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Myndigheten för samhällsplanering,
byggande och boende

Sustainability of products – an important step to green buildings

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Swedish National Board of Housing, Building and Planning, a central government agency.

Building regulations, administration of housing and energy efficiency subsidies, spatial planning.

Construction products regulation and EC directives on energy efficiency, lifts and cableways.



ARGE conference 2011



Environmental product declarations

- A tool to describe the environmental impact through use of LCA data for the product. Based on Product Category rules, PCR.

Overview of the construction products regulation, CPR, and the current state of the standardisation.

Remember the purpose of CPR

- DG Enterprise, not Environment or Sanco



Target:

→ Enabling a single inner market for construction products by removing technical barriers to trade.

Means:

→ Creating a common technical language for description of the properties and performance of construction products.

Construction Products Regulation - sustainability added



Based on...

(55) The basic requirement for construction works on sustainable use of natural resources should notably take into account the recyclability of construction works, their materials and parts after demolition, the durability of construction works and the use of environmentally compatible raw and secondary materials in construction works.

(56) For the assessment of the sustainable use of resources and of the impact of construction works on the environment Environmental Product Declarations should be used when available.

CPR annex 1, BWR 3

Hygiene, health and the environment



The construction works must be designed and built in such a way that they will, throughout their life cycle, not be a threat to the hygiene or health and safety of workers, occupants or neighbours, nor have an exceedingly high impact, **over their entire life cycle**, on the environmental quality or on the climate during their construction, use and demolition, in particular as a result of any of the following...

CPR annex 1, BWR 7

Sustainable use of natural resources



The construction works must be designed, built and demolished in such a way that the use of natural resources is sustainable and in particular ensure the following:

- (a) reuse or recyclability of the construction works, their materials and parts after demolition;
- (b) durability of the construction works;
- (c) use of environmentally compatible raw and secondary materials in the construction works.

CPR article 3



1. The basic requirements for construction works set out in Annex I shall constitute the basis for the preparation of standardisation mandates and harmonised technical specifications.

Dangerous substances?



Key political issue.

Article 6.5

The information referred to in Article 31 or, as the case may be, in Article 33 of (*REACH*), shall be provided together with the declaration of performance.

Basically substances on the candidate list.

Development of this issue



Article 67

1. By 25 April 2014, the Commission shall assess the specific need for information on the content of hazardous substances in construction products and consider the possible extension of the information obligation provided for in Article 6(5) to other substances, and shall report thereon to the European Parliament and to the Council. In its assessment, the Commission shall take into account, inter alia, the need to ensure a high level of protection of the health and safety of workers using construction products and of users of construction works, including with regard to recycling and/or reuse requirements of parts or materials.

Adding up...



The national building regulations are the starting point, what information do we need about the construction products?

- Mandate
- Harmonised standards
- Sustainability information in the declaration of performance
- DoP may become a tool for assessment of sustainability of construction products

Sustainable building



Sustainable building conferences creating global consensus

- From durability of bricks in 2000 to speaking the same language in 2011
- Swedish Green building council founded in 2009 on small scale, now 182 members
- Working with four different systems for environmental performance of buildings: LEED, BREEAM, GreenBuilding, national

Green building systems



Driven by commercial interests today, tools for new and existing buildings

- Less environmental impact of buildings
- Knowledge about condition of the building
- Sustainable society
- Co-operation in development of certification schemes
- Communicative tools
- Profitability and increase of property value

What factors are taken into account?



Depending on the system...

- Energy (e.g. sources of energy, energy efficiency)
- Indoor environment (e.g. noise, ventilation, thermal climate and radon)
- Materials and chemicals (documentation of chosen products and avoiding dangerous substances)

Pieces of a puzzle



Most factors in these schemes regard how the products are assembled into a building.

However the whole image of the puzzle cannot be seen clearly without all its pieces.

Environmental declarations of construction products provide some of this information.

Even though not required today, they will probably be in some form in the future.



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