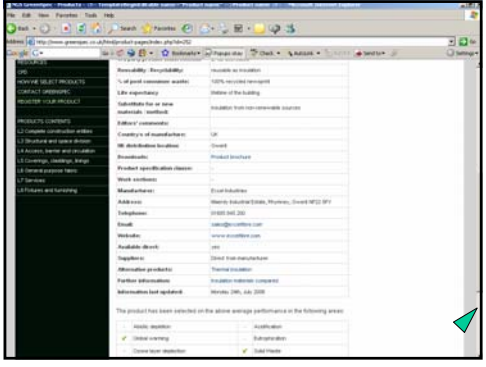
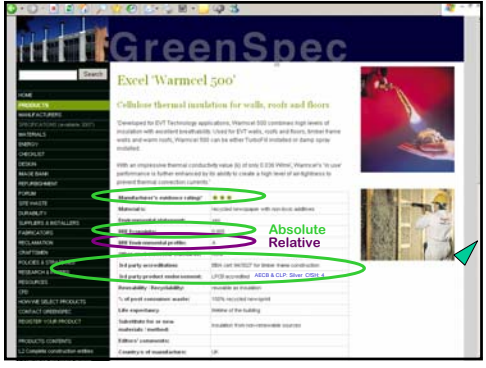
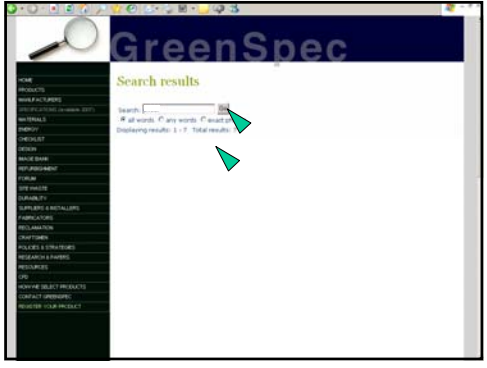
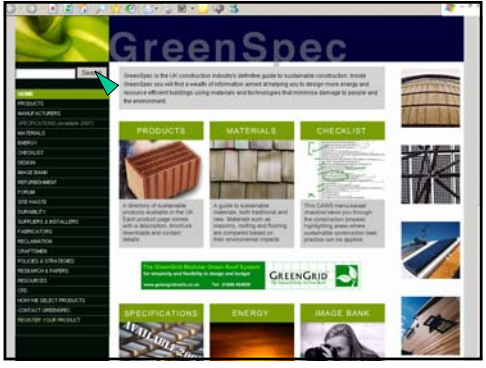
CIBSE Briefing

The Energy Performance of Buildings Directive

A summary of its objectives and contents

Directive 2002/91/EC of the European Parliament and Council, on the energy performance of buildings, sets out from 4 January 2003. It will greatly affect awareness of energy use in buildings, and is intended to lead to substantial increases in investments in energy efficiency measures within these buildings. Legislation must be in place by 4 January 2006, and will affect all buildings, both domestic and non-domestic. The major responsibility for practical measures to meet the requirements will fall on building services engineers. This briefing explains the main provisions of the Directive.





GreenSpec

Register your product on GreenSpec

Why your product should be an GreenSpec:

1. Make your information available to thousands of designers looking to specify green products
2. Have your product accredited as a 'green' product by industry experts
3. Be part of a rapidly growing market place

What is GreenSpec?

GreenSpec provides information and specifications, published by sustainable/green building products, to construction professionals.

GreenSpec is a product of government and construction industry, aimed towards sustainability. The website and service has been established by a collaboration between architects, specifiers, information suppliers, contractors, the CIB and the Building Research Establishment.

If you produce building components with sustainable credentials, we welcome your submissions to the GreenSpec catalogue.

- Using our GreenSpec, you are promoted to our business and provided with many new enquiries from designers looking to specify our products under the 'Building Environment'
- An invaluable guide to products with green credentials - 'The Manufacturer'

GreenSpec is the only search engine provider to be endorsed by the BBA.

