

#UKPHC21

# PHI COMPONENT CERTIFICATION

Edward Lowes

UKpassivhaus  
conference 2021

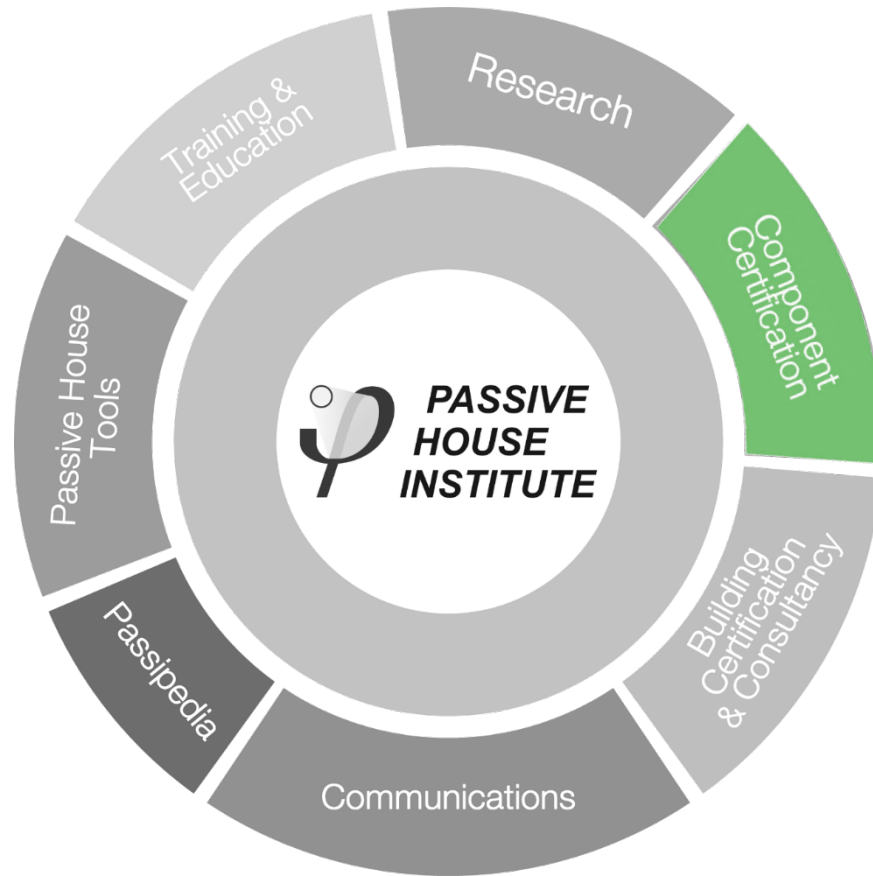


**ATMA**  
The Air Tightness Testing & Measurement Association

FAITHFUL  
GOULD  
Member of the SNC-Lavalin Group

**PH15**

**KIER**



# Optimising the process of energy balance calculation using key values verified by the Passive House Institute





Quelle: pro Passivhausfenster GmbH



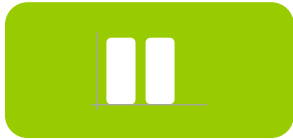
Quelle: Dörken Systems Inc.



# MANUFACTURER BENEFITS



- Mark of extremely high quality



- Makes performance data available for use in designPH and PHPP



- Ensures the quality of thermal data through third party, independent review



- Increased visibility on a competitive market through listing on the Component Database



# DESIGNER BENEFITS



- Confidence that the values you are using are on the safe side – no hidden surcharges, etc.



- Immediate acceptance of the values in building certification – little to no further information needed



- Wide range of components available – find the right product for your design and budget



### Opaque building envelope

- ▶ Wall and construction systems
- ▶ Façade anchors
- ▶ Floor slabs
- ▶ ICF for roof parapets
- ▶ Flue systems
- ▶ Balcony connections
- ▶ Attic staircases
- ▶ Airtightness systems

### Building services

- ▶ Compact heat pump units
- ▶ Ventilation systems  
(capacity < 600 m<sup>3</sup>/h)
- ▶ Ventilation systems  
(capacity > 600 m<sup>3</sup>/h)
- ▶ Drain water heat recovery

Explore the house and find the links or  
 let the hotspots show up



### Transparent building envelope

- ▶ Windows
- ▶ Roof windows
- ▶ Skylights
- ▶ Curtain wall systems
- ▶ Glass roofs
- ▶ Openable glass roof elements
- ▶ Shutters
- ▶ Entry doors
- ▶ Sliding doors
- ▶ Glazing
- ▶ Spacers










