

related test method	EN 1364-1: 1999 Fire resistance for non-loadbearing elements – Part 1: Walls
subject	Testing a wall containing a window comprising double glazing (one panel insulated glass (exposed face) + 1 panel uninsulated) when the outer uninsulated glazing fails
reference of original query	TC2 N280rev1 Helpdesk 2001-07

Problem

When testing double glazed windows in walls according to EN 1364-1, particularly windows with a fire resisting class on the fire exposed face and a float glass on the un-exposed face, the unexposed thermocouples shall be mounted on the outer float glass.

The situation may arise where the float glass may fail and fall out (completely or incompletely). In this case it is not possible to continue to measure surface temperature or other failure criteria as required by the standard.

Recommendation

This is a question of what defines the unexposed face. Normally, the unexposed face thermocouple attached to the outer glazing would be used to measure unexposed surface temperature. In the case where the outer glazing fails, the unexposed face thermocouples would be lost.

EGOLF members shall adopt the following rules.

Where the glazing fails and the unexposed face thermocouples are lost, the roving thermocouple shall be used.

Additionally, once the outer glazing has failed, the unexposed face shall be redefined for both insulation and integrity measurements and shall, in part, include the exposed insulating glass.

The redefined unexposed face to be applied shall depend upon the distance between the two glass panes, i.e.

If distance between panes is $< 30\text{mm}$ then the unexposed face shall be taken as given by drawing 1.

If distance between panes is $\geq 30\text{mm}$ then the unexposed face shall be taken as given by drawing 2.





Drawing 1

Drawing 2

Thereafter, the normal criteria to be applied for unexposed face shall be undertaken.

In the case where the glazing fails incompletely, if the flames visibly protrude from the remaining unexposed face then its integrity shall be considered to be failed (see the sketch below of flaming behind the remains of the glass).