Why GreenSpec is important to the construction products market

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Why GreenSpec is important to the construction products market

In a crowded market which lacks a common definition of what a green product is, GreenSpec provides the most efficient and cost-effective route to market differentiation for your product. By providing our former accreditation system, GreenSpec defines the market for green products in the UK. (If more information on GreenSpec is not available, please refer to our website published in Public Sector magazine 'Sustainable Buildings and the Green Market Guide')

What does GreenSpec?

GreenSpec currently receives up to 75,000 visits per month (source: Statistic). Users of GreenSpec include architects, structural engineers, mechanical and electrical engineers, interior designers, landscape architects, planners, contractors and construction professionals.

What GreenSpec provides the building designer

- An unparalleled catalogue of green building products
- Each product is independently assessed on its environmental credentials
- Each product page consists of a concise product description, images, contact details, links to the manufacturer's website and documents (such as 'CIB' and 'The Building Environment')
- Links to the fundamentals of selecting and specifying sustainable materials
- Case studies
- A series of downloadable documents covering aspects of sustainable construction (such as 'GreenSpec', 'Sustainable and not a contractor')
- CIB's website
- All information is freely accessible

Search Engine Rankings

- Using an internet search engine is a common way to find information about building products, so it is important that a product name ranks highly on search engine lists.
- 'Typically around 35% of all visitors come to GreenSpec via internet search engines.
- Though using product can't be guaranteed, GreenSpec performs exceptionally. On average

GreenSpec

Research and Papers

Construction

- Sustainable Construction: A report by CIBB (Society concerned to assist County Councils) - aiming to establish the cost of sustainable materials compared to traditional construction. The same results are obtained to allow about completion and durability has value.
- Building Substitution: The substitution of sustainable materials with non-sustainable products to construction is a major barrier to sustainable construction. It seeks to establish the importance of the product types that the building designer can begin control (other than GreenSpec, 2006).
- Commercial Green Building: Defining Sustainable Design in the Real World: Commercial contractors can often start the process of the building design. In this paper, a strategy for building green from the start is explored as the practical implications for the design of buildings in the UK are discussed (source: Peter, 2006 & Murray, 2005).
- Highway and Green Building: A report by CIBB (Society concerned to assist County Councils) - aiming to establish the cost of sustainable materials compared to traditional construction. The same results are obtained to allow about completion and durability has value.
- Lightweight Buildings: This report provides information on the green, passive design techniques that can be applied in masonry and concrete buildings to help achieve a more sustainable building. The report also includes a checklist of design, procurement and occupation. It also lists construction services other products that used these materials.
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GreenSpec

GREENSPEC AND THE GREEN MARKET

INTRODUCTION

by Sandy Patience

The identification and inclusion in our buildings of materials/products that minimise damage to the environment plays a crucial role in sustainable construction. Most materials are derived from natural resources. Some natural resources are plentiful and even renewable, but many are becoming increasingly scarce. Building products can contribute to the pollution of the environment in their manufacture and use as well as providing a source of danger to our health.

It makes sense that we develop a building materials strategy that minimises the use of diminishing resources and minimises the use of energy in manufacturing; and reduces the impact of buildings on our health and wellbeing.

Such a strategy should have as one of its essential characteristics a system by which the more environmentally friendly materials can be distinguished from the less environmentally friendly. Ideally, the strategy will help to define a market within which all green products, both traditional and innovative, prosper.

AN EMERGING STANDARD

The proposed 'Code for Sustainable Homes' lists 'Use of materials' as an 'essential element'. Use of the Code requires the relevant 'Minimum Standard' to be a 'big book inventory' for the homeware of materials/products used in the construction of the house. Quite what a list of components means to a householder and how that progresses the case, needs a plausible explanation. However, the Code goes on to explain how further points can

GreenSpec

COPING WITH SUBSTITUTION

QUALITY

by Brian Murphy

"There is hardly anything in the world that some men cannot make a little worse and sell a little cheaper, and the people who consider price only are this man's lawful prey." John Ruskin (1819-1900)

With the growth in Design and Build, Construction Management, Management Contracting and their many hybrids, we have seen changes in specification that have eroded the position of the designer and the quality of the completed building. Increasingly the requirements and methods of these forms of procurement have influenced the practices of contractors working under traditional contracts. Significantly it has become more commonplace for contractors to offer alternative products to those specified, usually offering potential savings.

