

# Experimental assessment of the suitability of monitors and tv-screens for placement in evacuation routes

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The fire behaviour and the fire growth rate resulting from a known minor ignition source below monitors were investigated through a series of experiments. The experimental series consisted of various sizes and brands of monitors. The ignition source was Methenamine pills and tablets or a propane gas burner for heavily flame retarded monitors. The ignition source was placed both at the centre and corner of the monitor to compare different possible ignition scenarios and fire growth rates. Measurements were done with respect to heat release rate and visibility.

Further tests were conducted to establish the energy content and ignitability in various components in the monitors. These results were done using bomb calorimeter and direct exposure to a small flame. The composition of the screens was also recorded and compared.

Based on the findings, it is recommended to implement test requirements for the type of screens that are to be used in evacuation routes and other places where smoke is unwanted. The reason for this is that there is such a wide variety of screens, both in composition, level of flame retardants added and in size, so that allowing any monitor will provide an enormous uncertainty in the safety of the occupants.

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