[database.passivehouse.com](https://database.passivehouse.com)

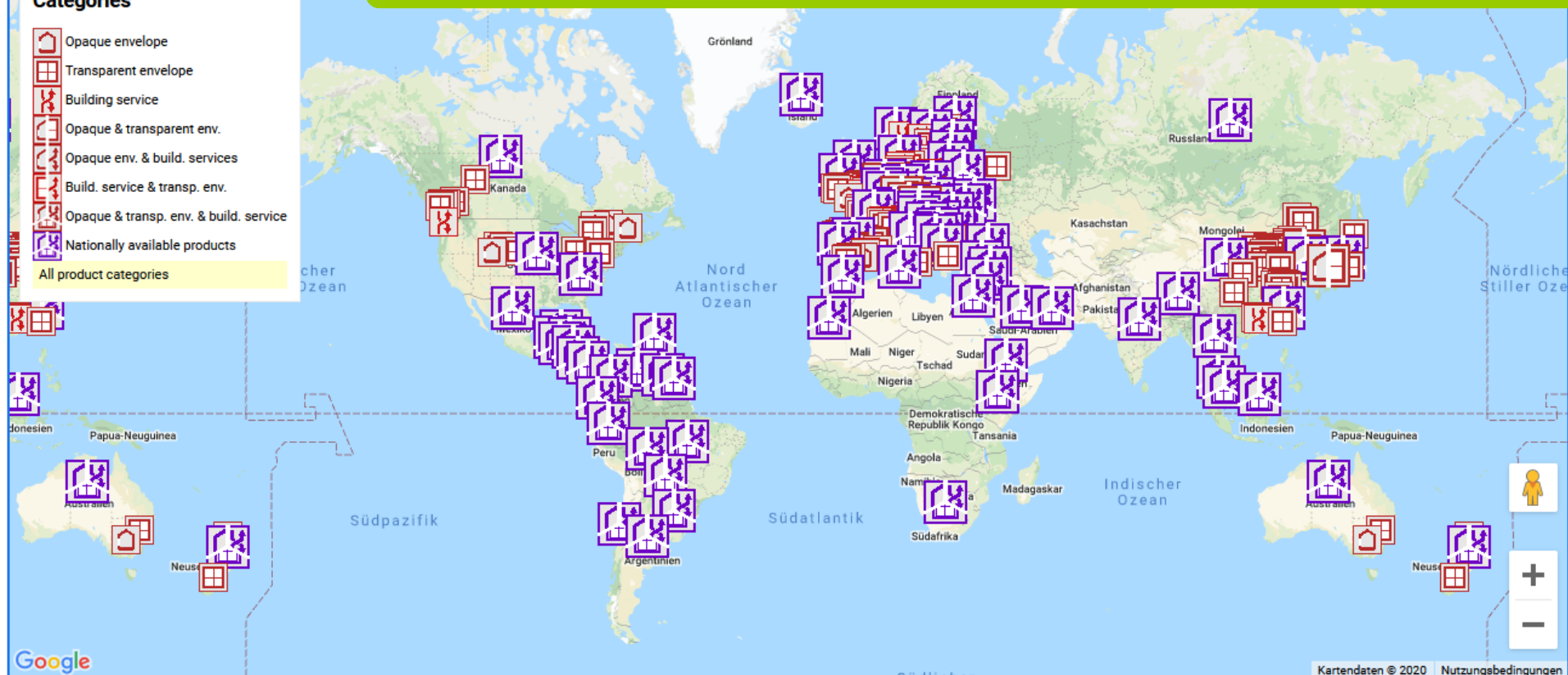
Karte

Satellit

> 1000 certified Passive House components (Dec. 2020)

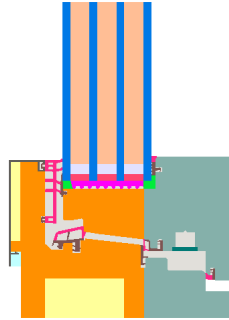
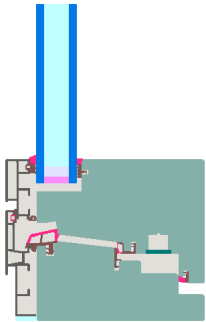
Categories

-  Opaque envelope
-  Transparent envelope
-  Building service
-  Opaque & transparent env.
-  Opaque env. & build. services
-  Build. service & transp. env.
-  Opaque & transp. env. & build. service
-  Nationally available products
-  All product categories



