



Weatherline® Fire System Options For External Walls

In 2020 the Ministry of Business, Innovation and Employment (MBIE) released updated fire safety guidance for external wall cladding systems.

MBIE Guidance Revision 2: 2020 aims to provide greater clarity around external wall cladding systems fire performance, how to interpret New Zealand Building Code (NZBC) fire performance requirements and whether international alternative fire tests and evaluation methods are suitable for use in New Zealand.

GIB Weatherline® Rigid Air Barrier Systems offer a range of locally tested options to help meet the updated guidelines as well as the requirements of NZBC Clauses C1-C6 – Protection from Fire.

Which GIB Weatherline® Fire Rated System is most suitable for my project?

Selecting the most suitable GIB Weatherline® fire rated system for your project is typically driven by the height of the building and the resulting NZBC fire performance requirements.

Multi-Level Buildings Under 10 Metres:

NZBC Acceptable Solution C/AS2 and the associated MBIE Guidance Revision 2: 2020 does not contain specific requirements for external walls and cladding systems for multi-level buildings under 10 metres in height.

Winstone Wallboards recommends specification GWTLE 30 for timber framed external walls unless a fire resistance rating (FRR) above 30 minutes is required.

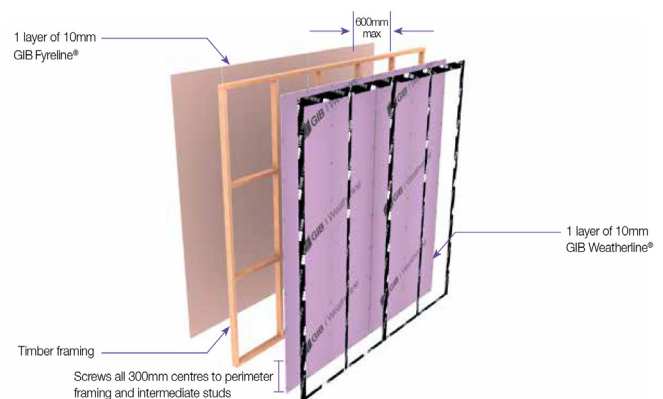


Figure 1: GWTLE 30

Multi-Level Buildings Between 10 and 25 Metres:

NZBC Acceptable Solution C/AS2 and associated MBIE Guidance Revision 2: 2020 suggests combustibility limits on cladding materials, including the rigid air barrier. There are no additional requirements for the supporting framing to be protected or to have an FRR.



GIB Weatherline® has an A1 non-combustible classification and can be used as a cladding substrate on timber or steel framing. Unless a higher FRR is required, Winstone Wallboards recommends a 60 minute FRR using specification GWTLE 60a for timber framed external walls, or GWSE 60 for non-loadbearing steel stud framing, additionally clad with compliant cladding materials.

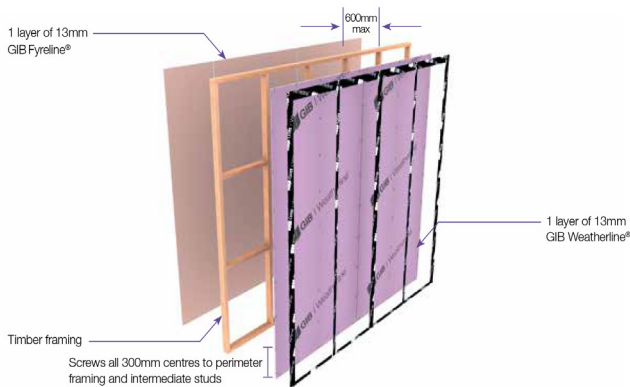


Figure 2: GWSE 60

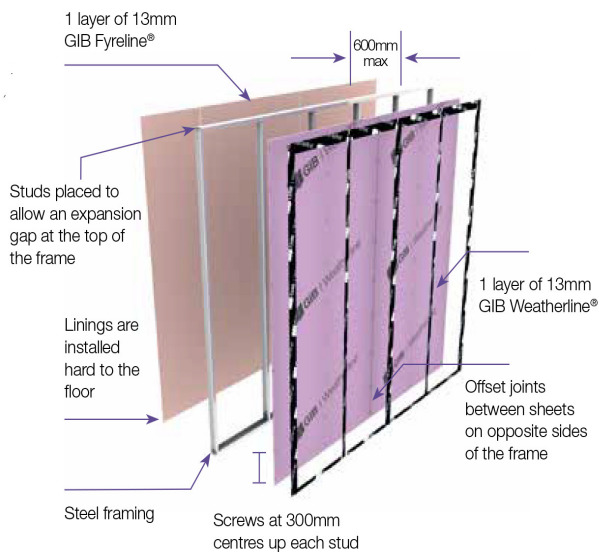


Figure 3: GWTLE 60a

Multi-Level Buildings Over 25m in Height

NZBC Acceptable Solution C/AS2 and associated MBIE Guidance Revision 2: 2020 suggests combustibility limits on cladding materials, including the rigid air barrier. As one means of compliance, the MBIE Guidance states that timber framing may be used if protected with a robust

limited combustibility lining that can be shown to prevent framing char for 30 minutes when exposed to the test conditions of AS 1530.4.

GIB Weatherline® has an A1 non-combustible classification and can be used as a cladding substrate on timber or steel framing. 13mm GIB Weatherline® is a robust non-combustible rigid air barrier, and although some framing char can be expected immediately above the fuel source when tested in accordance with BS 8414, recent research shows that this does not contribute significantly to façade fire spread.

Unless a higher FRR is required, Winstone Wallboards recommends a 60 minute FRR using specification GWTLE 60a for timber framed external walls, or GWSE 60 for non-loadbearing steel stud framing, additionally clad with compliant cladding materials.

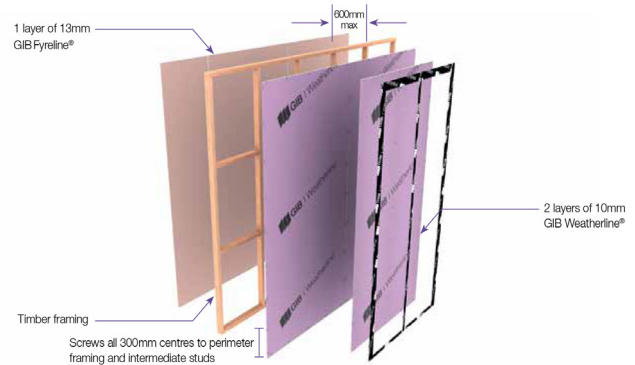


Figure 4: GWTLE 60b

Requirements can vary depending on your locality and Building Control Authority. To achieve compliance with the current MBIE Guidance provisions for prevention of char, specification GWTLE 60b can be used.

Alternatively, compliance can be achieved if the complete external wall is subjected to medium or large-scale fire testing. For tested systems with a 13mm GIB Weatherline® substrate see www.gib.co.nz/weatherline

For more information on GIB Weatherline® Rigid Air Barrier Systems refer to GIB Weatherline® technical literature available at www.gib.co.nz/weatherline or contact the GIB® Helpline 0800 100 442.