What is EnerPHit?

EnerPHit is a certification standard developed by the Passive House Institute (PHI) for retrofitting existing buildings to achieve near-Passive House levels of energy efficiency. It combines rigorous energy performance criteria with practical retrofit strategies, focusing on reducing heat loss, improving airtightness, and optimising ventilation. EnerPHit is particularly relevant in the UK residential retrofit sector, where older housing stock often requires significant energy efficiency upgrades to meet modern standards.

EnerPHit is designed to bridge the gap between conventional retrofit practices and the high-performance standards of new Passive House construction. It addresses the challenges of retrofitting older buildings, such as thermal bridging, poor insulation, and inadequate ventilation, while ensuring occupant comfort and indoor air quality. The certification process involves meeting specific energy performance targets, including a maximum annual heating demand of 25 kWh/m² and an airtightness level of ≤1.0 air changes per hour at 50 Pascals (ACH50).

Practical Examples:

1. **Retrofitting a Victorian Terrace House:** In a typical UK Victorian terrace, EnerPHit principles might include installing internal or external wall insulation, upgrading windows to triple-glazed units, and fitting a mechanical ventilation with heat recovery (MVHR) system to ensure adequate airflow without compromising energy efficiency.
2. **Loft Conversion:** When extending a property, EnerPHit guidelines ensure that the new structure meets high energy efficiency standards, such as using high-performance insulation materials and ensuring airtight construction details.

Related Terms:

1. **Passive House:** A building standard for new constructions that emphasises ultra-low energy consumption and high levels of comfort.
2. **Mechanical Ventilation with Heat Recovery (MVHR):** A system that provides fresh air while recovering heat from exhaust air, improving energy efficiency and indoor air quality.
3. **Thermal Bridging:** Areas in a building envelope where heat transfer occurs more readily, leading to energy loss.
4. **Building Regulations Part L:** UK regulations covering the conservation of fuel and power in buildings, relevant to energy efficiency in retrofits.
5. **Approved Document F:** Guidance on ventilation requirements in the UK, ensuring adequate airflow in retrofitted properties.