Kartendaten © 2020 Nutzungsbedingungen





Arctic



Cold



Cool, temperate



Warm, temperate



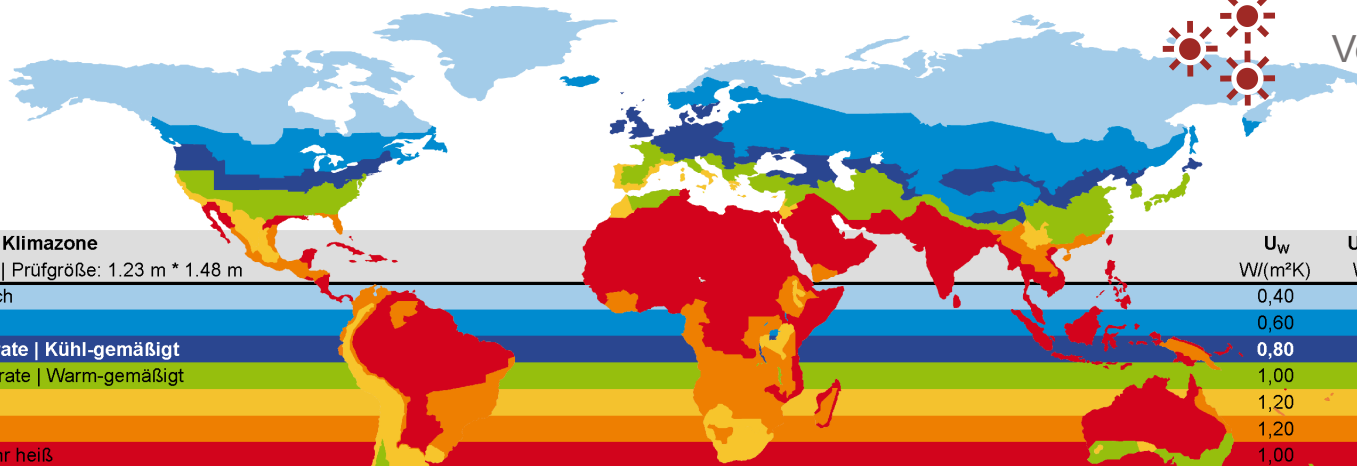
Warm



Hot

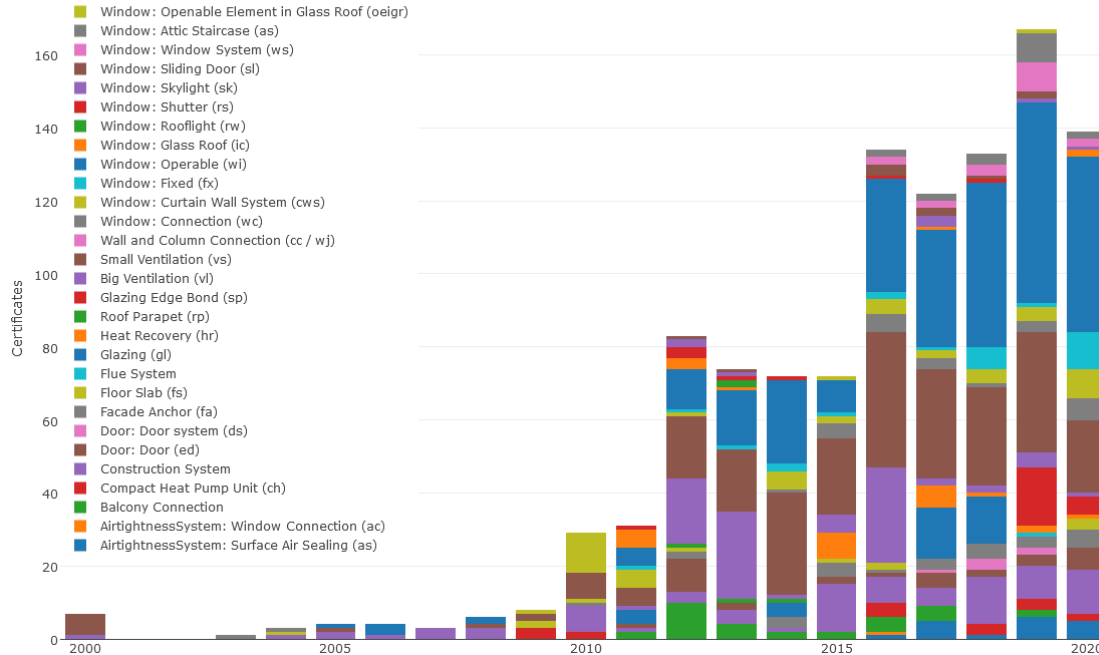


Very hot



# NUMBER OF NEW CERTIFICATES PER YEAR

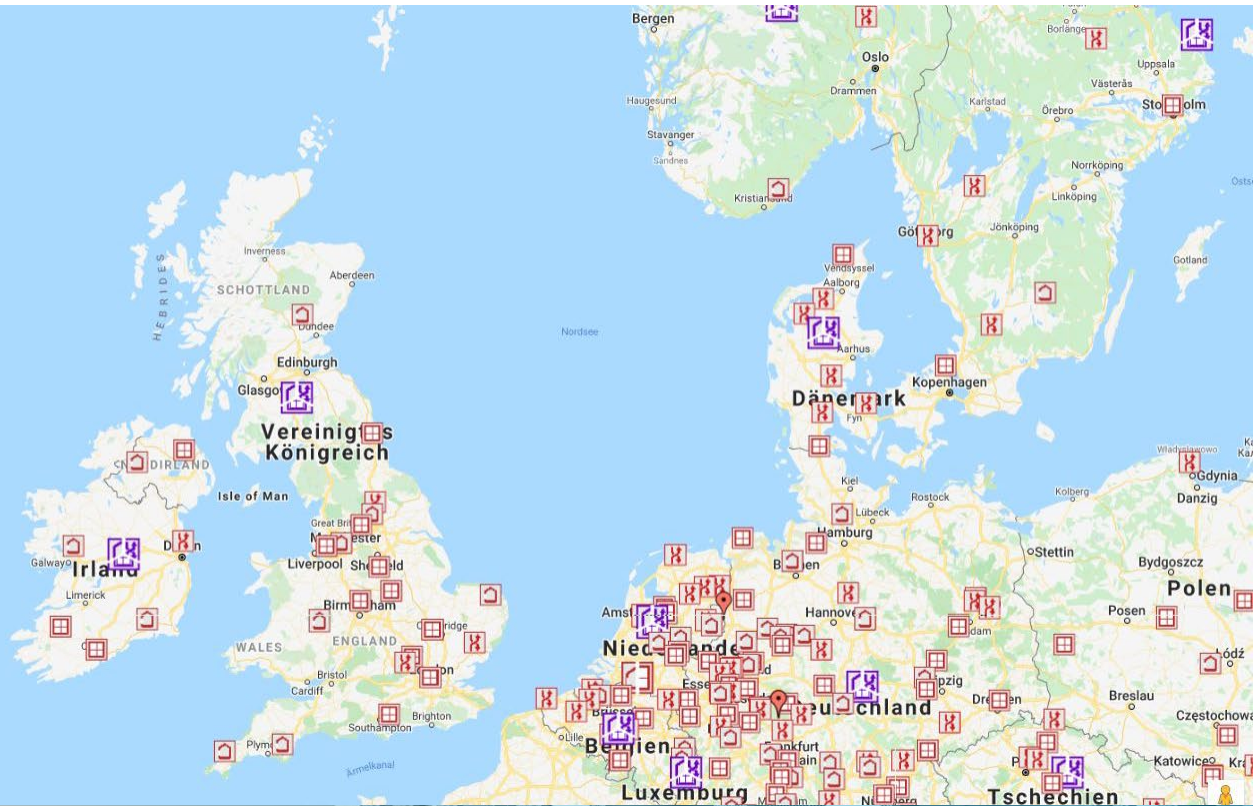
Number of new certificates



29  
component  
types

# CERTIFIED COMPONENTS IN THE UK

- Gebäudetechnik
- Opake & transparente Hülle
- Opake Hülle & Gebäudetechnik
- Gebäudetechnik & transp. Hülle
- Opake & transp. Hülle & Technik
- National verfügbare Produkte
- Alle Produktkategorien





Quelle: pro Passivhausfenster GmbH

29

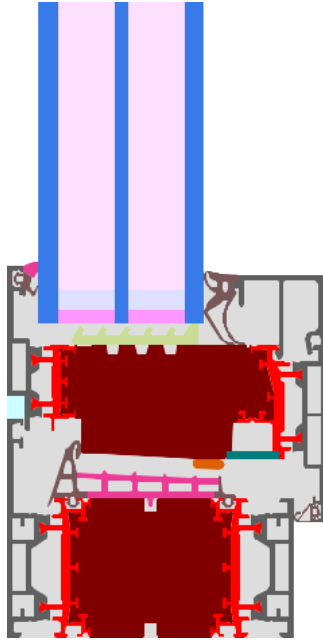


Quelle: Dörken Systems Inc.

