



ASFP E-BULLETIN

This news bulletin is brought straight to your desktop by the Association for Specialist Fire Protection (ASFP).

It provides brief, easy to digest information on current 'built in' fire protection advances, developments and issues.

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Issue 11

BEWARE OF FIRE TEST REPORT WORDING

When it comes to the issue of fire, how you interpret the validity of a fire test report or assessment certification could make the difference between whether the fire protection measure in question succeeds or fails in its objective.

The process of fire testing is a vigorous and often very costly endeavour and common sense dictates that not all potential configurations, to which a product or system is to be used, can be realistically tested. In such situations a range of tests may be carried out in different configurations, which in turn leads to an extrapolation of data contained in an assessment report.

Such comprehensive reports should not be confused with what has become known as the 'indicative' or 'ad-hoc' test. The ASFP, along with many Certification Bodies, are now very concerned at the growing indiscriminate use of such very limited test reports that may well appear to solve a difficult dilemma, but in reality give little more than the illusion of a solution that has no foundation practice.

To be clear, there is nothing wrong with any product manufacturer undertaking 'indicative' or 'ad hoc' testing as a way of observing and assessing how its products or systems may perform in conjunction with the type of configuration to which it may be used. However, as the test laboratory will often state in its report, the information gained is for the test sponsors benefit only and as such should not be used to demonstrate performance against the standard to which it would normally be measured. Nor should it be taken as a means to assess such a product or system against any regulatory requirement. Often, such tests are not conducted under the accreditation process and requirements of the United Kingdom Accreditation Service (UKAS) and may not have complied with the full requirements of the given Standard.

The ASFP supports third party product certification as the most appropriate way of demonstrating the performance of passive fire protection products in the market. Such certification is undertaken by independent bodies who verify the quality of the product. Third party product certification is the only way of providing architects, specifiers, enforcement authorities and building owners a high level of confidence that products are 'fit for purpose'.

Website: www.asfp.org.uk

FIRE-RESISTING DUCTWORK AND DAMPERS

A recently published 'Good Building Guide (GBG)' written by Norman Macdonald and Ian Stewart of ASFP member, **BRE Global**, illustrates the importance of correctly installing fire resisting ductwork and dampers. A critical weakness in the fire safety of any building can be the penetration of fire compartment walls and floors by building services such as cables, pipes and ductwork, including dampers. Potential fire spread via a ductwork system is of particular concern as it is designed to distribute air throughout the building. A fire attacking a system that is not designed and installed properly has the potential to spread fire, smoke and toxic gases rapidly to more than one compartment in the building.

The new publication entitled, *Installing fire-resisting ductwork and dampers (GBG 81)*, highlights the importance of correctly installing ducts and dampers in buildings. It provides some key fundamentals for the guidance of specifiers, manufacturers, contractors and approval authorities, together with useful references to more comprehensive documents. The importance of adequate testing, product quality, installation, maintenance and the critical role of third-party certification schemes are highlighted.



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FREEDOR WINS MAJOR FIRE SAFETY AWARD

Freedor, the world's first wireless, electrically powered free-swing door closer produced by ASFP member, **Fireco Ltd**, has won the best passive protection product award at the 2011 Fire Excellence Awards held to celebrate the best products, services and people in the fire safety community.

Accepting the award, Fireco MD Neil Purssey said, "Winning this prestigious award is a really fantastic achievement! The judges have recognised that Freedor is an exceptional product that combines innovation, functionality, good looks and the potential for fast, low-cost installation that we believe will quickly make it one of the market leaders!"

Installed at the top of a fire door and allowing the door to swing freely, Freedor allows users to hold open fire doors at any angle, confident in the knowledge that the door will automatically close when the fire alarm sounds. Freedor is simple, neat and unobtrusive, and it's easy to install in new buildings and retrofit.

Features include: Adjustable closing speed; Operates up to power size 4 (80kg fire door); Allows the door to be set at any angle up to 90 degrees and operate normally until activated; Suitable for right and left hand swing doors; Can be installed on the opening or closing side of the door; Night-time release facility; Fail-to-safe technology, with a minimum battery life of 12-18 months; Adjustable sensitivity; Designed to comply with BS EN 1154, BS EN 1155, BS 7273-4 category C.



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FIRE SAFETY TEAM SCOOP AWARD

ASFP member, **Exova Warringtonfire**, has won the Fire Excellence Award 2011 for best fire safety engineering work on the groundbreaking Whitechapel Station project, part of the landmark Crossrail project in London.

Submissions were judged 'for creative and well-researched alternatives to code compliant designs, which provide at least the same level of fire safety'. The company also had to provide evidence of how the engineer applied practical fire engineering principles and of the benefits achieved by the fire safety engineering approach to the design and use of the building.

The Crossrail Whitechapel Station project, due for completion in 2018, consists of extensively redesigning the station to integrate the new Crossrail platforms within the existing station served by the London Underground (LU) and Overground networks.

Fire engineers at Exova Warringtonfire were part of the project team, which decided on a revised design at the early stages, with a new ticket hall and concourse being provided directly over the existing London Overground platforms.

Since existing surface platforms would become underground platforms, fire safety was a fundamental issue. Exova Warringtonfire's team worked with the design team to provide ventilation routes around the perimeter of the concourse, which provided smoke ventilation to the platforms below. A detailed Computational Fluid Dynamics (CFD) analysis of smoke flow was carried out for the new design, which considered several fire scenarios varying in size and location.

