**Joint information from MTCBC and Merthyr Valleys Homes**

**Information on External Wall Insulation (EWI) installations**

**Reassurance**

Merthyr Tydfil County Borough Council has received queries regarding the use of external wall insulation within the county borough. The media has focused on the rainscreen cladding system as a contributing factor to the accelerated spread of the fire in Grenfell Tower.

To allay any fears of residents living in homes which have received External Wall Insulation under a number of recent schemes within the county borough (including Arbed, Arbed 2, Warm Homes or MVH only schemes), Merthyr Tydfil County Borough Council feels it is important to provide residents with information.

We hope this information bulletin will significantly reassure any resident who may have fears or concerns about their home following external wall insulation works.

**Rainscreen cladding**

Rainscreen cladding is the type of system that media reports have speculated was present at Grenfell Tower and is mainly designed to protect a building from the elements. It tends to be made up of a protective, decorative outer coat attached to the underlying structure of the building by a supporting grid (a metal frame in many cases).

The cavity created between the outer cladding and the building structure is often used to house insulation materials, but it also maintains a ventilated cavity and aids draining. There are various systems and specifications for rainscreen cladding.

**External Wall Insulation (EWI) is not rainscreen cladding**

External Wall Insulation on properties is very different – in most cases this is ‘retrofitted’ to the property to improve its thermal performance, while also giving it an aesthetic facelift.

In simple terms, an insulation board is mechanically fixed to the wall (sometimes it can also be ‘glued’ to the wall using cement-based plaster adhesive, in addition to the mechanical fixings). On top of this, a layer of cement-based plaster is added and a fibreglass mesh sunk into the plaster while still wet. Finally, a top coat render is added to the system to give the desired finish.

The insulation material is fully enclosed within base rails and the cement-based finish from the external elevation of the property - thus enclosed with non-combustible materials.

**External Wall Insulation is a heavily regulated market**

All systems and products used in any schemedelivered directly by Merthyr Tydfil County Borough Council are BBA (British Board of Agreement) compliant. The BBA is an independent national organisation which approves, inspects, tests and certifies construction materials such as external wall insulation to ensure they meet the rigors of UK building regulations. As part of this independent testing, the systems are assessed against key factors including:

* Thermal performance
* Strength and stability
* Behaviour in relation to fire
* Risk of condensation
* Durability

There is also independent certification of the manufacturers of EWI systems, and the installers themselves may also be accredited with the PAS2030 or an equivalent quality management system.

On all projects in Merthyr Tydfil, the system designers, site agent and client (MTCBC) will send their technical representatives to provide additional monitoring and oversight of the installers, to make sure systems are installed as intended and in accordance with their BBA certification.

**Mineral wool, EPS and Phenolic Board**

The insulation material fitted in council-led schemes in Merthyr Tydfil will either be made from mineral wool or EPS (Expanded Polystyrene). Mineral wool offers substantial protection against fire since it is non-combustible (Euroclass A1).

EPS is an organic compound so it would burn in much the same way as wood, for example, with if came into contact with fire - it would typically melt first**.**  In the case of EPS used in external wall systems, it tends to include a flame retardant such as polymerised bromide to decrease its flammability.

Phenolic Board is a high-performance dense phenolic foam sandwiched between two laminated face layers.

**EPS and Phenolic Board are fully enclosed within the external wall finish**

If there was a fire in the property, EPS and Phenolic Board would melt within its cement-based plaster enclosure and the mechanical fixings would support and hold the structure of the EWI in place for a significant period of time.

EPS Boards and Phenolic Boards would not act as a fire accelerator. EPS boards and Phenolic Boards are classified as Class 0 – Low Risk. Furthermore, in recent years where there have been incidents of house fires with EPS insulation installed, the fabric of the structure and insulation remained intact - providing evidence of the safe nature of the system.

**Context**

Finally, it is worth remembering that all council-led external wall insulation schemes have been delivered to single occupancy dwellings and the occasional set of three or four flats. This is fundamentally different to Grenfell Tower, which was a 24-storey tower block containing some 120 flats and accommodating over 400 residents.