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Building Chemistry and Fire Safety Research Group
REACTION TO FIRE, FACADE FIRE PERFORMANCE

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FIRE TESTING
OF BUILDING MATERIALS

Reaction to fire in accordance with EN 13501-1 – EUROCLASS system

Full classification of reaction to fire for building products of classes A1-F, A_{1-FL}-F_{FL}, A_{1-L}-F_L.

Tests according to standards:

- EN ISO 1182 "Non-combustibility test",
- EN ISO 1716 "Determination of the gross heat of combustion (calorific value)",
- EN 13823 "Building products excluding floorings exposed to the thermal attack by a single burning item",
- EN ISO 11925-2 "Ignitability of products subjected to direct impingement of flame. Part 2: Single-flame source test",
- EN ISO 9239-1 "Reaction to fire tests for floorings. Part 1: Determination of the burning behaviour using a radiant heat source"

Non-combustibility and heat of combustion tests are applicable for products - classes A1 and A2

SBI test - for classes A2, B, C, D

Single-flame source test - for classes B, C, D, E, F

Fire resistance of non-loadbearing walls

Fire resistance tests of non-loadbearing walls in accordance with standard EN 1364-1 to determine:

- Integrity (E),
- Insulation (I).

Based on the test result, a fire resistance classification report is issued in accordance with EN 13501-2.

Fire testing of lintel beams – calculation method

Classification of lintel beams for fire resistance (R), on the basis of simplified calculations using the 500°C, isotherm method, for fire resistance (REI) of lintels occurring as wall elements, on the basis of tabulated values and on the basis of obtained calculation results, according to EN 1992-1-2:2008/NA:2010P.

The spread of fire through external walls

Determination facade fire performance of non-load-bearing exterior cladding systems of suspended facades and seamless thermal insulation systems installed on the facades of buildings and exposed to external fire under controlled conditions.

Facade fire performance according to PN-B-02867:2013-06



Poland's first LARGE SCALE TEST of exterior walls of buildings according to BS 8414-1:2020-04
„Fire performance of external cladding systems. Part 1. Test method for non-loadbearing external cladding systems applied to the masonry face of a building“.



AB 054

Fire testing of building materials allow continuous safe improvement of products to provide the customer with a safe home and peaceful sleep for many years.

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