

A series of five tests of surface linings have been carried out in a large room, 6.75 m by 9 m and 4.9 m high, at SP in Borås, Sweden.

The test series was a part of a joint Nordic five research programme, EUREFIC and was performed in cooperation with VTT in Finland.

This report is a short summary of the test and it does not present all test measurements. The observations during the tests and some results on heat release rates, smoke production rates and some temperatures are given. A complete report, with all measurements, will be published later.

The purpose of the test series was to compare the result from tests in small scale, in the standardized Room/Corner Test (ISO/DIS 9705 or NT FIRE 025) with tests in a large room to see if the products behave in the same way in the different tests, or if there are scaling effects that cannot be seen in smaller scale.

The tests were performed according to the same principles as the above standard with surface linings mounted in the ceiling and on the walls and a gas burner placed in a corner. The heat output was 100 kW for 10 minutes, 300 kW for 10 minutes and then 900 kW.

From the test series it was obvious that the larger room is a scenario less critical than the standard Room/Corner Test. The heat output has to be higher for a progressive flame spread to appear. It was also obvious that in a large room a flash-over situation in terms of temperature and irradiance at the floor level can appear without any flames emerging out the door.