If tender figures are returned that match the project budget, there should be no need to consider alternatives. However, if savings subsequently need to be made, it is the responsibility of the QS to identify areas of efficiency within the design and not that of the contractor who will inevitably be governed by wholly-different priorities.

PRODUCT QUALITY AND DESIGN LIFE

It should be understood that potential savings usually mean diminished quality and life expectancy. Often cheaper initial costs mean more expensive in-use costs: running, maintenance and replacement costs and increases in maintenance and replacement frequency.

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GreenSpec

PRODUCT PAGE FEATURES

- Information on your product
- Reviews of your product
- Environmental data
- Product description and images
- Contact information and links
- Supplier
- Why your product was

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Though using product can't be guaranteed, GreenSpec performs exceptionally. On average 35% of all visitors come to GreenSpec via internet search engines.

88% of all products achieve places within the top 5 Google rankings.

These manufacturers' own websites are ranked on Google, but GreenSpec ranks higher.

What products does GreenSpec select?

The products we select are commercially available products (currently available in the UK) that exhibits one or more positive environmental attributes or qualities that distinguish them from other products or materials in the same building category. More about assessment methodology and

Our service to you

- Once you have submitted details of your product it will be assessed by the GreenSpec selection panel.
- If your product is selected, we will send you a printed copy with further information.
- Once you have submitted details of your product it will be assessed by the GreenSpec selection panel.
- Once your 'product page' goes 'live', we will collect statistics of enquiries of that page (see example). This will give you a guide as to how many people view your product and when they can see a published 'live' page on our website (marketing campaign).

What it all costs

GreenSpec is a non-profit making organisation. All income subsidises the production of information, maintenance and marketing.

- The charge for GreenSpec Product Page on GreenSpec is £250 plus VAT per annum.
- There is a one-off reduction rate if you should wish to include more than one product page.
- See the GreenSpec website for more details.

What to do next

GreenSpec

How products are selected for GreenSpec

Green Product Definition

For the purposes of GreenSpec, a 'green' product material is:

A commercially available product - material/component available in the UK that exhibits one or more positive environmental attributes or qualities that distinguish it from other products or materials in the same building category.

