



Wood Plastic Composite Cladding (recycled plastic)

Environmental Information Sheet

Delivered Unit

1 m² of cladding on timber battens

OVERVIEW

This document presents environmental information on wood plastic composite (WPC) cladding made in the UK mounted on timber battens. It covers the manufacture, use and disposal of the cladding component for the stated delivered unit over a study period of 60 years.

Data on the manufacture represents typical UK production using recycled plastic.

The purpose of this document is to provide information to provide data on the environmental performance of the component in its main life cycle stages. Data is provided in tabular (characterised data) and graphical (Ecopoints and Normalised) forms. The characterised data cannot be compared across categories whereas normalised data can; Ecopoints data includes a weighting factor that helps indicate the importance of impacts in different categories.

The information presented here is based on the approach of ISO 21930 and can only be directly compared with other Environmental Information Sheets produced in this way. The data is generic and no manufacturer can make any claims about their specific product using this data.

Life cycle stage	Manufacture	Use	Disposal
Included	✓	✓	✓

Modelling Information

A wastage rate of 10% was assumed for the WPC and 8% for the battens at installation and transport to site was calculated using information from the Department for Transport's continuing Survey of Roads Goods Transport.

The component was assigned a service life of 25 years.

Disposal was modelled according to the material and lifecycle stage generating the waste: the WPC panel was assumed to go 82% to landfill, 9% to incineration and 9% recovered for use and 90% to landfill and 10% to incineration at demolition (with impacts modelled assuming that the WPC materials behaved as if disposed of separately); the timber was modelled as 8% to incineration for all stages and 72% or 75% to landfill during the use phase and 75% at demolition (the remainder being recovered for recycling).

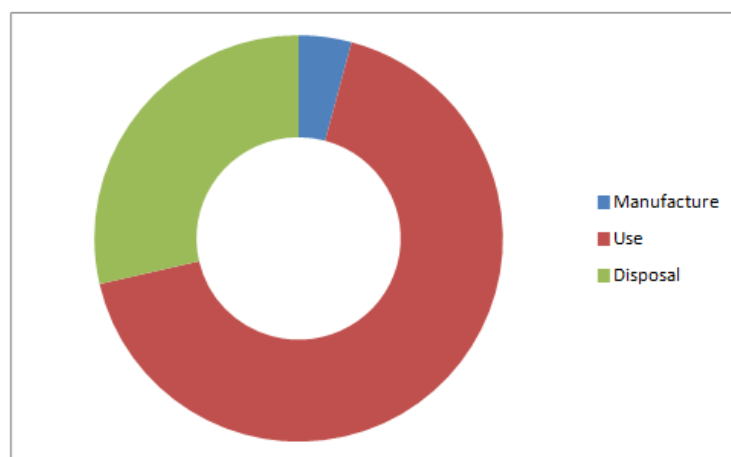
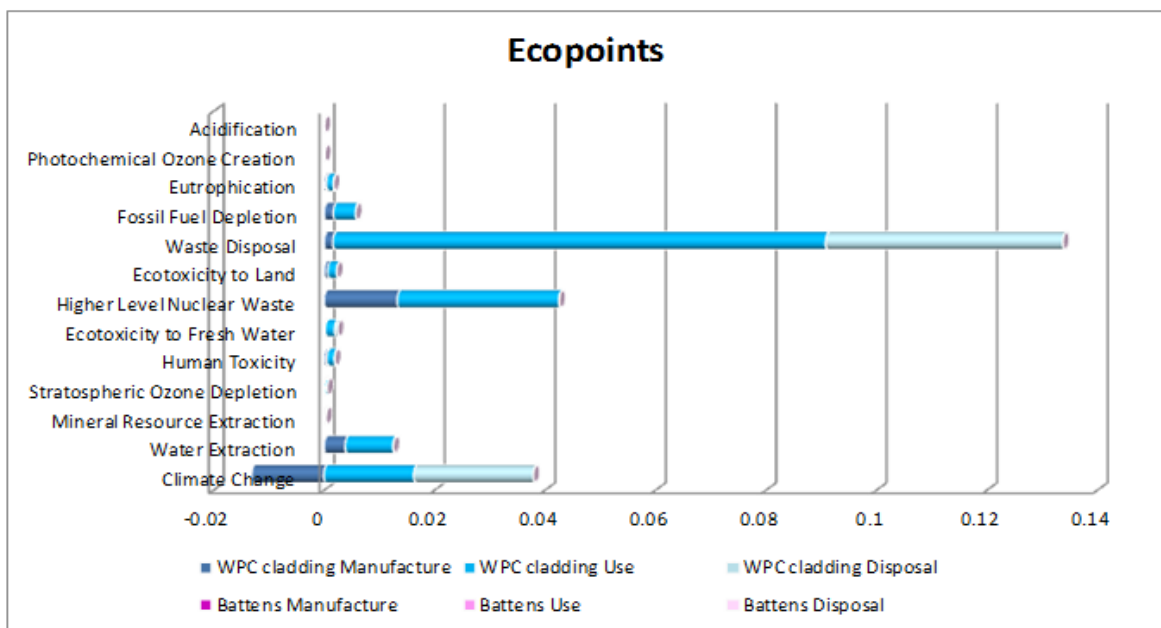
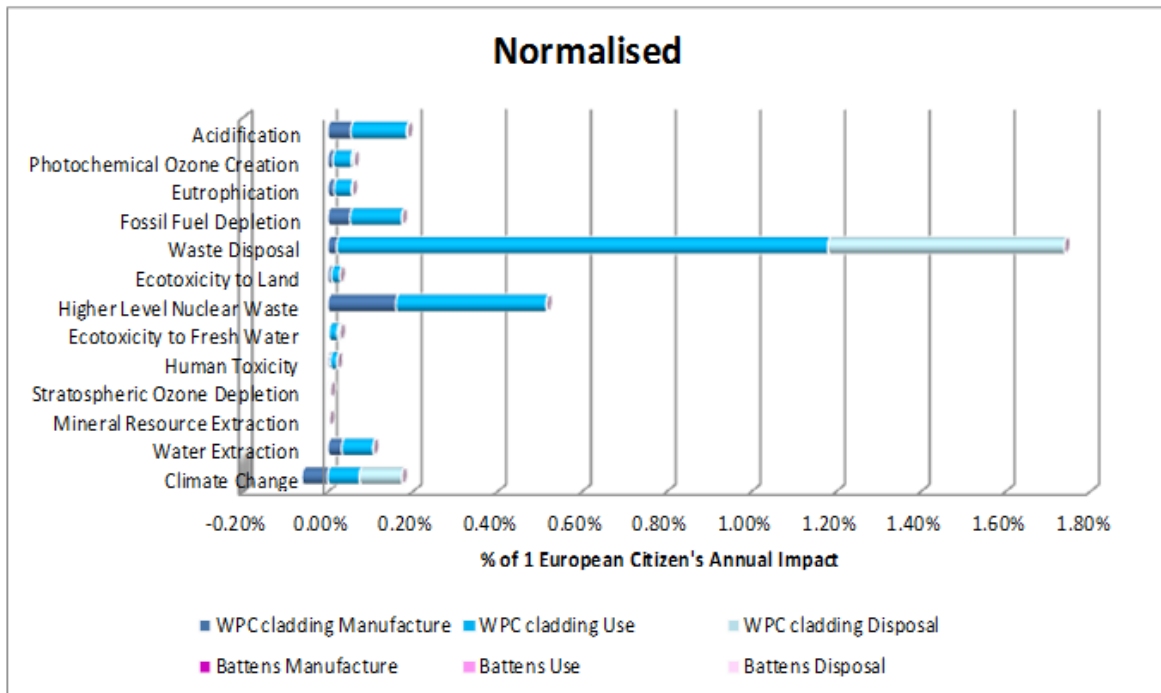


