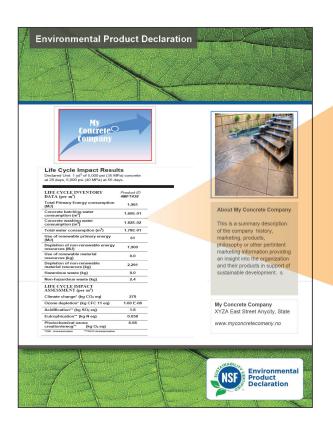


# Concrete Technology in Focus

# **Environmental Product Declaration (EPD) Service For Concrete and Concrete Products**

#### **Overview**

An Environmental Product Declaration (EPD) is an ISO 14025 Type III environmental label that presents relevant and verified environmental information about goods and services from a life cycle perspective. It is similar to a nutrition label but reports environmental impacts based on a detailed life cycle assessment. A concrete product EPD reports the cradle-to-gate environmental impacts specific to an individual concrete mixture or concrete product. The Master Builders Solutions EPD service provides a professional report that has been third-party reviewed and registered with the Program Operator.



LIFE CYCLE INVENTORY	Product IE
DATA (per m <sup>3</sup> )	4MFT438
Total Primary Energy consumption (MJ)	1,961
Concrete batching water consumption (m³)	1.60E-0
Concrete washing water consumption (m³)	1.82E-0
Total water consumption (m <sup>3</sup> )	1.78E-0
Use of renewable primary energy (MJ)	61
Depletion of non-renewable energy resources (MJ)	1,900
Use of renewable material resources (kg)	0.0
Depletion of non-renewable material resources (kg)	2,291
Hazardous waste (kg)	0.0
Non-hazardous waste (kg)	2.4
LIFE CYCLE IMPACT ASSESSMENT (per m³)	
Climate change* (kg CO <sub>2</sub> eq)	270
Ozone depletion* (kg CFC 11 eq)	1.00 E-0
Acidification** (kg SO <sub>2</sub> eq)	1.8
Eutrophication** (kg N eq)	0.058
Photochemical ozone creation/smog** (kg O <sub>3</sub> eq)	6.08

<sup>\*</sup> Reported categories in an EPD will vary based on the PCR requirements.

#### What are the benefits of creating an EPD?

Building designers and architects are more and more interested in the environmental impacts of products that they are specifying for their projects. In LEED v4 for example, an EPD supports the Materials and Resources credit for Building Product Disclosure and Optimization – Environmental Product Declarations. An EPD also can provide a value-add differentiator in the marketplace to support a concrete producer's sustainable construction initiatives.

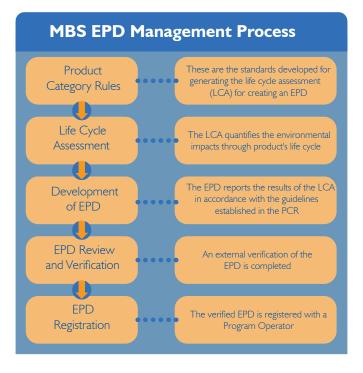
#### What does Master Builders Solutions EPD Service include?

Our team of experts will create an EPD document and provide a seamless process to completion. Master Builders Solutions manages the entire process including the detailed life cycle assessment requirements based on the specific concrete product, submission for third-party critical review and registration of the final document through the Program Operator. A final, professionally developed registered EPD will be placed on the Program Operator's website and is available through a unique URL on the producer's website.

#### How is Master Builders Solutions uniquely qualified to provide the EPD service?

Master Builders Solutions has a history of innovation and technologically advanced solutions for sustainable construction and has been conducting life-cycle assessments since pioneering the development of the third-party validated Eco-Efficiency Analysis (EEA) in 1996. Based on this technology, Master Builders Solutions has developed a unique EPD Service that is thirdparty verified for use in creating EPD for concrete and concrete products based on the specific PCR.





### Are EPD developed through Master Builders Solutions critically reviewed and registered?

Yes. EPDs completed through Master Builders Solutions EPD service are verified and registered with NSF International as the designated Program Operator.

#### Can Master Builders Solutions develop EPDs for any concrete product?

Master Builders Solutions is at the forefront of developing this EPD service based on North American PCRs for any concrete mixture or concrete product. For additional information on the Master Builders Solutions EPD Service or to begin developing EPDs for your concrete mixtures, please contact your Master Builders Solutions sales representative or visit our website at: www.master-builders-solutions.com/en-us

## **About Master Builders Solutions**

Master Builders Solutions is a leading global manufacturer of concrete admixtures, as well as other sustainable solutions for the construction industry, focussed on delivering its vision: **Inspiring people to build better.** Master Builders Solutions provides value-added technology and market-leading R&D capabilities to improve the performance of construction

materials and to enable the reduction of CO2 emissions in the production of concrete. Founded in 1909, Master Builders Solutions has ca. 1600 employees operating 35 production sites globally, supporting their customers in mastering their building challenges of today – for a decarbonised future.

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