

Appendix to Certificate of Verification

Appendix Number: ENP521a Issue: 1

DOW Chemical Company Ltd
 Diamond House
 Lotus Park, Kingsbury Crescent,
 Staines
 Middlesex, TW18 3AG



Characterised and normalised data for:

Insulation: Insulation

Dow Xenergy SL extruded polystyrene (XPS)
 insulation with carbon dioxide blowing agent, 0.032
 W/mK, 34 kg/m³

1 m² over 60-year study period

Quality of data for profiled material

Start date	11/1/2014
End Date	7/31/2015
Representativeness	1 site representing 100% production
LCA Methodology	BRE Environmental Profiles Methodology 2008
Allocation	100% to product
Date of data entry	4/11/2016
Boundary	Cradle to Grave over 60-year study period
Applicable buildings	All Building Types
Source of data	Company records
Geography	UK

(Data for other constituent materials are available from BRE Global)

BRE Ecopoints score: 0.0467 Ecopoints

This certificate appendix is maintained and held in force through annual review and verification.

Signed for BRE Global Ltd.

Laura Critien
 Certification Scheme Manager

22 April 2016
 Date of Issue

21 April 2019
 Expiry Date



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Insulation: Insulation

Dow Xenergy SL extruded polystyrene (XPS) Insulation with carbon dioxide blowing agent, 0.032 W/mK, 34 kg/m³
1 m² over 60-year study period

Characterised Data

Issue	Value	Unit
Climate Change	13.8	kg CO ₂ eq (100 yr.)
Water Extraction	0.16	m ³
Mineral Resource Extraction	0.000175	tonnes
Stratospheric Ozone Depletion	0.0000233	kg CFC11 eq.
Human Toxicity	1.78	kg 1,4-DB eq.
Ecotoxicity to Freshwater	0.0499	kg 1,4-DB eq.
Nuclear Waste (higher level)	0.00000000611	m ³ high level waste
Ecotoxicity to Land	0.0114	kg 1,4-DB eq..
Waste Disposal	3.81	kg
Fossil Fuel Depletion	306	MJ
Eutrophication	0.00774	kg PO ₄ eq.
Photochemical Ozone Creation	0.0226	kg ethene eq.
Acidification	0.0789	kg SO ₂ eq.

Normalised data

Issue	Value	Western European Citizen's Annual Impacts
Climate Change	0.00112	12300 kg CO ₂ eq (100 yr.)
Water Extraction	0.000422	378 m ³
Mineral Resource Extraction	0.00000719	24.4 tonnes
Stratospheric Ozone Depletion	0.000107	0.217 kg CFC11 eq.
Human Toxicity	0.0000903	19700 kg 1,4-DB eq.
Ecotoxicity to Freshwater	0.0000379	1320 kg 1,4-DB eq.
Nuclear Waste (higher level)	0.000258	2.37 x 10 ⁻⁵ m ³ high level waste
Ecotoxicity to Land	0.0000925	123 kg 1,4-DB eq..
Waste Disposal	0.00102	3750 kg
Fossil Fuel Depletion	0.00112	273 GJ
Eutrophication	0.000238	32.5 kg PO ₄ eq.
Photochemical Ozone Creation	0.00105	21.5 kg ethene eq.
Acidification	0.00111	71.2 kg SO ₂ eq.

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