Fire Safety in buildings – Valencia and Grenfell similarities

Carles Ibáñez

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What happened in Valencia?

What happened in Valencia?

- The fires started at a kitchen.
- The fire engulfed 138 dwellings
- 450 residents lost their homes
- 10 casualties reported.

Some data:

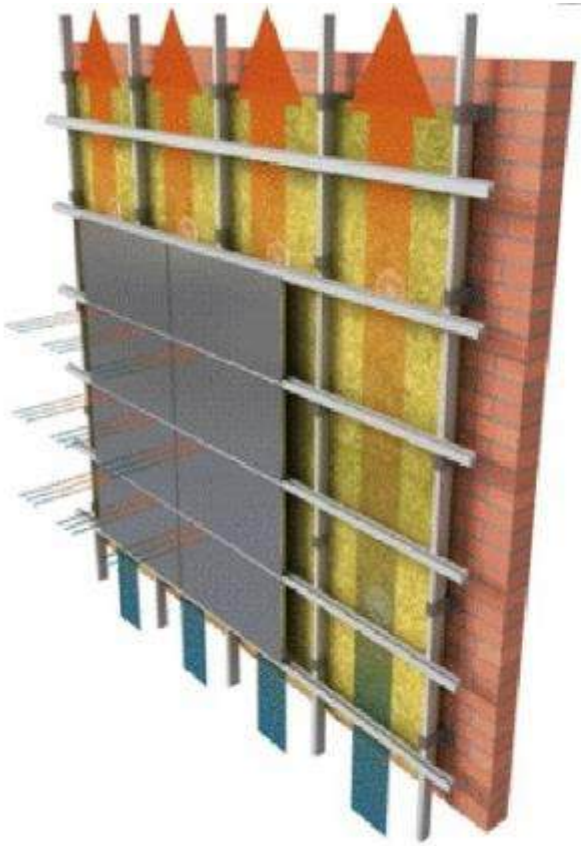
- The building was built in 2008 but the project was approved in 2005, before the CTE of 2006.
- CTE introduced numerous fire safety measures.

