ZYPHO® Shower Heat Recovery

WWHR in BREEAM®

What is BREEAM®?

BREEAM® (Building Research Establishment Environmental Assessment Method) is the longest established method and most widely used third party certification scheme from BRE (Building Research Establishment) to assess the sustainability for planning projects, infrastructure and buildings. It recognises and reflects the value in using higher performing assets across the buildings life cycle, from new construction to in-use and refurbishment.

BREEAM® was created by BRE to drive innovation and standards above the regulatory minimum, meaning that BREEAM®-rated developments are more sustainable environments.

The Purpose of BREEAM®

The aim of BREEAM® is to reduce the impact of buildings on the environment through the early design and development stages, construction stage and the building's life span. Not only does BREEAM® determine a building's level of sustainability but also the economic, environmental and social benefits that it has for the people linked to the life cycle of that building.

How does BREEAM® work?

The assessment process comprises two stages:

1. The Design Stage (Interim) and the
2. Post-Construction Stage (Final).

Within these stages, there are assessment sections. The Energy Section aims to encourage the design and operation of energy efficiency buildings, driving energy efficiency, and sustainable energy use to ultimately reduce CO_2 (carbon dioxide) emissions. BREEAM® awards points or 'credits', and groups the environmental impacts into to 10 categories, as follows:

1. **ENERGY**: Operational energy and carbon dioxide (CO_2)
2. **MANAGEMENT**: Management policy, commissioning, site management and procurement
3. **HEALTH AND WELLBEING**: Internal and external issues (e.g. noise, light, air, quality)
4. **TRANSPORT**: Transport-related CO_2 and location related factors
5. **WATER CONSUMPTION AND EFFICIENCY**
6. **MATERIALS**: Embodied impacts of building materials, including lifecycle impacts like embodied CO_2
7. **WASTE**: Construction resource efficiency and operational waste management and minimisation
8. **POLLUTION**: Of external air and water
9. **LAND USE**: Type of site and building footprint
10. **ECOLOGY**: ecological value, conservation and enhancement of the site

The total number of points or credits gained in each section is multiplied by an environmental weighting factor that takes into account the relative importance of each section. Section scores are then added together to produce a single overall score.

Once the overall score for the building is known, this is translated into a rating on a scale:

<10%	UNCLASSIFIED	–
>10%	ACCEPTABLE	★☆☆☆☆
>25%	PASS	★★☆☆☆
>40%	GOOD	★★★☆☆
>50%	VERY GOOD	★★★★☆
>70%	EXCELLENT	★★★★★
>85%	OUTSTANDING	★★★★★

BREEAM® and WWHR

For many developments, whether it be residential (houses, bungalows or apartments) or commercial (hotels, sports facilities or student accommodation), WWHR (Waste Water Heat Recovery) can contribute towards BREEAM® credits within the following sections:

1. **ENERGY**: Operational energy and carbon dioxide (CO_2)
5. **WATER CONSUMPTION AND EFFICIENCY**

By using WWHR technology, the hot water production is drastically reduced, which saves energy, enhances efficiency and reduces the buildings CO_2 emissions.