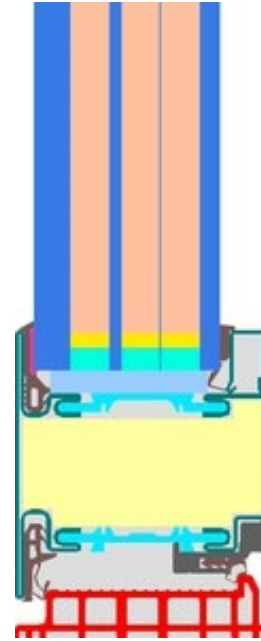
10



14



**Comar Architectural Systems Ltd.**  
 Mitcham  
 Component database: 1657wi03



**NEOS Protect Ltd.**  
 Gateshead  
 Component database: 1706ds03

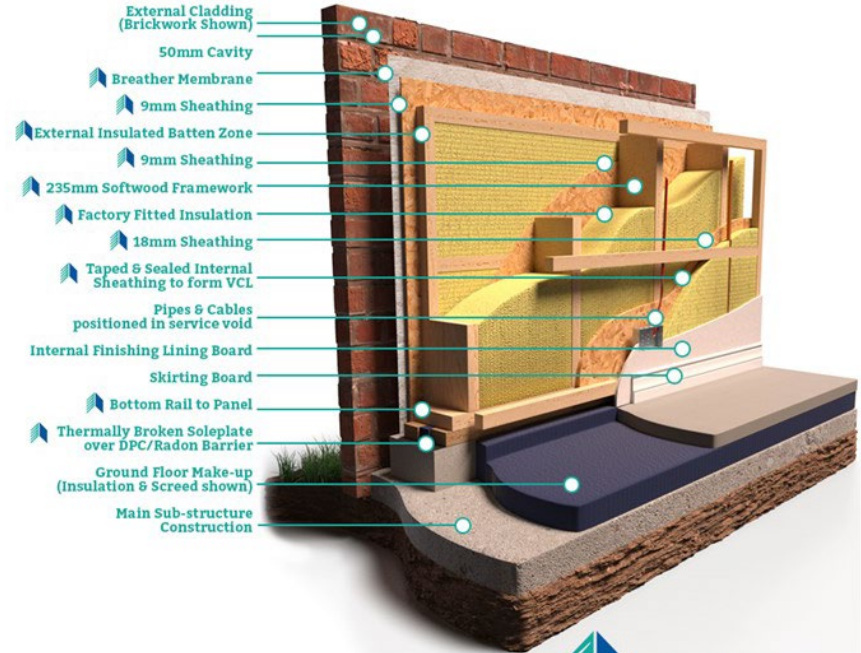




Quelle: Beattie Passive Build System Ltd.



**Beattie Passive Build System Ltd.**  
Norwich  
Component database: 0384cs03



**Frame Homes Ltd.**  
Redruth  
Component database: 1184cs03



Image: Airflow Developments Ltd.



Image: Titon Hardware Ltd.



**Airflow Developments Ltd.**  
High Wycombe  
Component database: 0916vs03





**Titon Hardware Ltd.**  
Colchester  
Component database: 1185vs03



**CERTIFICATE**  
 Certified Passive House Component  
 Component-ID 1657w03 valid until 31st December 2021

Passive House Institute  
 Dr. Wolfgang Feist  
 64283 Darmstadt  
 Germany

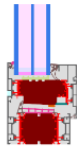




Category: **Window Frame**  
 Manufacturer: **Comar Architectural Aluminium Systems, The Parkside Group Limited, Mitcham, United Kingdom**  
 Product name: **Comar 10**

This certificate was awarded based on the following criteria for the cool, temperate climate zone

Comfort  $U_{Wf} = 0.80 \leq 0.80 \text{ W/(m}^2 \text{ K)}$   
 $U_{Wf, installed} \leq 0.85 \text{ W/(m}^2 \text{ K)}$   
 with  $U_g = 0.70 \text{ W/(m}^2 \text{ K)}$

Hygiene  $f_{Rw=0.25} \geq 0.70$

Passive House efficiency class: phE | phD | phC | **phB** | phA

**CERTIFIED COMPONENT**  
 Passive House Institute

[www.passivehouse.com](http://www.passivehouse.com)

**Edward Lowes**  
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**Further information**  
[database.passivehouse.com](http://database.passivehouse.com)  
[www.passivehouse.com](http://www.passivehouse.com)  
[www.passipedia.org](http://www.passipedia.org)  
[www.passivehouse-international.org](http://www.passivehouse-international.org)



# UKpassivhaus conference 2021



DELIVERING NET ZERO THROUGH  
PASSIVHAUS

THANK YOU

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