

Loss Prevention Standard

LPS 1531: Issue 1.2

Requirements for the LPCB approval and listing of companies installing or applying passive fire protection products

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PARTICIPATING ORGANISATIONS

This standard was approved by the LPC Fire and Security Board and Expert Group D. The following organisations participated in the preparation of this standard:-

Association of British Insurers

Association of Building Engineers

Association of Chief Police Officers

Association for Specialist Fire Protection

British Automatic Fire Sprinkler Association

British Fire Protection Systems Association

British Rigid Urethane Foam Manufacturers' Association

British Security Industry Association

BT

Chief Fire Officers Association

Door & Hardware Federation

Electrical Contractors Association

Engineering Panels in Construction

EURISOL UK Mineral Wool Association

European Fire Sprinkler Network

Glass and Glazing Federation

Health & Safety Executive

Heating, Ventilation and Air Conditioning Manufacturers' Association

Home Office

Intumescent Fire Seals Association

Metronet

Modular & Portable Building Association

Risk Engineering Data Exchange Group

Royal and Sun Alliance

Royal Institution of Chartered Surveyors

REVISION OF LOSS PREVENTION STANDARDS

Loss Prevention Standards will be revised by issue of revised editions or amendments. Details will be posted on our website at www.redbooklive.com

Technical or other changes which affect the requirements for the approval or certification of the product or service will result in a new issue. Minor or administrative changes (e.g. corrections of spelling and typographical errors, changes to address and copyright details, the addition of notes for clarification etc) may be made as amendments (See amendments table on page 19).

The issue number will be given in decimal format with the integer part giving the issue number and the fractional part giving the number of amendments (e.g. Issue 3.2 indicates that the document is at Issue 3 with 2 amendments).

USERS OF LOSS PREVENTION STANDARDS SHOULD ENSURE THAT THEY POSSESS THE LATEST ISSUE AND ALL AMENDMENTS.

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FOREWORD

This standard identifies the evaluation and/or testing practices undertaken by LPCB for the purposes of approval and listing of products and services. LPCB listing and approval of products and services is based on evidence acceptable to LPCB:-

- that the product or service meets the standard
- that the manufacturer or service provider has staff, processes and systems in place to ensure that the product or service delivered meets the standard

and on:-

- periodic audits of the manufacturer or service provider including testing as appropriate
- compliance with the contract for LPCB listing and approval including agreement to rectify faults as appropriate

NOTES

Compliance with this LPS does not of itself confer immunity from legal obligations. Users of LPS's should ensure that they possess the latest issue and all amendments.

LPCB welcomes comments of a technical or editorial nature and these should be addressed to "The Technical Director" at enquiries@breglobal.co.uk

The BRE Trust, a registered charity, owns BRE and BRE Global. BRE Global and LPCB (part of BRE Global) test, assess, certificate and list products and services within the fire and security sectors. For further information on our services please contact BRE Global, Watford, Herts. WD25 9XX or e-mail enquiries@breglobal.co.uk

Listed products and services appear in the LPCB "List of Approved Products and Services" which may be viewed on our website: www.redbooklive.com or by downloading the LPCB Red Book App from the App Store (for iPhone and iPad), from Google Play (for Android devices) or from the Windows Store (for Windows 8 Phones and Tablets from 2014).

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1 SCOPE

This standard defines the requirements for companies installing or applying passive fire protection products. The purpose of the scheme is to assess whether the installing company can install passive fire protection products such that the systems meet the intended fire performance. Products covered by this scheme are given in the Appendices of this standard.

2 DEFINITIONS

2.1 Installing Company

A company that employs personnel to install passive fire protection products and systems.

2.2 Approved Installer

An Installing Company that meets the requirements of this standard.

2.3 CSCS (Construction Skills Certification Scheme)

A card given to workers who have proved their competence by achieving an appropriate NVQ or SVQ and demonstrate they meet the minimum standard of health and safety awareness (by passing the Health and Safety Test).

2.4 National Vocational Qualification (NVQ)

A qualification recognised by the Construction Industry Training Board.

2.5 Scottish Vocational Qualification (SVQ)

The preferred system of vocational qualification in Scotland.

2.6 Workmanship

The ability to install products within the stated tolerances specified to meet all required performance requirements.

3. REQUIREMENTS

These requirements are generic for all LPCB approved installers under this scheme and are supplemented by the product specific requirements given in the applicable Appendix.

An LPCB approved installer shall meet all the requirements in this section and any additional requirements listed in the relevant product-specific Appendix.

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3.1 Records and supporting documentation

The installing company shall maintain documentation and records of the activities that fall under the requirements of this standard. The purpose of the records is to demonstrate that:

- a) The requirements of this standard were met and;
- b) The passive fire protection system was installed such that the design requirements and applicable performance characteristics were met.

