

2 December 2010

## **PlasticsEurope views on Building & Construction certification and rating systems**

### **BACKGROUND**

#### Sustainability in Construction

The wording “Sustainable Construction” is generally used to describe the application of sustainable development principles along the construction industry value chain. Sustainable Construction is the process of developing built environments that balance economic viability with conserving resources, reducing environmental impacts and taking into account social aspects.

Sustainability is one of the key driving factors for innovation in the construction sector and an important differentiation opportunity for plastic solutions. We back Sustainable Construction by inducing measurable positive change in the construction industry. ‘Positive change’ is the creation of solutions with better eco-profiles at lower total life cycle costs, whereas ‘measurable’ refers to performance measurement along predefined, transparent and weighted indicators respecting the complete life-cycle of buildings.

### **OUR VIEWS**

#### Green Building Ratings

Green Building certification and rating systems such as e.g. BREEAM (UK), LEED (US), HQE (France), DGNB (Germany) and other systems existing or being developed in various European and Asian countries should strongly contribute to the assessment of the sustainability of buildings by assessing a range of criteria against predefined benchmarks. Additionally, some help to make life-cycle costs of buildings transparent. PlasticsEurope supports the development and use of rating systems. They are usually based on a broad spectrum of criteria (e.g. energy efficiency, indoor air quality, recycled content, recyclability, resource use and waste) and offer therefore a more holistic view than single criteria systems such as carbon footprint.

#### Requirements for Green Building Ratings

The life-cycle of a building should be taken into account as early as possible in the planning phase. Costs, resource consumption and environmental impacts must be considered not only regarding construction, but also regarding the entire life time of a building, especially the use-phase.

In order to contribute effectively to the assessment and improvement of the sustainability of buildings, these systems must fulfil a number of criteria. These include:

- Take into consideration economic and social aspects in addition to environmental and resource depletion criteria

- Be based on life cycle assessment and eco-efficiency considerations. The whole life cycle of the products in the building context should be taken into account
- Avoid discriminating substances based on hazard criteria and follow the principles of risk assessment
- Derive the benchmarks against which performances are rated through a transparent and science-based process allowing stakeholders the possibility to comment
- Be open to new technologies and non-discriminatory with respect to the various technology options, e.g. by defining performance criteria rather than prescribing specific solutions
- Adopt an approach to recycling and to the use of recycled materials taking into account economics and eco-efficiency of the recycling process
- Adopt a view on renewable materials taking into account life-cycle assessment, eco-efficiency and social criteria
- Refrain from substance, materials or product 'black lists' , because "black lists" are usually not based on appropriate risk assessment

## Environmental Product Declarations (EPD)

An effective way of providing data on relevant eco-criteria is Type III-labels, so called EPDs. These B2B (business to business) information tools cover all relevant aspects needed for material assessment in Green Building Ratings and form an appropriate base for comparing the environmental impact of different products at the building level<sup>1</sup>. EPDs of products are only suitable for comparisons if the compared products fulfil exactly the same function. Their main purpose is to provide data towards the assessment of the building.

This approach has been fully implemented in the German DGNB system (modular EPDs used to assess the performance of the whole building) and partially in the British BREEAM system (use of LCA to assess key components such as windows).

PlasticsEurope strongly supports this development. See EPD reports for resins at <http://www.plasticseurope.org/plastics-sustainability/life-cycle-thinking/epd-reports.aspx> which can be used as key elements in the preparation of the building product EPDs. A key for further market penetration will be the Europe-wide standardisation of EPDs currently undertaken by CEN TC 350, which will serve to harmonise EPDs in terms of product category rules, and to limit industry costs in EPD creation.

## Data provision

A key for thorough building rating is the provision of eco-performance data for building materials. PlasticsEurope is continuously updating its database on the cradle-to-gate information of a range of plastics and plastic raw materials. Additionally, PlasticsEurope participates in the creation of studies assessing the performance of plastic materials towards other materials in relevant applications. We offer this information to rating scheme bodies to help build up their collection of information.

## Openness and transparency

The plastics industry is thoroughly addressing the challenges of sustainable development and offers its expertise to discuss facts on plastics and plastics products. PlasticsEurope is open for discussions with all stakeholders about the economic, ecological and social performance of plastics and strive to create transparency about plastics industry's contributions to society.

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<sup>1</sup> Environmental System Declarations (ESDs) are also being developed for construction elements, combining individual EPDs for materials with third party verified system performance data. These will be useful additions to ensuring building sustainability.