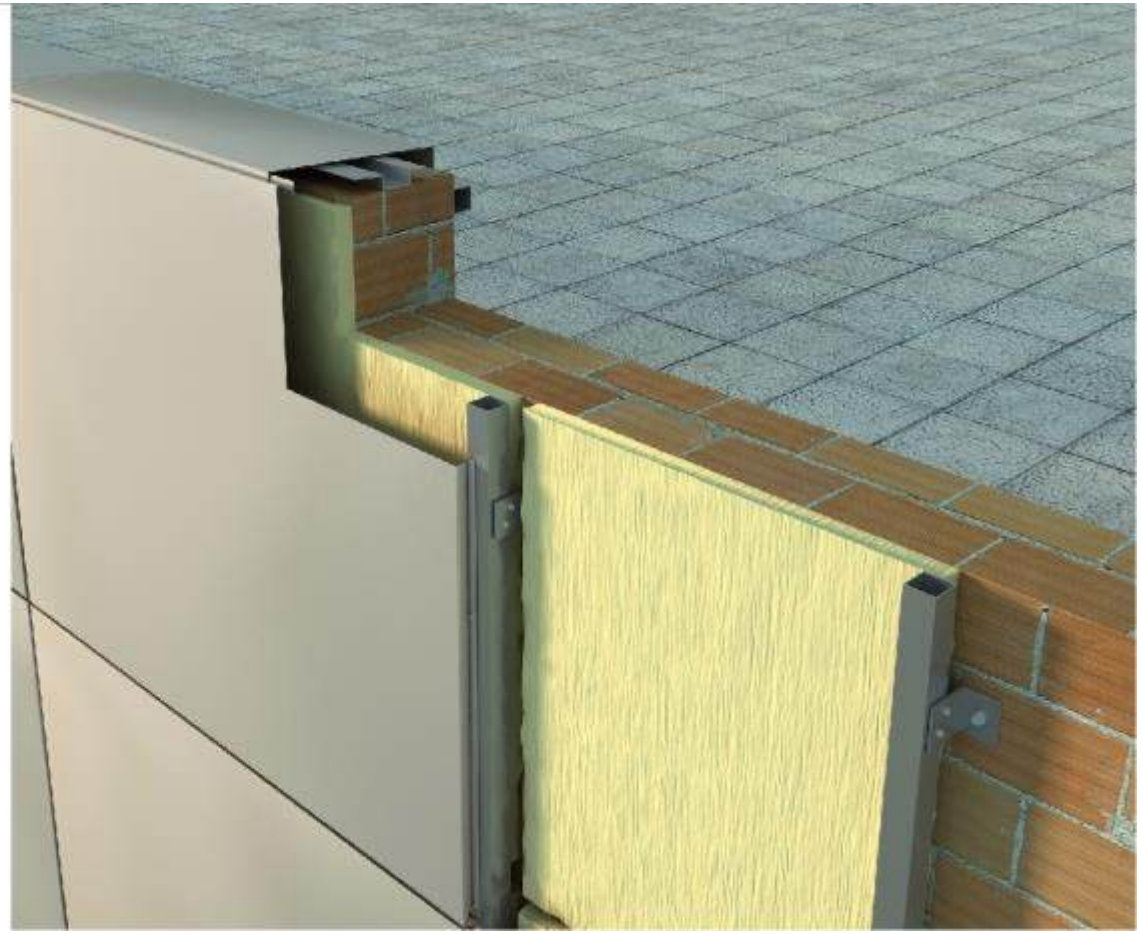
Grenfell

- Grenfell Tower was built in 1974, had 24 floors and 129 apartments.

- Between 2014 and 2016 the façade was renovated applying a ventilated cladding system with PU as insulation boards. The airgap was equipped with fire barriers and windows also replaced.

Same façade with PU in Grenfell and MW in Valencia





Grenfell

July 14th 2017 a fire destroyed the Grenfell Tower in London.

The fire started at the kitchen in an apartment on the 4th floor.

The fire ignited the apartment and spread through the window of the kitchen to the façade.

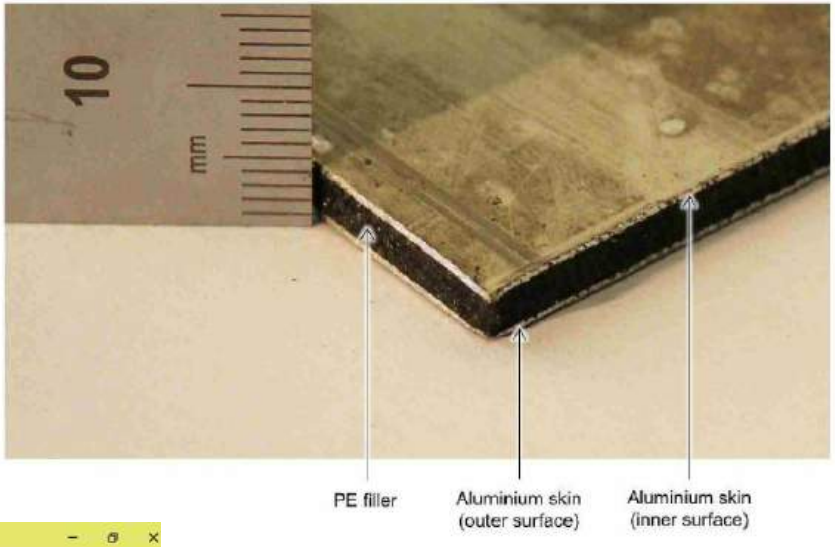
People stayed in their apartments due to the building policy.

