



UK Sheep's Wool Insulation (up to 25 kg m⁻³)

Environmental Information Sheet

Functional Unit

1 m² of insulation with sufficient thickness to provide a thermal resistance value of 3 m²K/W

OVERVIEW

This document presents environmental information on sheep's wool insulation made in the UK. It covers the manufacture, use and disposal of the insulation for the stated functional unit over a study period of 60 years.

Data on the manufacture (cleaning, treating and bonding) represents 100% of UK production.

The purpose of this document is to provide information on the environmental performance of the material in its main life cycle stages. Data is included in tabular (characterised data) and graphical (Ecopoints and Normalised data from BRE Global's Environmental Profiles Methodology) 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 has used BRE's Environmental Profiles Methodology and is based on the approach of ISO 21930 and the emerging standards from CEN TC 350. The contents 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 5.25% was assumed for installation and transport to site was calculated using information from the Department for Transport's continuing Survey of Roads Goods Transport.

The product was assumed to last for the entire 60-year study period without any replacements or change in thermal properties.

End of life disposal is entirely by landfill (typical UK practice) using timber as a proxy; the impacts associated with the loss of chemical treatments or residual pesticides from sheep production were not modelled as data was not available to represent these aspects.

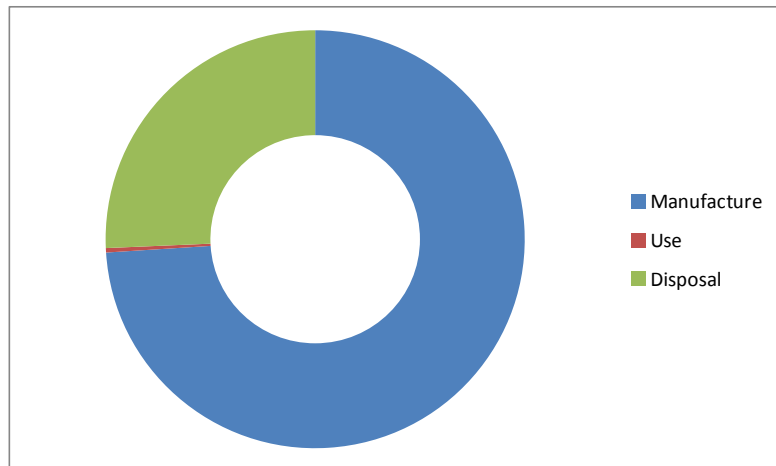
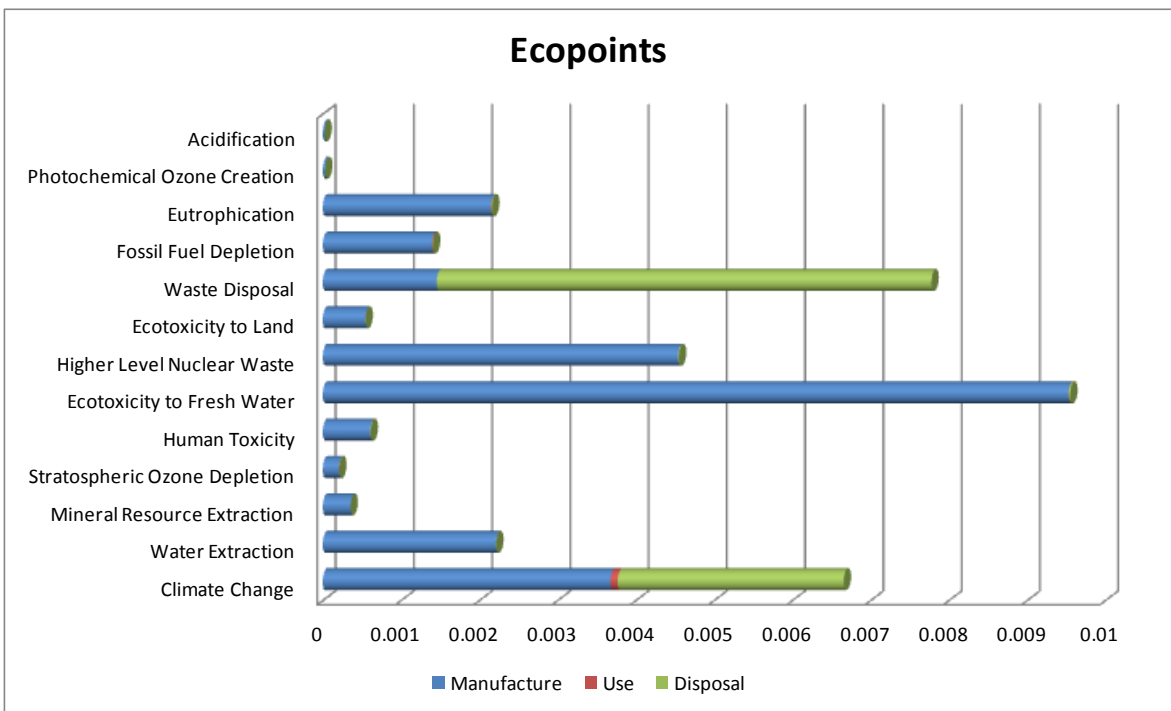
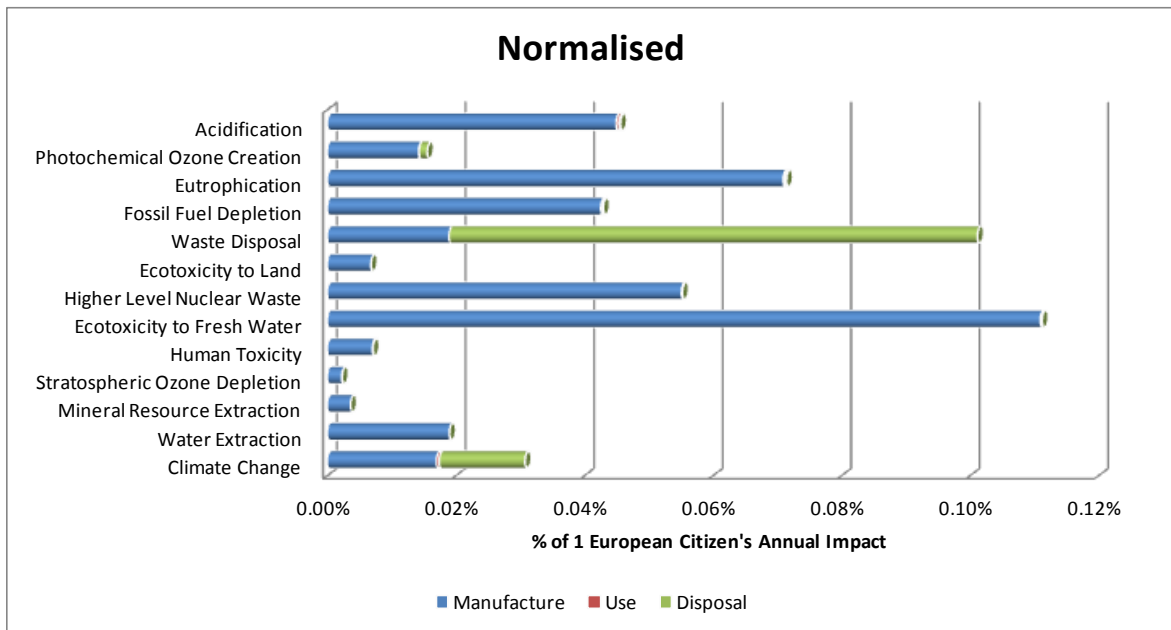


ENVIRONMENTAL INFORMATION

Theme	Unit	Manufacture	Use	Disposal
Depletion of non-renewable material resources	kg	0.794	0.000062	0.000119
Depletion of non-renewable energy resources	MJ	135	0.692	0.373
Use of renewable primary energy resources	MJ	2.32	0.000169	0.00971
Consumption of freshwater	m3	0.072	0.0000653	0.0000590
Climate change	kg CO2	2.09	0.0536	1.64
Depletion of the stratospheric ozone layer	kg CFC-11	0.00000488	0.0000000530	0.0000000763
Formation of tropospheric ozone (photochemical oxidants)	kg ethene	0.00306	0.0000241	0.000267
Acidification of land & water sources	kg SO2	0.0321	0.000306	0.000170
Eutrophication	kg PO4	0.0230	0.0000693	0.000102
Waste to disposal – non-hazardous	kg	0.000121	0.00000000423	0.000462
Waste to disposal – hazardous	kg	0.0000332	0.0000000134	0.0000000134



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](#)

