

ARMACELL SETS NEW STANDARDS FOR THE INSULATION INDUSTRY

Armacell is setting new standards for the FEF technical insulation industry and defining the role of Environmental Product Declarations for the insulation market and for safe and energy-efficient green buildings.

By Diana Negrea, Armacell

Armacell is the first manufacturer of elastomeric insulation materials (flexible elastomeric foam, FEF) to present Environmental Product Declarations (EPDs) based on an independent lifecycle assessment (LCA). EPDs are internation-



ally accepted ISO Type-III ecolabels that disclose the environmental performance of products based on the LCA method. Unlike other environmental labels that signify “green” performance, an EPD discloses the full story of a product’s direct environmental impact.

Armacell has yet again raised the standards of the FEF technical insulation industry while sending a clear message to the market:

» With the Environmental Product Declarations, we create a unique degree of transparency for our Armaflex® products. We provide architects, specifiers, and those inviting tenders with reliable information for designing sustainable building projects. At the same time, we commit ourselves to continuing to improve the environmental friendliness of our products, thus sharpening our competitive edge. «

Patrick Mathieu, President and CEO of Armacell

Environmental Product Declarations are based on independent lifecycle assessments

EPDs rely on LCAs, which provide systematic and standardized data for an ecological assessment of a building in the “modular construction system.” In an LCA, the entire life of the building, the building phase with possible conversions, as well as demolition and disposal are taken into consideration.

Armacell received support in the analysis of several thousand datasets from PE International (now thinkstep), which is the market leader in strategic eco-consulting, software solutions, and comprehensive services in the field of sustainability. Comparing the primary energy input identified in Armacell’s product LCAs with the energy savings achieved, it shows that using Armaflex insulation materials saves about 140 times more energy than is needed for their manufacture, transport, and disposal. The energy input needed to manufacture Armaflex pays off in just 50 days.

As an LCA can only provide very specific information about an individual manufacturer’s products, the results cannot simply be transferred to the products of other FEF manufacturers. Deviations in the raw materials used or the production process, as well as the very different manufacturing footprints of the providers, have a significant impact on the data.

Environmental Product Declarations serve as a “sustainability passport” for insulation materials

The construction industry has huge potential for improving energy efficiency and reducing greenhouse gas impacts through innovative products and solutions. One of the most significant opportunities in this area is in high-tech insulation products. Optimal technical insulation is the simplest, fastest, and most cost-effective measure for improving energy efficiency in industrial, commercial, and residential infrastructures.

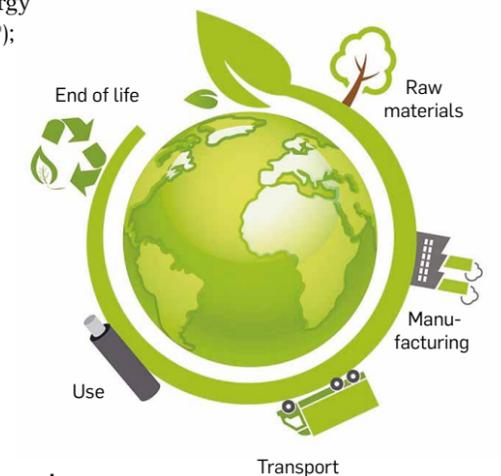
Armacell’s EPDs, certified by the Institute for Construction and Environment (IBU) in Europe and the Underwriters Laboratories in Asia, not only make statements about the primary energy requirements but also contain information about the extent to which the products contribute to the greenhouse effect, acidification, over-fertilization, depletion of the ozone layer, and smog. With this unprecedented transparency for the FEF technical insulation market, the EPDs serve as a “sustainability passport” for insulation materials and ensure that green buildings are designed in accordance with the following certification schemes: Leadership in Energy and Environmental Design (LEED®); the Building Research Establishment Environmental Assessment Methodology (BREEAM); the French certification HQE, which is awarded to building construction and management; and the German Sustainable Building Council (DGfNB). With this initiative, Armacell is supporting the development of green city-building and encouraging responsible construction in the 21st century.

The role of Environmental Product Declarations for the insulation market

Demand for EPDs is growing in response to changes in green building guidelines and design practices. The US Green Building Council’s LEED® green building program is now placing emphasis on lifecycle-based environmental reporting and transparency, rewarding points for use of products with EPDs and LCAs as part of the Material and Resources Credits. The top 10 countries outside of the United States for LEED-certified green buildings that made the list for 2015 are geographically and culturally diverse, representing seven of the world’s twenty largest economies by gross domestic product: China, Germany, Brazil, India, Canada, South Korea, and Turkey. Although Canada tops the list, Brazil and the Republic of Korea have

moved up in the rankings, and Turkey and Sweden are new to the top 10 this year.

EPDs are suitable as proof of environmental claims in the public procurement arena and offer the relevant data on environmental properties of a product for sales and marketing purposes. They include statements on the use of energy and resources and the extent to which a product contributes to the greenhouse effect, acidification, eutrophication, destruction of the ozone layer, and smog formation. In addition,



details are given about the technical properties, which are required for assessing the performance of the building products in the building, such as durability, heat and sound insulation, or the influence on the quality of the indoor air.

The ISO Type-III EPDs for insulation products are directed at many target groups with regard to these qualitative statements about the environmental performance of building products: planners, architects, building companies, real estate companies, facility managers, and, of course, the companies that are involved in manufacturing and serving the supply chain — from raw materials to the building itself. ■