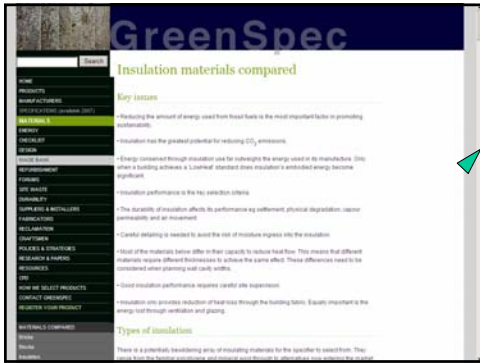
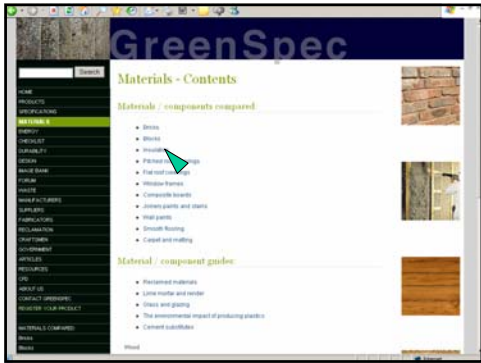
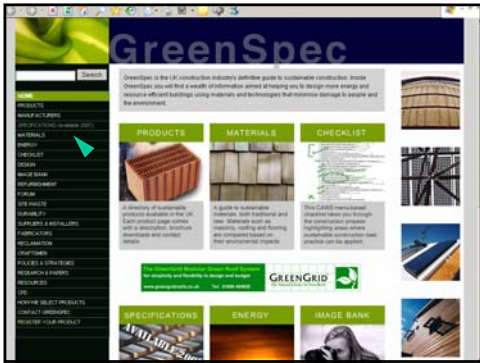
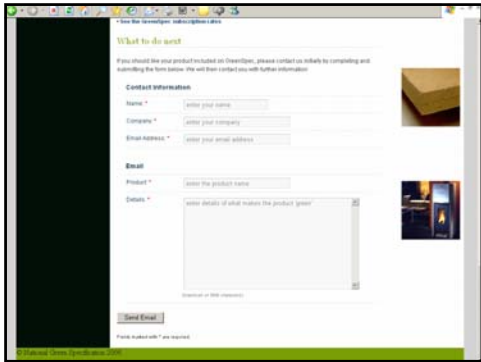
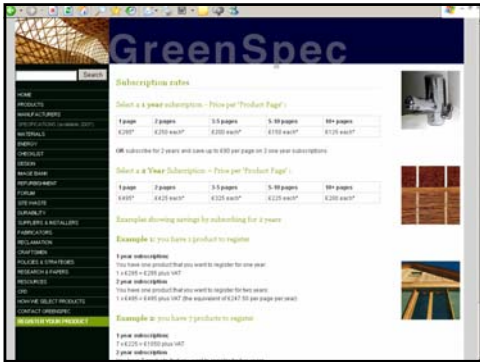
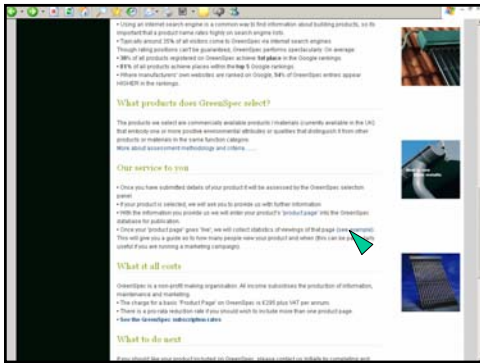
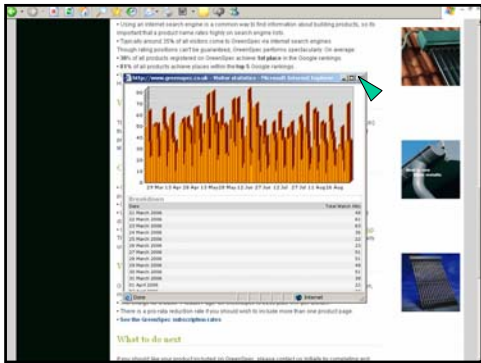
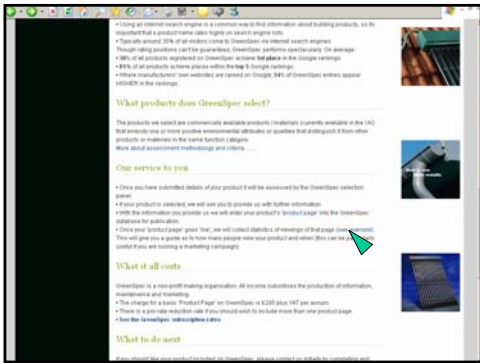
The selection process

- 1 Submit
- 2 Evaluate
- 3 Accredit
- 4 Publish

Information: Selection Panel Quality of evidence Website

The submission by the manufacturer will comprise one or more of the following documents:

- Manufacturer's literature including details of the manufacturing process and component materials
- Independent environmental certification (eg ISO 14001 or other LCA)
- Independent audit of manufacturer's claims
- Manufacturer's own support of claims
- Environmental Management Certificate (EMC) (EN 15245) or other accredited certification system
- Compliance with Construction Products Directive Essential Requirements and CE Mark
- Compliance with other standards
- Other relevant documents



Types of insulation

There is a generalised ordering of insulating materials for the specifier to consider. The range from the familiar polystyrene and mineral wool through to alternatives now entering the market such as sheep's wool and hemp is in all respects the same as for the last few years. We have grouped insulation materials according to provenance.

- 1 Insulation derived from organic sources
- 2 Insulation derived from natural occurring minerals
- 3 Synthetic mineral
- 4 Insulation derived from fossil oil or vegetation

When selecting an insulation material, specifiers should be given to performance in the construction context. Can the insulation material be capable of performing all the functions called for by the spec? Most products suitable for certified wall construction but not for overhead cables. The choice of insulation will be governed by choice of construction and site access.

