

| | |
|-----------------------------|---|
| related test method | EN 1363-1 General requirements for fire resistance tests |
| subject | Controlling the furnace temperature in the initial stages of a fire test |
| reference of original query | TC2 N377 |

Problem

A note to EN 1363-1 clause 5.1.2 states:

'Whilst no tolerances are given for compliance with the temperature/time curve during the first five minutes of the test, it is expected that the laboratory shall attempt to follow the prescribed relationship as closely as possible during that period such that the difference between the integrals of the prescribed and achieved curves is kept to a minimum at any period during the test.

As a consequence of the rapid temperature increase in the first five minutes of the test, furnace operators may experience difficulties to control the furnace such that compliance with the tolerances that apply after this period can be achieved. To provide additional information to assist in avoiding this problem one or more thermocouples of conventional type (e.g. 3 mm stainless steel sheathed) may be used to provide supplementary data for the purpose of furnace control. With the benefit of experience of the comparison between them and the plate thermometers, closer compliance of the plate thermometer temperatures with the specified temperatures may be achieved by furnace operators and control systems.

However, compliance with the prescribed temperature/time relationship during any period of the test is on the basis of the information given by the plate thermometer.'

This note was included to assist operators who were not experienced in using the plate thermometer for furnace control.

Recommendation

It is considered that laboratories now have sufficient experience in using the plate thermometers and it is recommended that it is not necessary to follow the recommendation in the note to EN 1363-1 clause 5.1.2.

