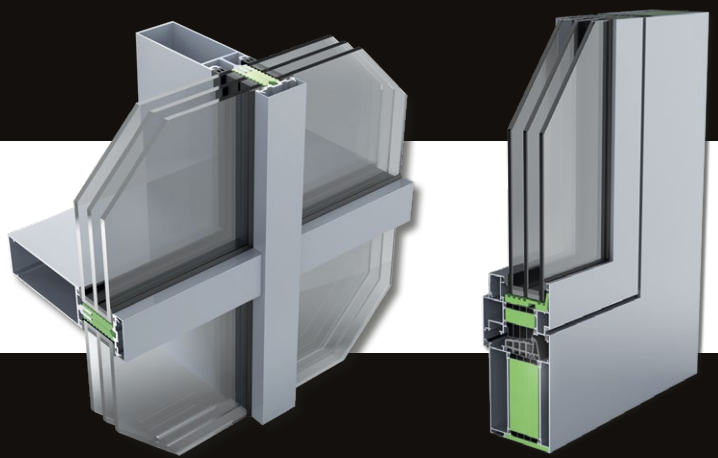
Metal Technology

Leading the way in Passive House Education

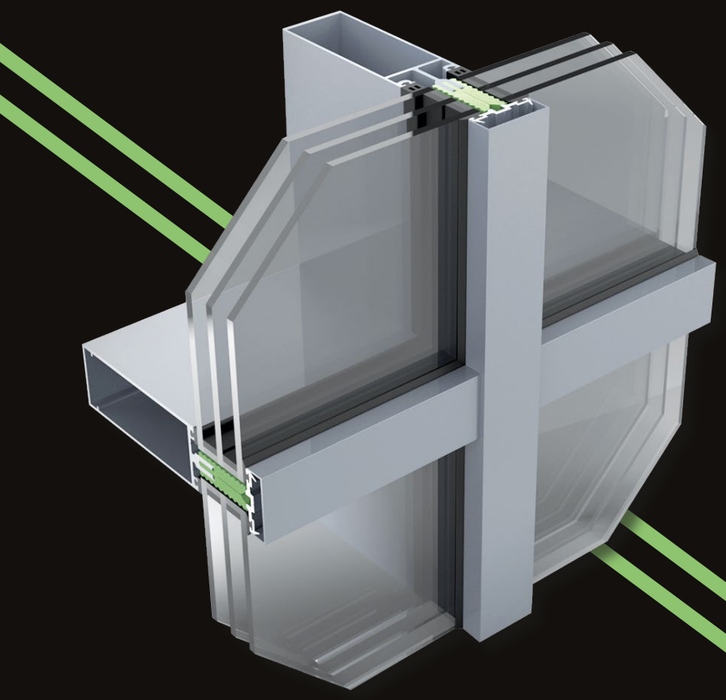
Passive House Institute



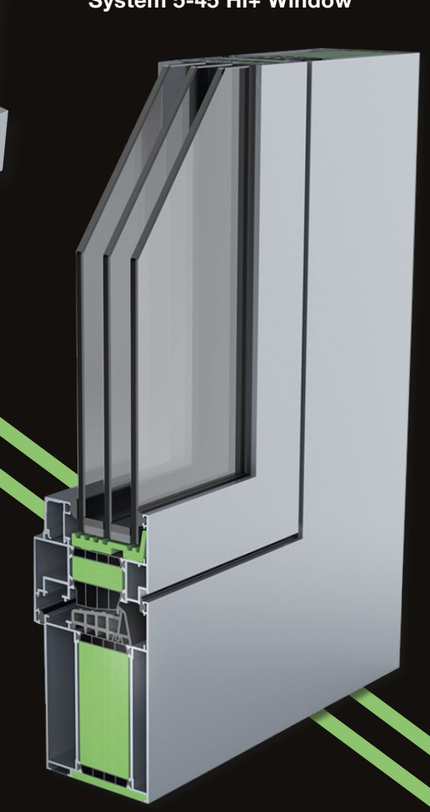
Metal Technology's System 17 Hi+ Curtain Walling and System 5-45 Hi+ Window have been certified by the Passive House Institute, recognising that our products meet the required energy-efficiency criteria.