Though selection by performance continues to be the most important consideration, the current market of mineral or glass products will continue to dominate the market. The UK still does not have a market for some products but other, often newer products have not had their claims verified by third party research. Given the size of the market, manufacturers claim a competitive market will be open to competition. This has proved to be a hard sell considering the impact of the information we have provided below. Not only do products have to compete with a low cost mineral wool but also have to compete with a high cost mineral wool.

1 Insulation derived from organic sources

Sheep's wool batts and rolls (BSA certified available)

- Recyclable
- Non-toxic materials
- Low embodied energy that can increase significantly if imported
- Safe to install, non-sprinkled fibre
- Biodegradable in service
- High natural content
- Has been approved for use in external wall cladding and rainwater production

Sheep's wool batts and rolls (BSA certified available)

- Recyclable
- Renewable resource
- Low embodied energy that can increase significantly if imported
- Safe to install, non-sprinkled fibre
- Biodegradable in service
- High natural content
- Has been approved for use in external wall cladding and rainwater production
- Digestible/absorbent in sheep rolls are linked to illness in farmers; they can also damage fish stocks when released into the water course
- Discoloration: Wool can absorb some moisture whilst remaining an efficient insulator. This feature can help prevent condensation in cavity wall construction by transferring the moisture away from the wall. This is not a problem in cavity walls and is not a problem in external walls.
- Green Spec rating: 4

Calculation facts:

- Recycled and renewable: From air
- Safe to install, non-sprinkled fibre
- Biodegradable in service
- Low embodied energy
- Provenance: wool and formaldehyde subject to strict control from growing sites and additional inherent factors between the insulation and the living space will prevent the wool area appearing to be a newly published current issue through air, it would occur in exceptional circumstances
- Contains additives for fire resistance, a fungicide, and sometimes a binder to reduce sagging
- Major in manufacturing: our aluminium extruders
- Durability: Performance can be compromised if brought into contact with moisture
- Embodied energy: 0.028 kWh/m² - 0.040 kWh/m²

NGS GreenSpec Product Selection

How GreenSpec selects products for the website content

GreenSpec

How products are selected for GreenSpec

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The selection process

- 1 Submit
- 2 Evaluate
- 3 Accredit
- 4 Publish

Submission of information

The submission by the manufacturer will comprise one or more of the following documents:

- Manufacturer's Brochure including details of the manufacturing process and component materials
- Independent environmental certification (eg Eco Building or other GRS)
- Independent verification of manufacturer's claims
- Manufacturer's user support of claims
- Environmental Management Certification (ISO 14001 series) or other accredited certification system
- Compliance with Construction Products Directive (European Requirements) and/or CE Mark
- Compliance with British Standards
- BSI Certification

GreenSpec compare environmental characteristics of many materials

GreenSpec includes dark & light green products but excludes violet

GreenSpec includes pale violet materials with high recycled content

AECB CLP includes dark green, light green & violet

NGS Continuous Improvement

New items added

Many not apply to CPL

Products considered and included

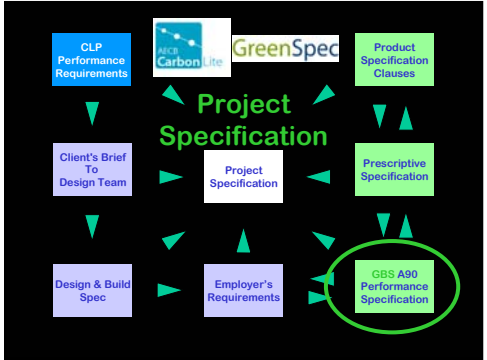
NGS GreenSpec Content

Worst items dropped

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NGS GreenSpec Specification Clauses

Performance Generic & Prescriptive Specification clauses



NGS GreenSpec Performance Specification

A90 with CLP building Performance Specification clauses

AECB
Carbon lite Programme

Principles:
Insulation Airtightness Cold Bridge Avoidance

Performance Requirements:
Buildings Elements/Assemblies Services

GreenSpec

A90 Performance Specification Buildings Elements Services A91 Prescriptive Specification

