

## Appendix to Certificate of Approval

Appendix Number: ENP500am Issue: 3

**Kingspan Insulation Ltd**  
 Pembridge  
 Leominster  
 Herefordshire  
 HR6 9LA



### Characterised and normalised data for:

#### Insulation: Insulation

Kingspan Kooltherm K106 (0.018 W/m.K) with 50lb duplex foil facer on one side with a polypropylene fleece on the other side - 35 kg/m<sup>3</sup>

1 m<sup>2</sup> over 60-year study period

#### Quality of data for profiled material

Start date	01/01/2015
End Date	31/12/2015
Representativeness	2 sites representing 100% production
LCA Methodology	BRE Environmental Profiles Methodology 2008
Allocation	100% to product
Date of data entry	13/06/2017
Boundary	Cradle to Grave over 60-year study period
Applicable buildings	All building types
Source of data	Company records
Geography	UK and Ireland

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

#### BRE Ecopoints score: 0.0245 Ecopoints

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

Signed for BRE Global Ltd.

Emma Baker  
 Scheme Manager

28 July 2017  
 Date of Issue

27 July 2020  
 Expiry Date



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### Insulation: Insulation

Kingspan Kooltherm K106 (0.018 W/m.K) with 50lb duplex foil facer on one side with a polypropylene fleece on the other side - 35 kg/m<sup>3</sup>

1 m<sup>2</sup> over 60-year study period

### Characterised Data

Issue	Value	Unit
Climate Change	5.36	kg CO <sub>2</sub> eq. (100 yr.)
Water Extraction	0.0661	m <sup>3</sup>
Mineral Resource Extraction	0.000587	tonnes
Stratospheric Ozone Depletion	0.00000397	kg CFC11 eq.
Human Toxicity	1.93	kg 1,4-DB eq.
Ecotoxicity to Freshwater	0.131	kg 1,4-DB eq.
Nuclear Waste (higher level)	0.00000000784	m <sup>3</sup> high level waste
Ecotoxicity to Land	0.0191	kg 1,4-DB eq.
Waste Disposal	2.35	kg
Fossil Fuel Depletion	130	MJ
Eutrophication	0.00463	kg PO <sub>4</sub> eq.
Photochemical Ozone Creation	0.0151	kg ethene eq.
Acidification	0.0334	kg SO <sub>2</sub> eq.

### Normalised data

Issue	Value	Western European Citizen's Annual Impacts
Climate Change	0.000436	12300 kg CO <sub>2</sub> eq. (100 yr.)
Water Extraction	0.000175	378 m <sup>3</sup>
Mineral Resource Extraction	0.0000241	24.4 tonnes
Stratospheric Ozone Depletion	0.0000183	0.217 kg CFC11 eq.
Human Toxicity	0.0000979	19700 kg 1,4-DB eq.
Ecotoxicity to Freshwater	0.0000995	1320 kg 1,4-DB eq.
Nuclear Waste (higher level)	0.000331	2.37 x 10 <sup>-5</sup> m <sup>3</sup> high level waste
Ecotoxicity to Land	0.000155	123 kg 1,4-DB eq.
Waste Disposal	0.000627	3750 kg
Fossil Fuel Depletion	0.000476	273 GJ
Eutrophication	0.000143	32.5 kg PO <sub>4</sub> eq.
Photochemical Ozone Creation	0.000701	21.5 kg ethene eq.
Acidification	0.000468	71.2 kg SO <sub>2</sub> eq.

**BRE Ecopoints score: 0.0245 Ecopoints**

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Emma Baker

Scheme Manager

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