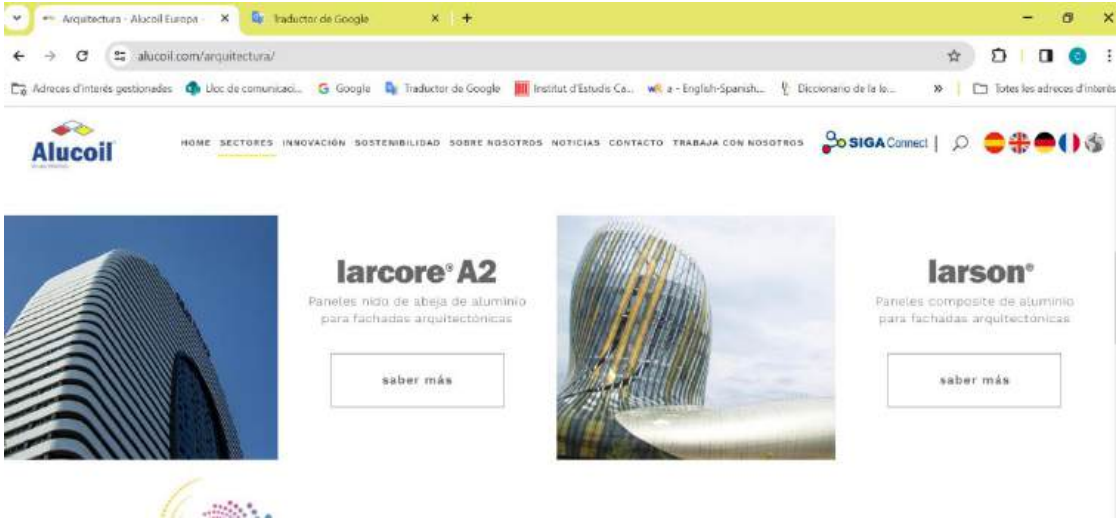
This catastrophic event resulted in 71 fatalities.

Grenfell Tower Inquiry

ACM Cladding System available:

- Reynobond PE – Euroclass E (No fire classification provided testing due to enquiry)
- Reynobond FR (PE+FR) – Euroclass B-s1, d0
- Reynobond A2 core

