

DEVELOPMENT OF AN ENVIRONMENTAL PRODUCT DECLARATION (EPD) FOR READY-MIXED CONCRETE – AN INDUSTRY PERSPECTIVE

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In 2013, Allied Concrete took the strategic decision to develop an Environmental Product Declaration (EPD) for its Normal ready-mixed concrete (RMC) supplied at eight compressive strengths from batching plants in the North and South Island using cement produced at Westport by Holcim Cement (30 plants).

An EPD is a concise report detailing the environmental impacts of any product or service. It is developed based on detailed product specific rules – called Product Category Rules (PCRs) – that are created through an open, consultative process with interested stakeholders. An EPD provides robust, science-based information and calculated environmental impacts based on Life Cycle Assessment (LCA), which is independently verified.

For this project, BRANZ provided management and LCA/EPD advice. Holcim Cement, as a partner in the World Business Council for Sustainable Development Cement Sustainability Initiative, had access to an independently developed and verified LCA model for clinker, cement and RMC, which was used to calculate the LCA results for the EPD. An independent reviewer based in Italy verified the LCA model and EPD.

The work was undertaken using requirements in *PCR UN CPC 375 Concrete* registered with The International EPD® System. Data for the calendar year 2013 was collected for operations at all 30 batching plants including energy and water use, mix designs, waste and transport of feedstock materials (mainly cement, aggregates and admixtures). Data for cement production at Westport was also provided by Holcim Cement, based on operations during 2013. During the data collection process, benchmarking and comparison of figures across batching plants revealed opportunities for improved efficiencies and cost savings for the business.

This presentation sets out what EPD are and the process for obtaining them, and provides an industry perspective on the experience of developing them, including opportunities that arose as a result of the process.

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