

PAS to Passivhaus: Comparing Retrofit Standards Table

Toolkit

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Comparison of Retrofit and Energy Performance Standards

This table has been created so that certain characteristics of energy performance standards can be compared easily. It should be read alongside our quick guide on the same subject.

Feature / Focus Area	Passivhaus	EnerPHit	PAS 2035	RdSAP	AECB Carbonlite Standards
Type	Performance standard	Retrofit version of Passivhaus	UK retrofit process standard	Energy assessment methodology	Performance standards
Scope	New builds	Existing buildings (retrofit)	Mainly Government-funded domestic retrofits (but anyone can use PAS 2035)	All UK homes (used for EPCs)	New build and retrofit
Energy Target	≤15 kWh/m ² /year (space heating)	<20 or 25 kWh/m ² /year or using component method	No fixed target – depends on dwelling	No target – calculates current performance	~40 kWh/m ² / yr new build or 50-100 kWh/m ² yr for retrofit
Modelling Tool	PHPP	PHPP	RdSAP, SAP or PHPP	RdSAP	PHPP
Approach	Fabric-first, airtightness, MVHR, QA process	Step-by-step or full retrofit, QA process	Process-led: assessment, design, coordination	Simplified, input-based	Like Passivhaus & EnerPHit with more flexibility, QA process
Certification	Yes – via Passivhaus Certifier	Yes – via Passivhaus Certifier	No certification, but compliance required for Gov funded projects	No certification	Yes – via AECB Certifiers
• Ventilation	MVHR required	MVHR required	Ventilation checks required	Not assessed in detail	MVHR or cMEV

Feature / Focus Area	Passivhaus	EnerPHit	PAS 2035	RdSAP	AECB Carbonlite Standards
Moisture Risk Management	Not part of assessment	Encouraged	Required	Not covered	Integral to planning
Performance Gap Focus	Very low – highly predictive	Low – similar to Passivhaus	Aims to reduce through coordination, but no evidence as yet	High – not predictive	No evidence as yet, but follows many Passivhaus processes
Flexibility	Low – strict criteria	Medium – component or full approach	High – adaptable to context	High – minimal input required	Medium – more accessible than Passivhaus
Training & Roles	Certified Designers & Consultants, Certified Tradesperson, Passivhaus Certifiers	Same as Passivhaus	Retrofit Assessor, Designer, Coordinator, Evaluator, Installer	Domestic Energy Assessor (DEA)	Passivhaus and AECB-trained professionals
Best For	High-performance new builds	Deep retrofit with quality assurance	Managing risk in funded retrofits	Producing EPCs	Better-than-regulation performance without full Passivhaus rigour



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