



Declaration of Performance

Optim-R

1000.CPR.2016.OPTIM-R.002

| | |
|---|--|
| Unique identification code of the product-type: | Optim-R |
| Intended use/es: | Factory made Vacuum insulation panel |
| Manufacturer: | Kingspan Insulation Ltd, Herefordshire HR6 9LA,UK |
| System/s of AVCP: | System 3 |
| Harmonised technical specification | ETA 15/0090 |
| Notified body/ies: | Exova NB 1104.KIWA NB.0063 |

| Essential characteristics | | Performance | | | | | | | | | | |
|---|---|--|------------|------|------------|------|------------|------|------------|------|------------|------|
| Thermal resistance | Thermal resistance R_D ((m ² .K)/W) | <table border="0"> <tr><td>d_N 20mm</td><td>2.86</td></tr> <tr><td>d_N 25mm</td><td>3.57</td></tr> <tr><td>d_N 30mm</td><td>4.28</td></tr> <tr><td>d_N 40mm</td><td>5.71</td></tr> <tr><td>d_N 50mm</td><td>7.14</td></tr> </table> | d_N 20mm | 2.86 | d_N 25mm | 3.57 | d_N 30mm | 4.28 | d_N 40mm | 5.71 | d_N 50mm | 7.14 |
| | d_N 20mm | 2.86 | | | | | | | | | | |
| | d_N 25mm | 3.57 | | | | | | | | | | |
| d_N 30mm | 4.28 | | | | | | | | | | | |
| d_N 40mm | 5.71 | | | | | | | | | | | |
| d_N 50mm | 7.14 | | | | | | | | | | | |
| Thermal conductivity λ_D (W/(m.K)) | d_N 20-50mm 0.007 | | | | | | | | | | | |
| Thickness tolerance | +2/-2mm | | | | | | | | | | | |
| Flatness | Flatness | $\leq 5\text{mm.m}^{-1}$ | | | | | | | | | | |
| Squareness | Squareness | $\leq 5\text{mm.m}^{-1}$ | | | | | | | | | | |
| Reaction to fire | RtF | RtF E/Efl | | | | | | | | | | |
| Durability of reaction to fire against heat, weathering, ageing / degradation | Durability Characteristic | NPD | | | | | | | | | | |
| Durability of Thermal resistance against heat, weathering, ageing / degradation | Durability Characteristic | NPD | | | | | | | | | | |
| | Deformation under specified compressive load and temp conditions | DLT(2)5 | | | | | | | | | | |
| | Dimensional stability under normal lab conditions | DS(N)5 | | | | | | | | | | |
| | Dimensional stability under specified temperature and humidity condition | DS(70,90)1 | | | | | | | | | | |
| | Determination of the aged values of thermal resistance and thermal conductivity | RD and λ_D | | | | | | | | | | |
| | Thermal conductivity λ_D (W/(m.K)) | 0.007 | | | | | | | | | | |
| Compressive strength | Compressive stress or compressive strength | CS(10)150 | | | | | | | | | | |
| Tensile / Flexural strength | Tensile strength perpendicular to faces | TR80 | | | | | | | | | | |

Declaration of Performance

| | | |
|---|--|---|
| Density | Range | 180-220 kg.m ⁻³ |
| OTR | (oxygen transmission rate) | OTR<0.05 |
| length and width | L ≤ 1000mm: -3mm/+ L > 1000mm: -5mm/+ W ≤ 1000mm: -3mm/+3mm W > 1000mm: -5mm/+5mm | (Min length =300mm) (Min width =300mm) |
| Durability of compressive strength against ageing / degradation | Compressive creep | NPD |
| Water permeability | Short term water absorption | NPD |
| | Long term water absorption | NPD |
| Water vapour permeability | Water vapour resistance | NPD |
| Release of dangerous substances to the indoor environment | Release of dangerous substances | NPD |
| Continuous glowing combustion | Continuous glowing combustion | NPD |
| NPD: No Performance Determined | | |

The performance of the product identified above is in conformity with the set of declared performances. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by:



.....
Ralph Mannion
Managing Director UK and Ireland
Pembridge, England, UK
Version 2
Version date 1/1/2019
First signed 1/1/2019