

# ENVIRON- MENTAL PRODUCT DECLARATION

of the Zumtobel Group

**acdc**

THORN

TRIDONIC

 **ZUMTOBEL**

**EPD –  
A LIFE CYCLE  
ASSESSMENT  
AT THE PRODUCT  
LEVEL**

An EPD (Environmental Product Declaration) describes a product (luminaire or component) with respect to its environmental impact based on life cycle assessments, which in turn are generated based on the international standards ISO 14015 and EN 15804. An EPD consequently provides quantitative statements as to

what impact a product has on the environment, thus representing a tool to compare and evaluate products with similar functions. EPD can be used to support the selection and specification of products for the construction of sustainable buildings and their certifications.

# **APPROACH AND OPERATING PRINCIPLE OF AN EPD**

When generating an EPD, a life cycle assessment is made at the product level. This means determining in detail which environmental impact is caused throughout the entire life cycle of a specific product, starting with the sourcing of raw materials, to converting them into components and the finished product, its transport to the site of operation, during

the period of operation and finally the product's disassembly and disposal. For this purpose, ecological parameters such as energy and water consumption or CO<sub>2</sub> emissions are allocated to the above-mentioned phases of the product life cycles from a neutral database created by independent scientific institutes, and then added up. The result represents

the ecological footprint of the respective product and, already during the planning phase, enables a comparison of different products which have similar functions in their application (e.g. illuminating a workplace) regarding their overall impact on the environment.

# **INTRODUCTION OF THE EPD SYSTEM IN THE ZUMTOBEL GROUP**

The Zumtobel Group identified early on the need to provide the different stakeholders with a comprehensible presentation of the environmental impact of products based on a standardised procedure. Therefore, the first EPD were already generated in 2009 in a pilot study and in cooperation with an external software and database company as well as the programme holder "Institut Bauen und Umwelt" (IBU).

Due to the wide variety and continuous expansion of the product range, a system enabling the automated generation of EPD for products of the Zumtobel, Thorn and Tridonic brands was initiated. All EPD must meet the normative requirements and be verified by a programme holder. For this purpose, a process structure for compliance with EN ISO 14025 and ISO 15804 was implemented and audited by the programme holder. As a result, the Zumtobel Group now has the option to

generate EPD independently. A regular update of life cycle assessment data, an adaptation of the system to the applicable standards and an annual system audit are required to maintain this status.

Since the introduction of the system, the Zumtobel Group generated nearly 4,000 EPD, which are available for download online on the respective product pages or are generated on a project-by-project basis.



Presentation of EPD at Light + Building 2012  
(left to right: Harald Sommerer, Hans Peters, Stefan von Terzi)

