GLOSSARY

The glossary below includes a list of definitions of components which form the metal-based envelope of an industrial, commercial or warehouse building and related terminology.

ACM – Aluminium Composite Material (ACM) is a light aluminium composite material consisting of two thin aluminium cover sheets bonded together with a polymer core material. ACM is supplied in different grades where the core material contains fillers blended with the polymer core to provide a level of fire resistance where required

Aesthetics – The word refers to how humans perceive and judge objects according to their attractiveness

Breather membrane – is a water-resistant material layer which will allow water vapour to pass through when there is a difference in humidity on opposite sides of it

Building envelope – is the physical separator between the internal conditioned and external unconditioned environment of a building including the resistance to air, water, heat, light, and noise transfer

Butt strap – A metal strap or plate which seals and secures both pieces of a butt joint at the ends of flashings and fabrications. The item is generally positioned on the inside face of the joint and in some cases is designed to accommodate a degree of movement or expansion

Cavity – a void, or an empty space between two surfaces

Cavity barrier – a product to prevent the passage of fire and smoke through concealed cavities

CE Marking – CE marking is a requirement for certain products traded in the European economic area. A CE mark on a building product is a declaration by the manufacturer that their product is compliant with the Construction Products Regulations (CPR) and the minimum requirements of EU countries. A CE mark shows that the product complies with all the relevant European legislation covering the product's health, safety or environmental requirements

Cladding – a product (outer material) or system (assembly of components) to provide a wall skin or layer. In construction, the generic word '*cladding'* can be used to define a product or system used to provide a degree of thermal insulation, fire performance and weather resistance, and to improve the appearance or aesthetics of a building

Condensation – water which collects as droplets on a cold surface when humid air is in contact with it. The process of condensation involves the conversion of a vapour or gas to a liquid

Corrugated – a parallel sinusoidal profile shape with alternating ridges and grooves or furrows

Dead load – includes *loads* that are constant over time, including the *weight* of the structure itself and immovable fixtures and *permanent* attachments or accessories *Dead loads* are also known as *permanent* or static *loads*

Declaration of Performance – The Declaration of Performance (DoP) is a key part of the Construction Products Regulation (CPR). It provides information on the performance of a product. Each construction product covered by a European harmonised standard or for which a European Technical Assessment has been issued needs this Declaration and has to be CE marked

Eaves – The projecting overhang at the lower edge of a roof

End lap – A joint in which two joining members are made to overlap to prevent the ingress of water and to create a longer length

Expanding rivet – a hollow cored mechanical fastener usually made from a malleable metal which is secured by deforming the shape of the rivet through the pressure exerted on the walls of the hollow core via a central retractable mandrel

Fabrication – a formed robust, aesthetic or architectural feature made from a piece of impervious material installed to prevent the passage of water into a structure from a joint or as part of a weather resistant barrier

Fall arrest – A system provides maximum freedom of movement for workers to conduct their duties. In doing so it allows them to reach the point where a fall could occur, such as the edge of a roof for gutter maintenance. However, in the event of a fall, the fall will be arrested and so allow the person to either effect a self-rescue or be rescued

Fall restraint – a systems that allows a person access to conduct their duties on the roof but prevents them from reaching a point where a fall could occur. Restraint systems are generally positioned more than two metres from the hazard

Fire stop – a passive fire protection system made up of various components and used to seal openings and joints in a fire-resistance rated wall or floor assembly

Flashing – a thin piece of impervious material installed to prevent the passage of water into a structure from a joint or as part of a weather resistant barrier

Foam filler blocks – a system, which fills the gaps created by profiles of roof sheeting at the ridges, eaves and other intersections. Foam fillers are designed to seal roofing and cladding profiles against dust, infestation, water and moisture ingress

Fragility – susceptibility of an item to breakage, failure, or loss of value from the impact of external forces, measured as the amount of force required to cause the damage. A non-fragility test standard can be applied to any product which will form a roof or part of a roof and is intended to provide information about whether it can support the instantaneous loads imposed on it by a person stumbling or falling on it. If an assembly fails this test it must be classified as “fragile”

Gable – the end wall of a building on the side which is topped by a gable

Guarantee – A promise or assurance, especially one given in writing, that attests to the quality or durability of a product or service

Gutter – A trough fixed under or along the eaves or in the valley of a roof for draining rainwater from a roof

