

Solar shading and energy saving *where now?*

We talk to BBSA Technical Committee Chairman Dave Bush



Dave Bush

Hopefully most people in the industry know about the BBSA's Shade Specifier initiative. Even if not in great detail, they are aware that it illustrates the cost and energy saving benefits of correctly specified solar shading in buildings. Dave Bush comments, "The BBSA Technical Committee was tasked with amassing the data to support the project. We are now moving to the marketing phase to promote the concept that the most productive solar shading occurs when you have both internal and external blinds at the same window and to use this to sell more blinds."

"Man has used shading to keep buildings cool and insulation to preserve heat since we walked the earth, and why? Because it worked! But "working" is not enough, the benefit needs to be established and this is all that Shade Specifier has set out to do – its been a long journey but we are now moving to the interesting part; taking all the technical evidence and creating simple examples and case studies of just what the humble blind can do."

Dave is certainly aware of both the problems and opportunities that arise trying to convince architects, services engineers and the construction industry generally of the correct specification of solar shading.

"Quite simply" he says "we have to overcome restrictive incentives, regulation, misinformation and provide proof."

Incentives

The percentage based fee structure for consultants in construction is strongly biased towards commission, so contractors are more likely to go for the high commission, higher cost price option of, say, over specifying air conditioning rather than using blinds to reduce the load which is a relatively low capital expenditure.

Fact:

Effective solar shading can reduce the need for artificial cooling

Regulation

The current Building Regulations (Part L) place little or no emphasis on solar shading. In fact for internal blinds the benefit of any internal shading is ignored. If it's not demanded by the regulations you have an uphill struggle on your hands. This is precisely why the BBSA spent so much time submitting its response to the new building regulations.

Fact:

In the UK solar shading is not currently recognised as helping to improve a buildings heat and cooling requirements

Misinformation

The latest Government campaign "Act on CO2" encourages us to drive 5 miles less a week – a laudable aim – anything we can do to reduce emissions and a dwindling natural resource

SHADE
SPECIFIER
Registered User

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should be encouraged. BUT the buildings we live and work in are the largest polluters, not cars.

Fact:

The buildings we live and work in produce more CO₂ than any other human activity

Proof

But to get people to sit up and listen you have to prove what solar shading can do and in terms that everyone understands. To start with, this has to come from the absolute evidence produced to European Standards. To be taken seriously we have to be serious! BBSA's Shade Specifier database is produced to these exacting standards – the evidence is there for anyone to see. These figures have to be recognised as achieving the same standards of accuracy and using the same performance parameters as those used by the heavily funded and politically active glazing industry. The challenge now is to take this technical information and make it more meaningful!

Dave continues, "The next stage is that the Shade Specifier database will be launched before Showcase 2010. Companies that have had their fabrics' performance validated will feature on a world leading database that conforms to both European and American standards enabling direct comparison to the figures produced by the glazing industry database.

Following the launch of the database the BBSA Marketing Committee will take the project forward with a campaign of simple to understand explanations of the concept. Over 40% of total energy usage is not in cars or planes it is in the buildings that we live and work in. Effective shading could reduce the heat and cooling loads in buildings by as much as 15%. That is a tremendous figure but will only be appreciated with easily understood messages.

Fact:

The Shade Specifier database is the most advanced in Europe

There will also be a campaign to persuade consultants to include shading in the building services package.

To also help deliver the campaign the BBSA has recently acquired funds for a full-time postgraduate student to work on Shade Specifier for the next three years. Affiliated to the London South Bank University, they will work on simulation and will help simplify the science of shading to educate the industry and the wider market

"Everyone in the blind industry, specifiers and the consumer has to understand the benefits," says Dave. "Even without the effect on the environment which the world is finding difficult to come to terms with, in reality the price of fuel will rise substantially as generating capacity declines and will probably double in the next 18 months... It is therefore vital that we promote our low cost, proven technology that will control energy use. "Who knows, one day we may see two blinds at every window."

When we do it will be due in part to the work of the BBSA Technical Sub-Committee whose members are Steve Birtles, Stuart Dantzig, Martin Dibben, Mathew Garnett, Richard Keen, Nigel Sharrock, Paul Wellington, Andrew Chalk, Mick Hutchins as well as Dave Bush.