

CPD: Windows & Doors for Passivhaus - Advanced

CPD Learning Objectives

- Passivhaus model (How the model has evolved since early 1960s)
- Main Passivhaus criteria relating to performance of windows (space heating demand, airtightness)
- Present situation in UK (stock of old building – new building regulations)
- Heat loss from windows – Understanding the U_w . Discussing about the difference between U_w and Ψ opaque as quality criteria for high performing windows.
- Main advantages of investing in a Passivhaus building/embracing Passivhaus design principles
- Thermal comfort – temperature asymmetry & temperature stratification).
- How thermal comfort requirement affects the U_w value on Passivhaus windows.
- Surface Temperature factors. Hygiene criterion for windows. Risk indicator of mould growth. Another quality criterion for high quality windows.
- Main pillars of a Passivhaus
- Passivhaus suitable installation examples – minimising the installation thermal bridge heat losses /airtight installation
- How to avoid overheating (e.g. shading, night purge ventilation)
- Recommended U_w values for Passivhaus windows
- Installation/Glazing edge thermal bridge effect
- Internorm Passivhaus window systems and award-winning projects
- Modern minimal glazing systems development
- Practical UK examples and data on the performance of the installed windows using different building typologies and Internorm window systems.
- Data on the impact of the installed windows on the heating demand and resulting running costs - optimal position of installed windows, avoiding unnecessarily high thermal bridge heat loss, low surface temperatures, and potential mould growth.

CPD Development Outcomes

- Provide an in-depth presentation of qualitative parameters affecting the performance of windows suitable for Passivhaus projects.
- Emphasise how windows affect the energy balance, thermal comfort - (winter scenario) and overheating (summer scenario). This is an advanced, in-depth presentation - please allow for approx. 2 hours.



CPD accredited/endorsed by:

