



FIRE RESISTANCE TESTS

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During a fully developed fire in a room, the heavy wooden door holds remarkably well. The glass wall is made of windows embedded with layers of fire resisting gel. They crack, but don't collapse. The question is, will the fire stay under control until the Fire Department arrives?

Will the floor, walls and ceiling hold out against the fire? Can the construction as a whole remain intact? What is the temperature rise in adjoining rooms and does the fire propagate beyond the bounds of the construction?

These are essential questions once a fire has been able to fully developed inside a room. Efectis Nederland provides the crucial answers related to 'resistance to fire' testing.

TESTING

Almost every European country has a testing facility with a furnace capable of performing fire tests. Efectis can carry out these tests on almost every scale. Only few testing organisations have the possibility to test with furnace dimensions of eight meters long and four meters wide. It enables tests with floors of eight by four meters and walls of four meters in width and five meters in height. During fire tests Efectis is able to control all process parameters. This gives the possibility to carefully imitate 'fires' with temperatures of up to 1350 degrees Celsius. All fire curves according to different test standards can be simulated. Accurate registration of the specimen conduct is crucial. With sometimes more than a hundred thermocouples at all relevant locations in and around the test specimen, data acquisition meets all conceivable standards.

STANDARDS

The starting point for the fire resistance tests that take place at Efectis in Bleiswijk are the European Standards (EN), specified for building components. Nevertheless, the world of approvals and standards remains complex, especially when companies want to have products tested for approval in several countries. Efectis is happy to advise on standards and test configurations that provide the best match for your export needs. We naturally take into account the required CE marking.

SPECIALTIES

In total, approximately 250 large-scale tests are carried out per year at Efectis in Bleiswijk. Many of these are tests for the building construction with 'standard fires' according to an EN standard.

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But offshore structures are also regularly offered for tests, for example according to the 'hydro-carbon' fire conditions. We offer the exceptional ability to perform tests for fire in tunnels according to the 'RWS' fire conditions, with temperatures of up to 1350 degrees Celsius. As a specialist in testing large and complex structures, Efectis does not have to say 'no' quickly.

TO COMBINE KNOWLEDGE

Performing out many special tests provides an enormous amount of knowledge. For example, about the consequences of variations in the configuration. In principle, any adjustment to a configuration means: testing again.

Under certain conditions it may, for example, be possible to combine the test results of a door and a window in order to evaluate the performance of a door with a window in it.

What does a two centimetre thicker floor mean for resistance to fire? What influence has a wooden window frame, in comparison to a steel one, on the resistance to fire of a door?

From our knowledge of testing conditions and in-depth expertise of the performance of combined materials, we are able to put our customers firmly on the right track.

We also have the ability to estimate the value of foreign tests with regard to acceptance on the Dutch market. Efectis Nederland knows like no other what is and isn't allowed in this respect – and how to optimally make use of its existing knowledge.

Efectis is able to perform an assessment according the European EXAP standards. This assessment can lead to a classification document.

QUICK AND CLEAR

Efectis Nederland offers its customers swift action and reliability.

In most cases we are able to test constructions within two months.

The report follows within six weeks of the test – guaranteed and even faster if the cooperation is optimal.

RELIABLE GUIDE

Which tests do you have to perform for CE marking or acceptance abroad?

How should you go about it when you change your product?

How can you optimally make use of existing knowledge and test results? The standardisation for resistance to fire is complicated.

In order to conquer foreign markets, a partner that is up to speed with all standards is vital. Such a partner knows how to find the quickest and most efficient way towards market admittance.

Efectis is involved in European standardisation processes through various CEN-commissions and adjoining work groups. We show our customers the way in Europe and guide them optimally through the testing process.

In this way, Efectis offers the shortest route to a result.



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