



Meeting **Life Safety** and **Fire Fighting** objectives with **BS7346-6:2005**



FIRE TEST CERTIFICATE

Office: Newcastle-upon-Tyne

Date: 2 August 2006

This ultimate

fire survival
system

certifies that the undersigned Surveyor's test of the cables at the above address, works between the 13th June and 22nd July 2006.

Testing of the undernoted cables :

Reference	Cable Size	Rating
CC2H10	2 core, 10 mm ²	750
CC4H6	4 core, 35 mm ²	750
CC4H25	4 core, 25 mm ²	750
CC1H50	Single core, 50 mm ²	750
CC1H240	Single core, 240 mm ²	750
CC7H2.5	7 core, 2.5 mm ²	750

Scope of survey:

Test equipment found to be in accordance with BS 7346-6:2005 with the following test procedure:

BS 7346-6:2005

Components for smoke and heat control systems.

Components for cable systems.

Components for fire fighting systems.



Lloyd's Register FIRE TEST CERTIFICATE

The need for change

An overhaul of BS6387 has been needed for some time:

"The British Standard 6387 should be re-written urgently."

"BS6387 is restrictive in that it does not cater for cable sizes with an overall diameter greater than 20mm".

Mr. K. Elves, Principal Engineer, Westminster District Surveyor's Service. Quotations from Electrical Review Magazine, February 1999.

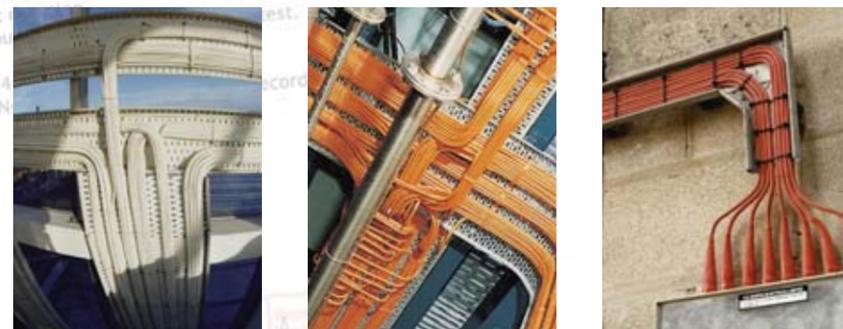
"For more years than I care to remember, I have readily accepted the credibility of any product that has the approval of the British Standards Institute... After witnessing a test carried out under BS6387, my confidence has been severely brought into question."

"BS6387... a test designed to pass products not a test that products have to pass."

"... scrap or substantially modify BS6387."

Mr. Frederick H. Tingle, Former Senior Fire Safety Officer, Local Authority Fire Brigade and Independent Fire safety Consultant. Quotation from Institute of Fire Prevention Officers (IFPO) Journal (1999).

... directly to a flame temperature of 830°C (-0°C + +40°C) for 2 hours duration.



It has long been established that the BS6387 Standard (named, "Fire performance of cables required to maintain circuit integrity under fire conditions") was in need of a major overhaul and even replacement. Indeed, in BS5839-1:2002 (Fire alarm Systems) BS6387 has been omitted from the normative references.

Since BS6387 was composed, buildings have become more ambitious in terms of height, size and complexity. Fire engineered solutions are used to ensure active protection systems are dependable. The functionality of these systems rely on the integrity and continuity of their electrical supplies, and their associated signal and control circuits.

BS7346-6:2005. Components for smoke and heat control systems (Part 6. Specifications for cable systems).

Published March 2005.

A summary of BS7346-6:2005

Cable system requirements are specified to meet three performance objectives:



Life Safety systems
LS (30 minutes)



Life Safety systems
LS (60 minutes)



Fire Fighting systems
FF (120 minutes)

The test includes an integrated test methodology:



- Radiation by direct impingement.



- Mechanical impact directly onto the cable.



- A water jet is applied directly onto the cable.

All the elements of the test are carried out on a single sample of cable.



The standard also provides guidance on meeting fire engineering objectives with cables for both Life Safety and Fire Fighting Equipment.

What is available within the Pyro Mi range of products?



The Pyro Mi range of cables have been tested to the requirements of BS7346 test methodology. This has been witnessed and certified by Lloyd's Register.

Pyro Mi has achieved the highest test criteria of Fire fighting 120 minutes.

The Pyro Mi solution is a system tested to BS7346-6:2005 including cable clips.

Conclusion:

BS7346 delivers cable performance solutions to specific fire engineering objectives using single sample testing.

The standard's test methodology incorporates the ability to measure cables greater than or less than 20mm overall diameter.

The Pyro Mi cable system for power, signal and control circuitry has been tested and certified to the new standard.



www.pyrotenax.co.uk

www.tycothermal.com

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