

## Overview

An EPD (environmental product declaration) is a document which may be used to quantifiably demonstrate the environmental performance of a product.

The European Standard for the generation of EPD for construction products, EN 15804, was published by the CEN Technical Committee for the sustainability of construction works (CEN TC350) in 2012.

EPD are generated based on data obtained through Life Cycle Assessment (LCA) via peer reviewed Product Category Rules document (PCR).

EPD can be fed into whole building assessment schemes, other comparative tools, and building information modelling (BIM) CAD software

## Useful standards

EN 15804. Environmental product declarations - Core rules for the product category of construction products

ISO 14025. Environmental labels and declarations — Type III environmental declarations — Principles and procedures

ISO 14040 & ISO 14044. Life Cycle Assessment.

## EPD in relation to polyester powder coating

Powder manufacturers offer EPD certification as below. There are 3 life-cycle stages and 4 areas of impact, each are broken down further but are not shown for simplicity. Polyester Powder Coating (PPC) is usually measured as Global Warming Potential (GWP) as Kg of CO2 equivalent (Kg CO2-e).

Powdertech can supply EPD specific to a manufacturer and project on request.

Lifecycle	Product stage			Construction stage		End of life	TOTAL	
	A1 Raw material	A2 Transport	A3 Manufacturing	A4 Transport	A5 Installation			
Four measured impact areas						C3 Waste	A – C TOTAL	
Environmental impact								
Water use	The 4 impact areas are further sub-divided and measured across the 6 lifecycle stages A1 to C3							
Energy use								
Waste								
Global warming potential (GWP 100) (kg CO2-e) <b>Usual PPC reference figure</b>	2.96	0.04	0.28	0.04	11.07	0.67	15.1	

Acknowledgment is made of the website of Building Research Establishment (BRE) and AkzoNobel EPD data sheet from which some information has been taken.