ENVIRONMENTAL INFORMATION

	Unit	Manufacture	Use	Disposal
Theme				
Depletion of non-renewable material resources	kg	0.0629	0.153	0.00689
Depletion of non-renewable energy resources	MJ	177	407	2.29
Use of renewable primary energy resources	MJ	4.71	10.5	0.0666
Consumption of freshwater	m ³	0.125	0.280	0.0026
Climate change	kg CO ₂	-7.44	9.24	12.3
Depletion of the stratospheric ozone layer	kg CFC-11	0.00000352	0.00000992	0.000000567
Formation of tropospheric ozone (photochemical oxidants)	kg ethene	0.00270	0.00925	0.00143
Acidification of land & water sources	kg SO ₂	0.0389	0.0942	0.00138
Eutrophication	kg PO ₄	0.00490	0.0133	0.000591
Waste to disposal – non-hazardous	kg	0.733	19.2	8.86
Waste to disposal – hazardous	kg	0.0567	0.151	0.0136



Graphical Representations of the Environmental Information



BioCompass

This Environmental Information Sheet was produced as part of the work of the Defra LINK project ' Sustainable Assessment to Overcome Barriers to Renewable Construction Materials – BIOCOMPASS'.

The main outputs from this project are:

1. Environmental performance information (based on the information set out in ISO 21930 and the developing CEN standards from TC 350 on the contents of Environmental Product Declarations for construction products)
2. Decision trees modelling the environmental impacts of the production, use and disposal of:
 - A cladding panel (1 m², 5 mm thick)
 - A board material (1 m² at various thicknesses)
 - A complex moulded shape (0.00077 m³)
3. A paper setting out the issues particular to the conducting of LCA studies for plant- and animal-based materials (biomaterials).

For more information, please visit the project's [website](#)

