

NOW MANUFACTURED WITH ZERO BROMINE CONTENT

# Topglass® Fire Retardant Sheeting

The Topglass® Fire Retardant (FR) range is designed and supplied as fire and smoke retardant natural lighting systems for use in commercial and industrial buildings.

Alsynite offer two grades of Fire Retardant translucent roofing:

## Topglass® FR50

### Topglass®/Topclad™ FR50

BRANZ tested to ISO 5660; AS/NZS 3837 cone calorimeter testing in accordance with NZBC verification method C/ VM2 appendix A; BRANZ Type tested ISO 9705 room test; Building Code (NZBC) Group 3 classification.

## Topglass® FR60

### Topglass®/Topclad™ FR60

BRANZ Tested to ISO 5660; AS / NZS 3837 cone calorimeter testing in accordance with verification method C/VM2 appendix A; Building Code (NZBC) group number 2 classification.



  
**ALSYNITE®**

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# Alsynite Topglass® / Topclad™ Fire Rated (FR) Regulations and Products Explained

Changes to the building code Clauses C1-C6 Protection from fire have meant significant changes to the fire safety specifications for interior and exterior surface linings.

## Acceptable Solutions – Verification Method

The new acceptable solutions have been published as stand-alone documents, one for each risk group. These are used to group together occupancies or buildings with a similar fire risk. Each acceptable solution has the same format and section numbering to aid navigation, but only contains requirements relevant to the particular risk group. The group requirements are in table 4.1 of each document. Most conventionally designed buildings can be specified using the acceptable solutions, however where more complex buildings are proposed the new verification method [C/VM2] can be utilised.

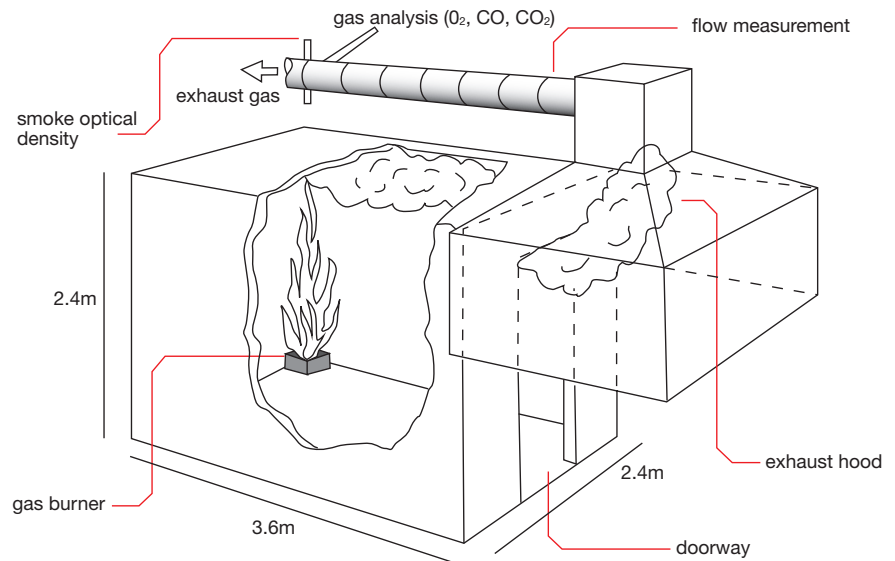
## NZBC Group numbers

These new regulations that became mandatory in April 2013 now mean only Building Code (NZBC) group numbers apply to fire properties of surface linings. Group numbers are scaled from one to four (worst case). Therefore a group one rating would contribute very little to flame spread, whereas a group 4 rating would exhibit a rapid flame spread.

## Alsynite FR Products

**Alsynite Topglass®/Topclad™ FR50** has been extensively tested using the cone calorimeter ISO 5660 and AS/NZS 3837 test method and also the full scale ISO 9705 room test. This extensive testing utilises a gas burner exposing the sheeting to 100kw for 10 minutes, and then 300kw for a further 10 minutes until flashover is reached. **Topglass® FR50 achieves a Building Code (NZBC) group number 3 in both these tests.**

Topglass® FR50 has also recently been tested to BS 476.



The full-scale ISO 9705 Room Test

Alsynite also have available **Topglass®/Topclad™ FR60**. This grade has been cone calorimeter tested to ISO 5660 and AS/NZS 3837 and achieves a Building Code (NZBC) group number 2 rating.

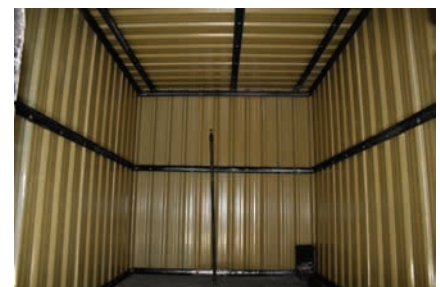
## [ ASEA ]

Smoke production is only regulated in locations without sprinklers where group numbers 1 or 2 are required. It is not needed for other locations requiring group number 3, where the risk and smoke hazard is dominated by the burning contents, rather than the surface linings.

Both **Topglass® FR50** and **FR60** do not however achieve an [ S ] in conjunction with the group number. This is a significant factor, as the average specific extinction area [ ASEA ] requires smoke levels to be no more than 250m<sup>2</sup>/kg. Only products that carry the group number in conjunction with the [ S ] are therefore acceptable in these areas. Refer to Alsynite Industrial Polycarbonate FR 1-S for this.

**Alsynite fire rated sheeting is available in all grades, profiles and lengths.** Care must be exercised when ordering to ensure the correct product meets the design criteria.

**Please contact Alsynite if any or further clarification is required.**



The gas burner exposes the Topclad™ 5-rib 3050gsm sheeting to 100kw for 10 minutes, and then 300kw for a further 10 minutes until flashover is reached.

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