

<p>1 Conditions of use</p>	<p>1 Application The assessment and certification of BreatherQuilt relate to the use of the product in dwellings and buildings with similar temperature and humidity conditions and correctly detailed tiled or slated pitched roofs with a slope of no less than 20° and no more than 70°, designed and constructed in accordance with the relevant clauses of BS 5534². BreatherQuilt shall not be exposed to organic solvents or plasticisers.</p> <p>2 Assessment Kiwa BDA Testing^{*)} has assessed the thermal performance of the product according BS -EN 16012 (BS EN 12667). The hemispherical emissivity has been assessed according BS EN 16012, Annex D and the characteristic properties according BS EN 823, BS EN 1848-2, BS EN 1602, 1604 and 1608, BS EN 12310-1 and BS EN ISO 12572. <i>*) CPD Notified Laboratory Nr. NB 1640; Testing Accreditation RvA L 447 (acknowledged by UKAS)</i></p> <p>3 Installation It is recommended that the quality of installation and workmanship is controlled by an independent competent inspector. This inspector can be either a qualified employee of the specifier or a qualified employee of a consulting engineer. The product shall be installed strictly in accordance with the instructions of the Certificate holder and the requirements of this Certificate.</p> <p>4 Geographical scope The validity of this document is limited to England, Wales, Scotland and Northern Ireland, with due regard to section 11. Regulations.</p> <p>5 Validity The purpose of this BDA Agrément[®] is to provide for well-founded confidence to apply BreatherQuilt in the described applications and according to approved specifications. According to the BDA Guideline – BDA Agrément^{®1} the validity of this document is therefore three years after the official date of issue, published on www.bda.nl. After this the validity can be extended every three years after positive review.</p>																																																
<p>2 Frame of reference</p>	<ol style="list-style-type: none"> 1 BDA Guideline – BDA Agrément[®], 15th October 2014 2 BS 5534:2003+A1:2010 Code of practice for slating and tiling (including shingles) – Installation 3 BS 5250:2011 Code of practice for control of condensation in buildings 4 BS EN ISO 6946: 2007 Building components and building elements -Thermal resistance and thermal transmittance - Calculation method 5 BR443: Conventions for U-value calculations, 2006 edition, BRE Scotland 6 BDA Report 0327-C-13/2, BreatherQuilt: Determination of product characteristics (initial type testing), 2015.03.19 7 BDA Report 0327-C-13/3 BreatherQuilt: Determination of thermal resistance (initial type testing), 2015.03.19 8 BDA Agrément[®] + Kiwa Certificate BAR 12-454/01/C, 2012.07.25 9 BDA-Kiwa report: Technical Documentation, containing information to demonstrate the conformity of the product to the applicable requirements of BDA Agrément[®] + Kiwa Certificate BAR 12-454/01/C 10 BBA Information Bulletin No. 3: Reflective foil Insulation – Conventions for U-value calculations, March 2010 11 BS EN 16012: 2012 Thermal insulation for buildings – Reflective insulation product – Determination of the declared thermal performance 12 NHBC Standards, Chapter 1, Technical Requirement R3 and Chapter 7.2 Pitched Roofs 13 Kiwa Guideline K22005, 15th January 2015 14 Kiwa Certificate KGaC 2006 GB, 2012.07.25, Kiwa Ltd., Cheltenham, UK 15 BDA Report 14-B-0367/1 BreatherQuilt: Calculation of 90/90 values of the core and emissivity, 2015.03.20 <p>Remark: in the text of this document reference is made to these sources by adding the relevant reference number in superscript</p>																																																
<p>3 Independently verified product characteristics related to critical functions*</p>	<p>^{*)} The critical functions which apply to this section are the behaviour in relation to thermal insulation, fire and durability, as mentioned in R3(a) of the NHBC Standards¹²</p> <table border="0"> <tr> <td>• nominal length</td> <td>: 10.00</td> <td>(m)</td> </tr> <tr> <td>• nominal width</td> <td>: 1200</td> <td>(mm)</td> </tr> <tr> <td>• nominal thickness</td> <td>: 40</td> <td>(mm)</td> </tr> <tr> <td>• nominal mass</td> <td>: 0.70</td> <td>(kg.m⁻²)</td> </tr> <tr> <td>• thermal performance core R_{90/90}¹⁵</td> <td>: 1.166</td> <td>(m².K.W⁻¹)</td> </tr> <tr> <td>• emission coefficients of outer surfaces, ε_{90/90}¹⁵</td> <td>: 0.05</td> <td>(-)</td> </tr> <tr> <td>• dimensional stability (length)⁶</td> <td>: -2.7</td> <td>(%)</td> </tr> <tr> <td>• dimensional stability (width)⁶</td> <td>: -1.2</td> <td>(%)</td> </tr> <tr> <td>• tensile strength parallel to faces⁶</td> <td>: 132</td> <td>(kPa)</td> </tr> <tr> <td>• tearing resistance (nail shank)⁶</td> <td></td> <td></td> </tr> <tr> <td> - length</td> <td>: 273</td> <td>(N)</td> </tr> <tr> <td> - width</td> <td>: 298</td> <td>(N)</td> </tr> <tr> <td>• water vapour diffusion factor μ of the product⁶</td> <td>: 6</td> <td>(-)</td> </tr> <tr> <td>• water vapour diffusion resistance of the product (μd or S_D)⁶</td> <td>: 0.24</td> <td>(m)</td> </tr> <tr> <td>• water vapour resistance of the product⁶</td> <td>: 1.2</td> <td>(MNs.g⁻¹)</td> </tr> <tr> <td>• reaction to fire classification</td> <td>: Euroclass E (BS EN 13501-1)</td> <td></td> </tr> </table>	• nominal length	: 10.00	(m)	• nominal width	: 1200	(mm)	• nominal thickness	: 40	(mm)	• nominal mass	: 0.70	(kg.m ⁻²)	• thermal performance core R _{90/90} ¹⁵	: 1.166	(m ² .K.W ⁻¹)	• emission coefficients of outer surfaces, ε _{90/90} ¹⁵	: 0.05	(-)	• dimensional stability (length) ⁶	: -2.7	(%)	• dimensional stability (width) ⁶	: -1.2	(%)	• tensile strength parallel to faces ⁶	: 132	(kPa)	• tearing resistance (nail shank) ⁶			- length	: 273	(N)	- width	: 298	(N)	• water vapour diffusion factor μ of the product ⁶	: 6	(-)	• water vapour diffusion resistance of the product (μd or S _D) ⁶	: 0.24	(m)	• water vapour resistance of the product ⁶	: 1.2	(MNs.g ⁻¹)	• reaction to fire classification	: Euroclass E (BS EN 13501-1)	
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