

Statement On The Green Guide From BRE Global And The Construction Products Association

Since the launch of the revised and updated version of BRE's Green Guide (owned by the BRE Trust) in June 2008, it has become clear that it has made much more impact in the marketplace than its predecessors.

This is partly because the Green Guide is referenced in the Government's Code for Sustainable Homes (CSH) and also because of the increasing profile of sustainability in all construction issues. Significantly, the CSH has a mandatory credit ensuring that no dwelling has more than two E rated elements, therefore requiring all new dwellings to be fully assessed if they wish to obtain a CSH rating.

With this increasing use comes increasing responsibility. Both BRE and the [Construction Products Association](#), which co-ordinated the manufacturers' input to the revision of [the Green Guide](#) over the last two years, have become aware of market trends which are worthy of comment. It is important that users of [the Green Guide](#) have a proper appreciation of what it is and also what it is not, as well as some understanding of how it works. Without this basic knowledge there are risks that users will simply use it as a tick box activity and not look more carefully and holistically at the Green Guide itself, the CSH and [BREEAM](#) within which it sits.

Both the CSH and [BREEAM](#) are non-prescriptive systems that focus on the whole building's overall sustainability performance. For the embodied impacts of materials, both the CSH and [BREEAM](#) use the Green Guide as the means to rate materials for credits. [The Green Guide](#) is based on ISO methodologies for life cycle assessment that look at the whole life cycle of materials from extraction (cradle) to end of life (grave). It considers 13 different criteria, including global warming, water consumption, resource extraction and effects on ecosystems, which are weighted and added up to give a score (EcoPoints). There is a range of choices within ISO, including an option to look at future uses where recyclability (cradle-to-cradle) rather than recycled content has a greater emphasis, which can produce significantly different results. No choice is 'more right' than any other but the selected interpretation should be transparent and based on the goal and scope of the study.

[BRE's Environmental Profiles Methodology](#), on which the Green Guide is based, was developed with the involvement of the [Construction Products Association](#) and many materials trade associations during the late 1990s before the first version was published. Further extensive consultation on this with the Construction Products Association and others over the past four years has led to the update of the Environmental Profiles Methodology and the launch of the online Green Guide. It is important to note that if different criteria and/or weightings are used in any methodology then the relative performances of materials or products could change to a considerable degree.

The Green Guide gives relative performances of various building elements and so a common methodology has to be used throughout. It looks at a range of materials or products used in a number of elements (such as walls, floors, and roofs) and assesses their overall impact, over a 60 year study period, in EcoPoints. It then takes the overall impact of the best and the worst results for a particular element and building type, and divides the gap between them into six equal bands, E to A+. The other results are then fitted into these bands. This is why there can be uneven distributions of scores, with some elements having most in the A and A+ bands whereas other elements may have a more even spread.

For some elements, such as separating walls, windows or commercial floor construction, the difference between the best (A+) and the worst (E) is relatively small in absolute terms with an E rating having approximately two to three times the impact of an A+ rating and the range being about 0.5 EcoPoints/m². In other elements, such as roofing or surfacing for heavily trafficked areas, the range is more than 1.5 EcoPoints/m² and an E can be over four times worse than an A+.

Specifying materials or products solely on one criterion, such as embodied carbon or recycled content, can lead to sub-optimal overall sustainability choices. Specifiers must understand that the embodied environmental impacts, as measured in the Green Guide, are only a part of (and not the same as) the overall sustainability of a building as measured in BREEAM and the CSH. Materials or products not getting A or A+ ratings in the Green Guide can still be, and already are, part of buildings achieving high levels in the CSH or BREEAM. The total amount of credit available, based on the Green Guide, within CSH for "Mat 1: Environmental Impact of Materials" is 4.5% and for BREEAM Offices 2008 it is 4.16%.

The Construction Products Association and the BRE Trust Group would like to move towards a system where the scores of each material/product are added up at the whole building level, rather like energy performance, ideally through the CAD system. This could be done using the EcoPoints system that underlies the Green Guide. The BRE Trust's Invest system offers such an approach but further work is required before it fully addresses these needs.

The Green Guide is available online at <http://www.thegreenguide.org.uk/>