Briefing Paper

Green Guide to Specification, Certified Environmental Profiles and BREEAM

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The selection and procurement of construction materials makes a major contribution to the life cycle impacts of a building across the environmental, social and economic aspects of sustainability. Much is talked about materials selection and many sources of information are available mostly at the level of an individual material. Through its built environment certification scheme, BREEAM, BRE has encouraged a more whole building level consideration of materials through the use of robust and science-based approaches during the design and procurement of buildings, infrastructure and others aspects of the built environment. The publication of a forward-looking strategy for the evaluation of construction materials in 2016 - "Strategic approach to the selection and procurement of construction materials and products" - set a longer term direction for this important area which will guide future scheme updates within the BREEAM family.

Since the early 1990s BRE has been at the forefront of the environmental assessment of the built environment with its Life Cycle Assessment (LCA) Environmental Profiles methodology and its Green Guide to Specification providing a standardised way of assessing the whole-life performance of building elements, and latterly serving as an environmental benchmarking system for proprietary construction products via BRE Global’s Environmental Profiles Certification scheme. This work has been central to the approach that BREEAM has taken in the past but much has changed over recent years. This has placed even more focus on whole building LCAs and Environmental Product Declarations (EPD).

In addition to providing an industry benchmark, Green Guide to Specification ratings also enable credits to be gained within current BREEAM schemes, such as BREEAM UK New Construction 2014. Here, the credits awarded are based on the total combined rating score for the assessed elements (wall, roof, floors, windows etc.). Additional points are available where a product with a third-party verified EPD is used within a specified generic specification.

Following the publication of the European standard for EPD for construction products based on the CEN TC 350 approach to the assessment of environmental impacts of construction works, BRE Global introduced its EN 15804 Verified EPD Scheme. This scheme verifies and issues EPD compliant with the requirements of EN 15804. This scheme has been running alongside the existing Environmental Profiles scheme since 2013.

So, what lies ahead?

Whole building LCA is increasingly accepted as the best way to assess the environmental impacts of construction works, as the specific design of the building and context of construction product installations is better taken into account. In line with this current move towards evaluating environmental performance of products at the whole building level, BREEAM’s strategy will include a process for evaluating whole building environmental impacts as well as recognising and rewarding construction products with third-party verified EPD based on the CEN TC 350 approach to the assessment of environmental impacts of construction works, and focuses on using the data contained in EPD as well as data from critically reviewed LCA studies (EN 15804 but also ISO 14025 and ISO 21930 EPD) to conduct whole-building LCA. It is expected that there will be a credit available for specifying products with EPD, separate to the credits available for the building level assessment.

This is already the case with the new Home Quality Mark (HQM) and is likely to be included in the forthcoming 2018 update to BREEAM UK New Construction as well as other updated schemes in the family. Other international building assessment schemes are likely to follow this approach over time as well where they do not already do so.
The Generic Green Guide will remain online until 2025 (2 years beyond the 2023 completion date for BREEAM UK New Construction 2014 design stage assessments) so that older projects can get the recognition required for specification choices. Certified Environmental Profiles will continue to be published on the Green Book Live (www.greenbooklive.com) and certificates will be listed for the period of their validity.

No new Environmental Profile and Green Guide applications will be taken from March 2019 onwards. This is appropriate in view of the fact that an Environmental Profile Certificate is valid for three years, and certification projects take as much as 1 year to complete. Current manufacturer and supplier clients may wish to discuss specifically their options at this point as the nature of the certification process is such that this will affect different clients in different ways due to the timing of their renewal date.

BREEAM will continue to recognise quality EPD that are both compliant to EN 15804 or ISO 21930, and third-party verified and issued according to ISO 14025 through recognising the use of products with such EPD by dedicated credit(s), and allowing the use of the EPD data within applicable building LCA tools. Product manufacturers will need to consider the environmental performance of their products through LCA studies and communicate the results through third-party verified EPD. To assist manufacturers and suppliers, BRE has developed an online assessment tool (LINA) to help companies generate LCA results in-house. LINA is a pre-verified tool, meaning the LCA modelling applied to the datasets available within the tool have been pre-verified to comply with the requirements of EN 15804. The LCA results obtained from LINA will therefore require only a minor verification check of the manufacturer data entered, using supporting evidence submitted in order to obtain a BRE Global EN 15804 EPD – an altogether quicker and more efficient process for EPD generation.
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