Material & Component Generic Specifications Manufacturer's Product Specifications

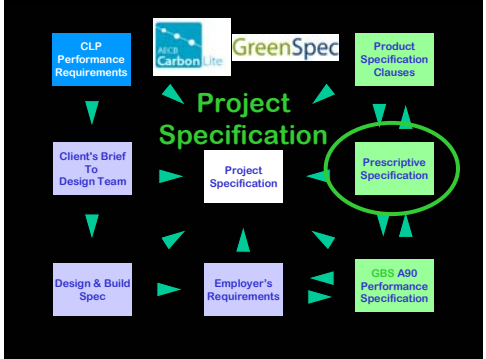
A90 Performance Specification Buildings Elements Services A91 Prescriptive Specification

Material & Component Generic Specifications Manufacturer's Product Specifications

Generic Specs **Gold** Dedicated Products Specs

Generic Specs **Passivhaus** Dedicated Product Specs

Generic Specs **Silver** Dedicated Product Specs



NBS Generic Specification Clauses

Materials or Product clauses without naming manufacturer and product

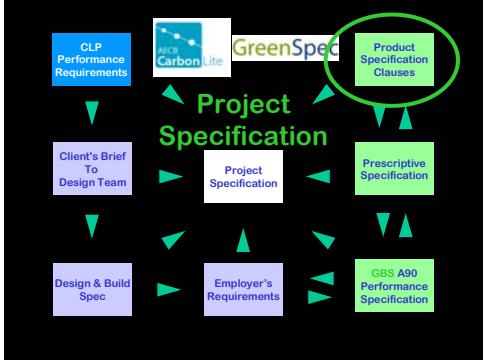
Generic NBS Specification

P10 Thermal Acoustic & Fire Proofing
110 ROCK MINERAL FIBRE

- Application: somewhere
- Manufacturing Standard: BS 1234
- BSI Kitemark: Required
- BBA Certificate: Required
- K value: 0.33 - 0.45
- Acoustic performance: 30-35 dB
- Density: 100-125 kg/m³
- Thickness: 50 - 300 mm.

- Manufacturer & Product Reference: **Contractors Choice** Submit proposals to CA for review
- OR
- Manufacturer: InsulMan
- Reference: ManMadeInsul
- Or equivalent (by virtue of NBS Preliminaries requirements)

Prone to substitution
Prone to surreptitious substitution
Prone to abuse by many parties:
Contractors, Buying department, QS, Employer



NGS GreenSpec Specification Clauses
Dedicated product clauses

Performance > Spec > Product

GreenSpec Manufacturers

Performance Spec Prescriptive

A90 Perf. Spec P10 Insulation

Performance Requirement

Products Products Products Products Products

Dedicated Prescriptive Green Building Specification

P10 Thermal Acoustic & Fire Proofing

- 100 THERMAL INSULATION
- Performance Achieved:
- Test Evidence: Report 33/2006
- Manufacturing Standard(s): BS 1234
- Installation Code of Practice: CP 103
- 3rd Party Accreditations: _____
- BSI Kitemark: KM 1234
- BBA Certificate: 00/0001
- Manufacturer: Insumaker
- Product Reference: ManMadeInsul
- Contact Details: T F E W; Rep M

- K value: 0.4
- G value: 5
- Sy value: 2.3
- Density: 100 kg/m3
- Thermal mass: 66
- BRE GGIS rating: A
- BRE Environmental Profile: No
- EcoPoints: 1077
- EcoHomes, BREEAM: credits: 1
- 3rd Party Endorsements: AECB Carbon Lite Programme: Gold+
- Recycled content: 60% post consumer
- ZODP: Yes