Hip – The external angle formed by the meeting of two adjacent sloping sides of a roof

Imposed load – defined as the load that is applied to the structure that is not permanent and can be variable. In Eurocode phraseology, it is described as a 'quasi-permanent variable action'

Insulation – a material used to reduce the rate of heat transfer and/or to improve acoustic performance

Intumescent – A coating or sealant, which swells up when heated, thus protecting the material underneath or sealing a gap in the event of a fire

Mineral insulation – a name for fibrous materials that are formed by spinning or drawing molten mineral or rock materials such as slag and ceramics to form a quilt or slab material used to reduce the rate of heat transfer and/or to improve acoustic performance

Phenolic insulation – a board insulation in which a plastic foam forms an insulating core between two flexible facing layers. It has a high closed cell content and fine cell structure. Phenolic insulation demonstrates improved fire performance in some situations

PIR insulation – Continued technical developments in Europe and the US have led to the next product generation which is often called polyisocyanurate or rigid polyisocyanurate foam (or PIR for short)

Primary fastener – a mechanical and structural method of attaching primary components together or attaching primary components to a sub structure to form a structural connection

PUR insulation – Polyurethane rigid foam (or PUR for short) has been used in construction since the 1960s as a high-performance insulation material

Purlin – a structural prefabricated horizontal beam that provides intermediate support for the roof construction for a period of time from point of purchase or installation

Rainscreen – a wall comprising an outer skin of panels and an airtight insulated backing wall separated by a ventilated cavity

Ridge – The horizontal line formed by the juncture of two sloping planes, especially the line formed by the surfaces at the top of a roof

Roofing – a product (outer material) or system (assembly of components) primarily designed to shed water but also incorporating structural performance and aesthetics

Rooflight – a translucent product, system or assembly which when incorporated into a roof allows natural daylight into the building

Sandwich panel – A sandwich panel is a structure made of three layers: low density core inserted in between two relatively thin skin layers. The very high rigidity of a sandwich panel is achieved through the interaction of its components under flexural load applied to the panel

Sealant – is a pliable substance used to fill the gap and block the passage of fluids and/or air through the joints or openings in materials. Commonly used in the laps between adjacent profiled sheets and in junctions between flashings

Secondary fastener – a mechanical method of attaching or securing joints or junctions between components, usually found as part of a method of weather sealing a joint

Secret fix cladding – a system which is unobstructed by any visible fixings, gives a building a sheer smooth facade that complements the modern aesthetic

Side lap – The overlap performed by two adjacent building components to prevent the penetration and ingress of water

Snow load – can be imposed by the accumulation of snow and is more of a concern in geographic regions where snowfalls can be heavy and frequent. The shape of a roof is a particularly important factor in the magnitude of the snow load

Spacer system – a series of structural components used in twin skin constructions to provide a compartment between the inner liner sheet and the outer weather sheet for the inclusion of insulation material plus in some cases an air gap and ancillary layers

Standing seam – a style of roof that has flat or lightly ribbed panels that run up the slop of the roof, and raised interlocking seams that connect adjacent panels together

System – an assembly of component parts which act as a whole and which has a verified performance and is subject to a guarantee or warranty issued by the system manufacturer and/or supplier

Thermal break – are high performance thermal insulators used between horizontal and vertical connections of internal and external elements to prevent thermal or cold bridging

Trapezoidal – a quadrilateral profile shape having two parallel sides

U value – measure of the heat transmission through a building part (such as a roof, wall or window) or a given thickness of a material (such as insulation) with lower numbers indicating better insulating properties

Valley – A depression or hollow resembling or suggesting a valley, at the point at which the two slopes of a roof meet

Vapour barrier – A layer of impervious material applied to the inner (warm) surface of a construction to prevent absorption and condensation of moisture

Vapour check – is used to omit the risk of interstitial condensation within a structure as well as improving the airtightness of the building. A vapour check restricts the passage of warm, moist air from within the building from permeating into the structure or the roof

Warranty – A representation, especially in writing, made by a seller or company to a purchaser of a product or service that a refund, repair, or replacement will be made if the product or service proves defective or unsatisfactory, especially within a given time period

Wind load – a randomly applied dynamic load. The intensity of the wind pressure on the surface of a structure depends on wind velocity, air density, orientation of the structure, area of contact surface, and shape of the structure. The applied load can be both positive and negative depending upon the factors above