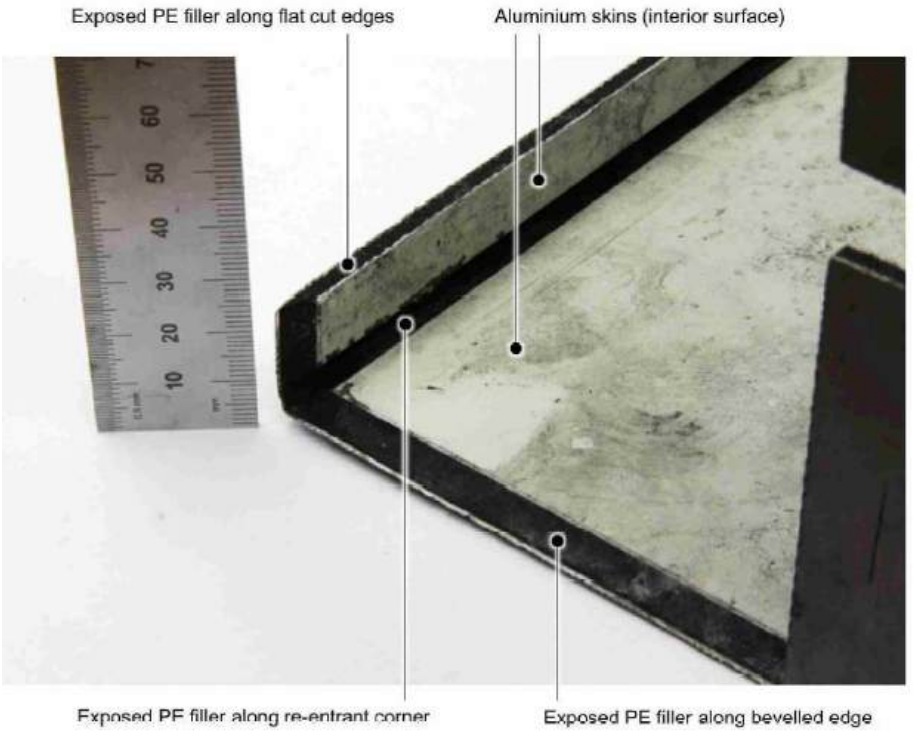




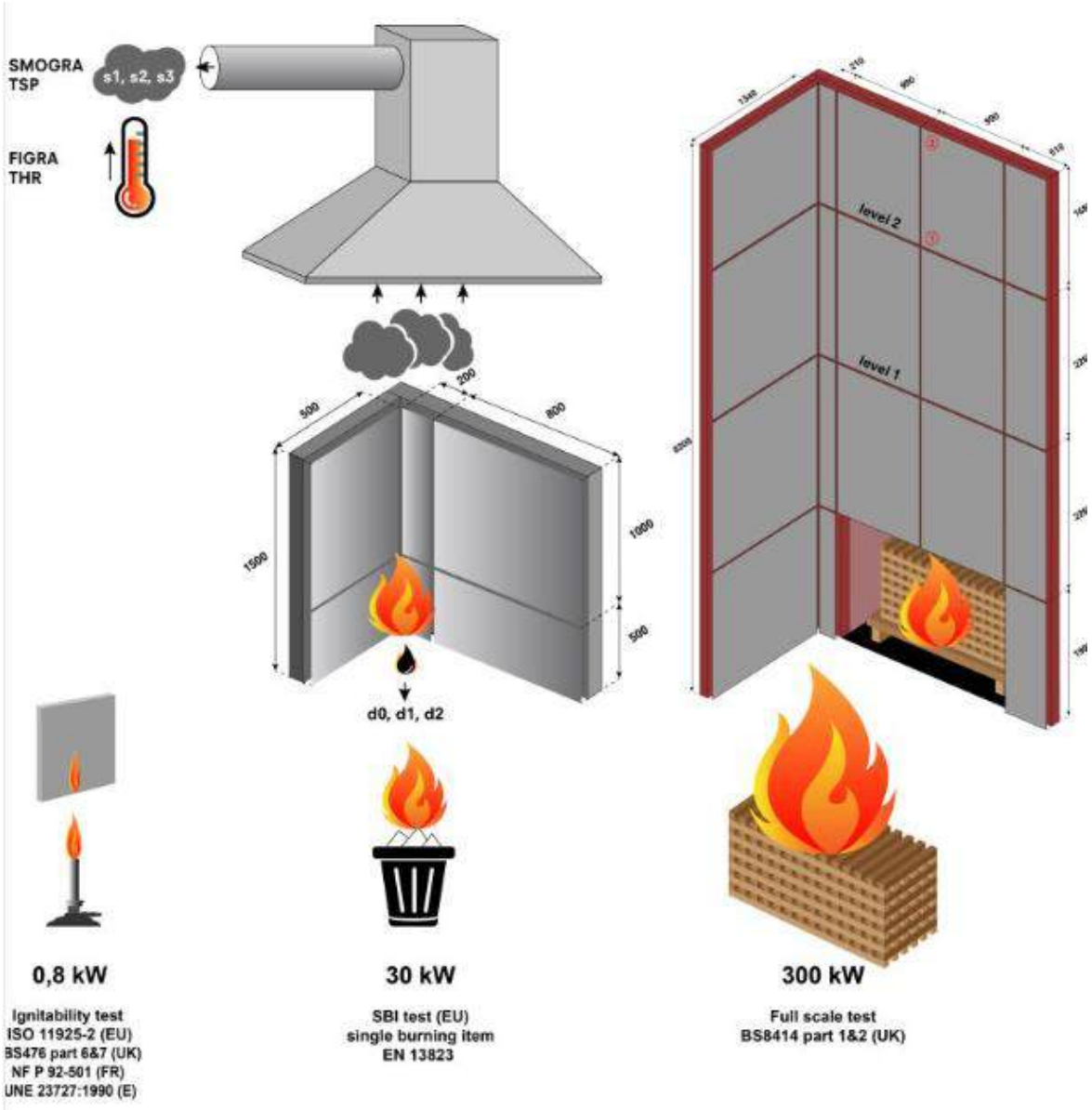
Grenfell Tower Inquiry

- The fire penetrated into the back of the cladding cavity and ignited the polyethylene filler material within the aluminium composite material (ACM).

- The primary cause of rapid and extensive external fire spread was the presence of polyethylene filled ACM clads installed during the retrofitting. Multiple cut edges were directly exposing the PE filler material.



Diferent scale tests required in construction



Thanks !

Any questions, please go ahead.