



Building a **SUSTAINABLE** future together

MAPEI GOING TRANSPARENT WITH THE RELEASE OF EPDs

IMPACTS TO THE ENVIRONMENT FROM CONSTRUCTION PRODUCTS

We often hear the word “Carbon” today in the field of sustainable construction. This is because the concentration of carbon-based gases, specially carbon dioxide (the most rampant and dangerous greenhouse gas (GHG)) in the atmosphere has been constantly rising and is continuing to be recorded at the highest levels (1).

According to a report published by the United Nations in 2019, the building and construction industry together are responsible for almost 40% percent of all carbon emissions, with ‘upfront’ carbon emission associated with materials and construction process accounting for 11% (2). In addition to the emission of greenhouse gases, construction materials also contribute to number of other environmental impacts. Emissions of acidifying substances to the air which affects pH levels of rainfall, anomalous growth of aquatic organisms, such as algae, due to a decrease in the density of aquatic fauna (Eutrophication), the reduction in the thickness of the ozone layer and the depletion of natural resources are a few examples (3).



Image 1 - Impacts to the environment from products (4)

WHAT IS AN EPD?

In order to reduce or completely neutralise impacts to the environment throughout the life cycle of a product, it is necessary for manufacturers to analyse and put a measurement to these first. An Environmental Product Declaration (EPD) does exactly that.

An Environmental Product Declaration is a complete report, prepared according to international standards (such as ISO 14025, EN 15804), that documents the effects a product has on the environment throughout its entire life cycle, by measuring these effects according to standardised LCA (Life Cycle Assessment) methods (3).

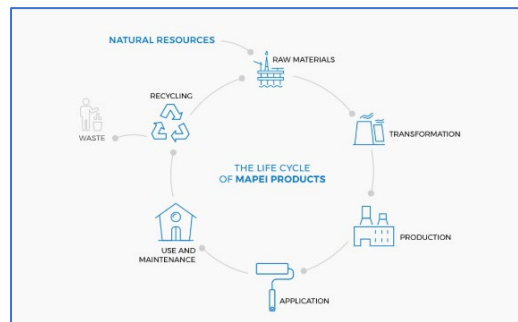


Figure 1 - Life Cycle of Mapei Products



Image 2 - Mapei EPD

Making EPDs available for products not only makes manufacturers transparent of their operations, but it also assists in creating solutions to reduce environmental impacts.

EPDs play an important role in the construction industry by helping architects and designers to compare and specify products with the least environmental impacts.

TYPES OF EPDs

There are 3 types of EPDs:

- **STANDARD EPD**

This is a product specific EPD prepared by an individual manufacturer that covers information related to the particular product.



- **AVERAGE EPD**

This EPD includes the average information of a particular range of products from a single or a number of different manufacturers and are usually published by trade associations.

- **MODEL EPD**

A model EPD includes information of range of products with the same chemical composition and application.

MAPEI IS CONTINUING TO PUBLISH EPDs FOR THEIR PRODUCTS AND ARE FINDING WAYS TO REDUCE ENVIRONMENTAL IMPACTS

A distinctive feature of Mapei, is the Group's constant commitment to maintain transparency. Alongside passion, commitment, talent and competitiveness, transparency is one of the values that continue to inspire the company's activities and indispensable qualities that builds the foundation of our communication with all our stakeholders.

Since 2016, Mapei has put this into practice by creating EPDs for more than 130 products certified according to the international Standards (5). Mapei Australia has also initiated the process to create EPDs for locally manufactured products, which we are intending to make available to our customers this year in addition to the EPDs already available for the products we import.

The creation of EPDs not only allowed the company to be more transparent, but also made it possible to find innovative ways to reduce GHG emissions such as transport optimisations by limiting road transport with trucks and favouring more widespread use of the rail network and installation of cogeneration plants and photovoltaic systems to produce in-house power to some of the company's



Image 3 – Mapei in-house energy productions

production plants (5). For further information please refer to [Mapei's Summary of 2019 Sustainably Report](#).

USING PRODUCTS WITH EPDs CAN HELP PROJECTS OBTAIN GREEN BUILDING CERTIFICATION CREDITS

Products with EPDs can contribute to sustainable project certification such as Green Star by GBCA, Living Building Challenge (LBC), LEED by USGBC and BREEAM. All available EPDs for Mapei products can be found in our website. Just search for required product and download the EPD of the product under the Related Documentation section or simply contact our technical service department.

With every green certification scheme's having different requirements, Mapei Australia's technical assistance department is dedicated to assist project teams to meet these requirements via the use of Mapei Products.

Mapei have the technology and knowledge on how to support your business in sustainable solutions. Contact us to find out more.



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- (4) MAPEI Webinar – Understanding Sustainability. 2020 <https://www.youtube.com/watch?v=OpirKhvFKBA>
- (5) Summary of the 2019 sustainability report <https://www.mapei.com/it/en/about-us/mapei-in-italy/sustainability-report>