Another essential aspect of the design was the provision for escape routes from the new and existing platforms. With six platforms and passenger flow data for morning and evening, as well as fires within different parts of the station to consider, a total of 16 evacuation scenarios were analysed. The work carried out by Exova Warringtonfire on the project allowed the implementation of a significant redesign within extremely short timescales, resulting in a station design that was operationally improved.

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FPL WINS RoSPA GOLD FOR SECOND YEAR

ASFP member, fire-resistant ductwork systems manufacturer **Fire Protection Ltd (FPL)**, has won the prestigious Royal Society for the Prevention of Accidents (RoSPA) Occupational Health and Safety **Gold** Award for the second year in succession.

This year's award was presented to Ian Davidson of FPL, at a special ceremony at the Hilton Hotel in Birmingham and comes after the company had won three successive RoSPA **Silver** Awards between 2007 and 2009.

RoSPA launched its awards programme 55 years ago. The scheme looks not only at accident records, but also the entrant's over-arching health and safety management systems, including important practices such as strong leadership and workforce involvement.

The RoSPA Gold Award typically involves entrants demonstrating excellent occupational health & safety management systems and culture, a rigorous approach to occupational health and high levels of compliance, with control measures for principal risks, below average and reducing rates of error, harm and loss, as well as no fatal or major injuries due to employer negligence and no significant enforcement issues.

David Rawlins, RoSPA's awards manager commented "Fire Protection Limited has shown a commitment to protecting the health and well-being of its employees and others. Organisations that set and achieve such targets deserve to be recognised and that's where the RoSPA Awards come in".

FPL Director, Alan Kinnear, praised the staff's endeavors. "Winning this award is the result of much hard work and is a fitting recognition for all the effort involved".

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INTERNATIONAL PAINT OPENS NEW FIRE PROTECTION LABORATORY

ASFP Member, **International Paint Ltd**, officially opened its testing laboratory for fire protection products on 7th June 2011, at its site in Felling, UK. The new facility will create 14 new jobs and safeguard a further 30 at the site.

This state-of-the-art Centre of Excellence for Fire Protection will improve International's ability to bring new products to the market, develop existing products and assist in securing new project work.

The facility was opened by Robert Taylor, Managing Director of International Paint, at a ceremony attended by customers and VIP guests, including senior executives of International's parent company AkzoNobel, the world's largest paint maker.



"This significant investment in fire protection is an indication of our commitment to research and technology, which we see as key to our future success in the protective coatings business," Taylor said.

The facility houses paint development labs, spraying facilities and office space. There are two screening furnaces, two 1.5m cube furnaces and one 4x3x2m floor furnace with the capability to test loaded beams to a variety of international test standards. It is anticipated that up to ten fire tests per day will be carried out.

This investment in resource builds on International Paint's intumescent fire protection coatings for structural steelwork, which include its **Interchar** range for cellulosic fires and its **Chartek** range for hydrocarbon fire exposures.

International expects the new fire testing lab to complement its current capabilities, which include structural and fire engineering experience, estimation expertise and knowledge of anti-corrosion performance.

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EUROPEAN TECHNICAL APPROVALS FOR FIRESTOP PRODUCTS FROM HILTI

In the Member States of the EU, Firestop systems for penetration seals of pipes and cables and construction joints within fire rated walls and floors can now be sold with a European Technical Approval (ETA) and therefore be provided with a CE mark. The new ETA, as a reliable and clear definition of the field of application, will definitely lead to a higher degree of safety in construction throughout Europe.

The basic underlying European test standards, as a pre requisite of an ETA, are very demanding and they describe a clear field of application. The principle 'what you test is what you get; based upon European wide agreed written field of application rules', applies to cable and pipe testing in the test Standard EN1366-3. Single expert judgement in assessment reports with minimum test basis no longer applies.

In EN 1366 part 4 for firestop joints, the additional maximum movement the joint is designed for is simulated in the fire test. The ETA offers additional safety and reliability of the installed products. This supports trust in the products and the applications, but also trust and confidence in the suppliers of the firestop products, giving a clear benefit to all building owners, risk engineers, specifiers and architects.

ASFP Member, **Hilti (GB) Ltd**, has taken early responsibility for placing the issue of ETA on the agenda. The company has also gone one step further. In addition to the fire tests, Hilti has successfully started to test additional attributes (such as acoustics), which are included in the ETA as an integral part of the approval and now tested according to a clearly defined standard.

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CPR UPDATE

The Construction Products Regulations (CPR) provides for the free movement of construction products across EU countries. Manufacturers who have had their products successfully evaluated against a European Technical Specification can CE mark them, demonstrating that the declared product performance has been obtained. European Technical Specifications are **either** European Product Standards **or** European Assessment documents, depending on the product.

Each European Technical Specification lays down the characteristics that the product must satisfy including the pan European test methods (such as fire tests) to measure them. They also include the system of 'Attestation of Conformity' for each product. These systems vary from, at the low end, system 4 (Manufacturer's declaration) through to, at the high end, system 1 (third party product certification).

Most fire resisting products are system 1, while most products claiming a reaction to fire performance are system 3 unless, for example, a flame retardant is added, in which case they also become system 1.

The CPR came into force in April 2011, but will not be effective until June 2013. CE marking will be **mandatory** if the product is covered by a European Product Standards, but **voluntary** if the product is covered by a European Assessment Document.

There are 'Simplified Procedures' which include the ability to evaluate performance without testing (deemed to satisfy) and the ability to share test results. For micro-enterprises and non-series production, manufacturers can use alternative procedures in certain cases. The ASFP and Notified Bodies (laboratories and certification bodies) can provide advice on the CPR.

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