GreenSpec

Contact GreenSpec

What to do next

Contact Information

Name *

Company *

Email Address *

Email

Product *

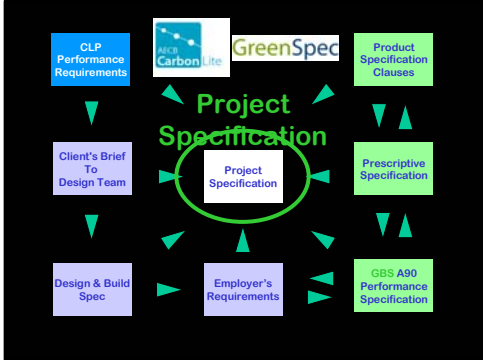
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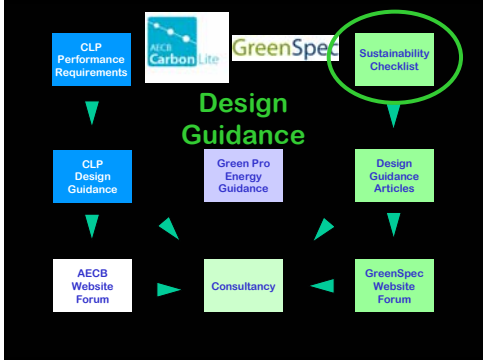
NGS GreenSpec Project Specifications

GreenSpec try to avoid doing project specifications



NGS GreenSpec Sustainability Checklist

Will be embellished with CLP advice



1. What sustainability means to you

Includes listing of activities, differentiating sustainability from conventional construction, design, specification and materials.

2. Using GreenSpec

This seminar looks at the features that GreenSpec offers and how to use them. The various features include specifications, the electronic product data and information sources as well as other offers.

3. Overcoming Barriers

This seminar investigates the barriers to adopting sustainable construction methods and how to overcome them. The seminar looks at the problems respective parties encounter in the supply and construction chain.

4. Government Drivers

This seminar identifies government and local government legislation relating to energy and sustainable construction including the Code for Sustainable Homes, the Building Regulations and local authority planning guidance.

5. The Sustainable Construction Checklist

Based on the GreenSpec Checklist, this seminar looks at the issues involved in making the design and construction process more sustainable.

6. Specifications

This seminar is a key list of the ingredients of sustainable buildings. The content specifications can make the difference between the hopes and wishes of the designer's ambitions. This seminar examines the tools of the trade including how to integrate GreenSpec specifications with LBS.




7. Measurement & Costs

This seminar examines the claims manufacturers make concerning the environmental credentials of their products. It explains how manufacturers mislead and obfuscate and identifies how you can cut through the noise from the staff.

8. The Costs of Going Green

This seminar looks at the real and perceived costs involved in producing a sustainable building including overcoming barriers presented by clients and quality assurance, value engineering and lean construction.

9. Lean Construction

This seminar examines the processes that generate resource efficiency in the construction process from an evaluation of production information, health and safety through to waste elimination.

10. Refurbishment




This often looked upon as new-build a poor relative, refurbishment has a vital contribution to make to the carbon reduction agenda. This seminar examines the various initiatives dedicated to developing construction methodologies applicable to a wide range of buildings.

11. Waste Management in Design, Construction and Use

Building a house of construction waste has traditionally been seen as inevitable. But things are changing. On the one hand government legislation promoting recycling and on the other there is the realisation that there is money to be made from reducing waste. This seminar looks at the existing legislative landscape and explores the tools for reducing waste from production and participating through to lean design and life waste disposal.

12. Remediation and Reuse

There is a massive potential to reuse building materials arising from unwanted buildings. There are an almost infinite number of material options that can be given to the construction industry. This seminar looks at how you can engage with the supply chain. This seminar examines the barriers involved in specifying reclaimed materials together with ways of overcoming them.

Register Costs

The proposed seminars built on those listed above are charged at £20 plus VAT plus travel. Delegates seminar costs vary according to research and preparation time. Please ensure travel/expense are charged at between £50 and £200 depending on hours and work location.

Contact

Please contact GreenSpec for further information using the form below.

Contact Information

Name *

Company *

Email Address *

Telephone *

Email Details

Enter which CPC seminar(s) you are interested in

Replace logo

NGS GreenSpec supporting CLP

As presented to AECB Annual Conference Friday 29th June 2007