Furthermore, System 17 Hi+ Curtain Walling has been awarded with the highest ranking of A+.

The PHI is an independent research institute that has played an especially crucial role in the development of the Passive House concept - the only internationally recognised, performance-based energy standard in construction.



System 17 Hi+ Curtain Walling



System 5-45 Hi+ Window

Metal Technology's product system manuals and Logikal estimating and production software are available to allow pricing and manufacturing. Please speak to one of our sales representatives in relation to any current projects that require design or pricing assistance.

sales@metaltechnology.com
metaltechnology.com/passive-house

Currently, 35% of global energy consumption stems from the building sector alone and the operational stage is the largest contributor to carbon emissions, the majority of which is from heating and cooling demand. Passive house buildings provide a transparent, quality assured approach to meeting our climate goals, whilst also creating a sustainable built environment.

Following an extensive R&D and technical development process, Metal Technology's Passive House certified products can be integrated into Passive House projects, to assist in providing the overall requirement of Passive House criteria. Further Passive House products are under development as we continue our drive to reduce our carbon footprint on our road to Net Zero.

For a building to be considered Passive House, it must meet the following criteria:

Space heating and demand - not to exceed 15kWh or 10W (peak demand) per square metre of usable living space

Space cooling demand - targets matching the heat demand with an additional, climate dependant allowance for dehumidification

Renewable Primary energy demand - not to exceed 60kWh annually for all domestic applications (heating, cooling, hot water, and electricity) per square metre of usable living space

Airtightness - maximum of .6 air changes per hour at 50 pascals pressure (as verified with onsite pressure testing both pressurised and depressurised states)

Thermal comfort - thermal comfort must be met for all living areas year-round with not more than 10% of the hours in any given year over 25 degrees Celsius

St Columba’s RC High School & Woodmill High School

Artist’s impressions | Part of the new Dunfermline Campus

Metal Technology has been appointed to supply its ‘next generation’ Passive House systems for one of the world’s largest Passivhaus buildings at 26,666m² – St Columba’s RC High School and Woodmill High School.

The new Dunfermline Learning Campus will incorporate a new college for Fife Council, and two new high schools: St Columba’s RC High School and Woodmill High School. Due to open in 2024, the 55 acre, circa £220m ‘super-campus’ will accommodate up to 2,700 school pupils and 2,500 college students.

Designed by AHR Architects, the high school development is being delivered by BAM Construction for Fife Council and is one of the largest Passivhaus buildings in the world, at 26,666m². The schools form part of AHR’s and Fife Council’s journey to reduce energy use and carbon emissions.

Metal Technology has been appointed to supply its high performance, Passive House certified products: System 5-45 Hi+ Inward Opening Windows and System 17 Hi+ Curtain Walling.

Metal Technology’s systems are designed to perform seamlessly together to deliver the desired aesthetic and performance standards. Further products to be supplied for this exemplar campus include System 5-20D Hi+ doors, System 23 Louvres and LV023 Barrier Grilles.

South West College Enniskillen, N.Ireland

The £29m South West College Erne campus in Enniskillen has been recognised as a UN Centre of Excellence for High Performance Buildings. The project has joined 25 other buildings around the world as an exemplar of green construction.

Metal Technology played an intrinsic role in the design process of Erne Campus, assisting approved fabricator and installer, D & K Architectural Systems Ltd. The campus was the world's first educational Passivhaus Premium building and the first non-domestic Passivhaus Premium in the UK, delivering an average project façade u-value of 0.8w/m2K.

Designed by Hamilton Architects LLP and built by Tracey Brothers Ltd, the 8,000sqm education and community facility is situated on the prime site of the former Erne Hospital and has achieved BREEAM outstanding accreditation, generating four times more energy than it uses. The Erne Campus won the 2021 BREEAM Official Public Sector Project – Design Stage Award and has recently been named UK Project of the Year 2022 by the Royal Institution of Chartered Surveyors (RICS).

Metal Technology also supplied its high performance glazing systems for Scotland's first Passivhaus Primary School, which is being built in North Perth to replace the current North Muirton and Balhousie Primary Schools.

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