

*FIRE BEHAVIOUR OF MATERIALS INSTALLED IN HIDDEN AREAS
(RADIANT PANEL TESTS UNDER STANDARD AND ENLARGED TEST
CONDITIONS)*

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The radiant panel test has been developed to assess the behaviour of thermal-acoustic insulation materials used in hidden areas. Many other materials or equipments used in these areas (bundled wires, cable ties, brackets and other fitting systems, insulated air ducting, various housing materials) are not submitted to this test which is more severe than the test required by the rule. The aims of this study were to test these other materials under the test conditions required for thermal acoustic insulation materials and to evaluate the interest of the Radiant Panel Test method for these materials. Test conditions have been enlarged using increased heat flux level of the Radiant Panel Test, electrical sources of ignition and pre-heating (various times of radiant panel preheating and thermal chamber conditioning before test) to simulate a developed fire conditions or nominal T° of wires.

This study has pointed out the critical behaviour for most of the cable ties and brackets used for bundled wire fitting (complete combustion with very important after flame time (often around 200/300s and up to 750s)). For the other types of materials, under the applied test conditions, the Radiant Panel Test does not seem discriminating enough neither under the standard test conditions nor under the enlarged test conditions..