What is Average Annual Humidity (AAH)?

Average Annual Humidity (AAH) refers to the mean level of water vapour present in the air over the course of a year, typically expressed as a percentage. It is a key metric used to assess the moisture content in the atmosphere, which directly influences indoor air quality, building materials, and occupant comfort. In the UK, AAH is particularly relevant due to the country's temperate maritime climate, characterised by relatively high humidity levels year-round.

AAH is a critical factor in the design and maintenance of residential buildings, including new builds, retrofits, renovations, and extensions. High humidity levels can lead to issues such as mould growth, condensation, and structural damage, while low humidity can cause discomfort and respiratory problems. Understanding AAH helps architects, builders, and homeowners implement effective ventilation strategies and moisture control measures.

Synonyms:
Mean Annual Humidity, Yearly Humidity Average.

Related Terms:

1. **Relative Humidity (RH):** The ratio of the current amount of water vapour in the air to the maximum amount it can hold at a given temperature, expressed as a percentage.
2. **Dew Point:** The temperature at which air becomes saturated with water vapour, leading to condensation.
3. **Vapour Pressure:** The pressure exerted by water vapour in the air, influencing humidity levels.
4. **Condensation Risk:** The likelihood of moisture condensing on surfaces due to temperature differences and high humidity.
5. **Mechanical Ventilation with Heat Recovery (MVHR):** A system that provides controlled ventilation while recovering heat, reducing humidity levels efficiently.
6. **Building Regulations Part F (Ventilation):** UK regulations that specify requirements for ventilation systems to ensure adequate air quality and moisture control.
7. **Approved Document C (Site Preparation and Resistance to Contaminants and Moisture):** UK guidance on preventing moisture ingress and managing humidity in buildings.

Practical Examples:

1. In a UK retrofit project, AAH data is used to design an MVHR system that maintains optimal indoor humidity levels, preventing mould growth and improving air quality.
2. During the renovation of a Victorian terrace, AAH informs the selection of breathable materials that manage moisture effectively, reducing the risk of dampness.
3. For a new build extension, AAH calculations guide the installation of vapour barriers and insulation to minimise condensation risk.