Specifically, the Installing Company shall maintain at least the following records;

- 3.1.1 General records for each contract undertaken including:
 - (i) Client.
 - (ii) Site address.
 - (iii) Start and finish date.
 - (iv) Project number.
 - (v) Names of the installers undertaking the work.
 - (vi) Project supervisor's name (where applicable).
 - (vii) Contract review.
 - (viii) Specific performance requirements requested for the passive fire protection systems (e.g. 60 minutes fire resistance, 30 minutes insulation etc).
 - (ix) Details of in-process inspections/checks carried out prior to, during and after the product's installation.
 - (x) Details of problems and any additional work carried out.
 - (xi) Certificate of Conformity, as defined in Section 3.10.
 - (xii) Method used to achieve compliance with 3.5.
- 3.1.2 Installed product records for each contract undertaken including:
 - (xiii) Manufacturer's name.
 - (xiv) Trade name of the product.
 - (xv) Product serial numbers, manufacturer's batch numbers or other appropriate method for product traceability.
 - (xvi) Product/system manufacturer's literature.
 - (xvii) Supporting test and/or assessment reports for the installed systems.
 - (xviii) Details of third party approval for the installed product, if any.
 - (xix) Any limitations in respect of the compatibility of the installed product with other elements of construction.
 - (xx) Manufacturer's instructions for the installation including any drawings they may have provided.

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3.2 Management of contracts

The Installing Company shall have procedures for the management of all aspects of contracts covered by this scheme.

3.3 Tools, measuring and test equipment

The Installing Company shall have procedures for ensuring all tools and/or instruments are maintained and calibrated as appropriate.

The Installing Company shall be in possession of the necessary hardware and tools, in good condition, to enable the product to be installed to meet the design requirements.

3.4 Selection of products for passive fire protection

The Installing Company shall maintain supporting evidence to show that the products used in the installation will meet the specified fire performance requirements.

The requirement for the selection of products and details of appropriate supporting evidence is given in the appropriate Appendix.

There are a number of methods that can be employed to ensure that the products used meet the intended design requirements. The most comprehensive evidence is by using products that are third party approved to an appropriate standard by a UKAS accredited Certification Body such as the LPCB. Such product approvals should also involve ongoing surveillance of the manufacturing process and regular product audits.

For some applications, there may be no option but to use products that do not carry third party approval. In such cases, evidence from third party testing and assessments and/or information supplied by the manufacturer may be considered, although the limitations of this type of supporting evidence should be recognised.

3.5 Storage and handling of products

The Installing Company shall have procedures for the storage and handling of passive fire protection products. These procedures should ensure that the products are stored and handled appropriately and in accordance with manufacturers instructions at all times.

3.6 Training

All personnel employed in the installation or application of passive fire protection products shall have adequate training for the function that they are required to undertake.

The minimum level of training and the supporting evidence required is detailed in the Appendices to this standard.

In all cases, records of the training received by all staff, including those employed on a subcontract basis, shall be maintained by the Installing Company. The training records shall,

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as a minimum, include details of the courses undertaken. The Installing Company shall hold copies of the course literature.

Training and competence records shall be maintained and regularly reviewed by the Installing Company to ensure that they are up to date and relevant to the passive fire protection products being installed.

It is recommended that, where possible, this training should be in the form of nationally recognised qualifications, for example NVQs or third party accredited training courses. However, it is recognised that the highest standard of training is often provided by the manufacturers of passive fire protection systems. It is also considered that 'on the job' training and experience are significant contributors to determining whether staff are adequately trained. All training, whether formal or 'on the job' activities should be documented to demonstrate that staff are adequately trained.

3.7 Use of sub-contract staff

If the Installing Company uses sub contract staff for the installation of passive fire protection products covered by this scheme, the installing company shall:

- Have procedures for the selection and management of sub-contract staff.
- Maintain records of all sub-contract work.

The Installing Company shall also ensure that:

- The quality of their equipment and workmanship is as required by this standard.
- All work undertaken by sub-contractors is reviewed and verified by qualified staff directly employed by the Installing Company to ensure that the requirements of this scheme are met. Records are to be maintained for all sub-contracted work carried out on behalf of the Installing Company. The Installing Company shall be responsible for all work that it sub-contracts.

3.8 Inspection of completed installation

The Installing Company shall undertake an inspection of the completed installation to ensure that the design criteria were met.

Records of the final inspection shall be held for auditing purposes.

3.9 Corrective and preventative action procedures

The Installing Company shall have corrective and/or preventative action procedures that apply to the installation process.

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3.10 Certificate of Conformity

The Approved Installer shall issue a Certificate of Conformity, supplied by the LPCB, for each contract covered by the scheme.

A copy shall be supplied to the client on completion of the installation, a copy shall be retained by the Approved Installer and a copy forwarded to LPCB.

4 ASSESSMENT PROCESS

4.1 Initial assessment

4.1.1 Notification of sites

On application, the installer shall provide to the LPCB details of a minimum of eight sites that demonstrate the ability of the Installing Company to install the applicable passive fire protection system.

Four of the sites shall be in-progress and the remaining four should be fully handed over, with the passive fire protection sufficiently accessible for technical evaluation. The sites shall demonstrate the ability of the Installing Company to install the passive fire protection systems under the subject of the certification application.

The LPCB will select a number of sites for the inspection process for the initial assessment. It is considered that two man days spent on suitable sites will be sufficient to assess the technical competence and workmanship of the applicant company.

If the passive fire protection products are applied remote from the final installation, then the assessment process will be a combination of inspections of the installer's works and sites where the products are installed.

4.1.2 Initial site inspections

The initial site inspections will, as a minimum, aim to assess whether:

- The installed passive fire protection system will meet the performance requirements of the contract.
- The products used are suitable for the application.
- The products have been installed in accordance with the manufacturer's instructions and other appropriate guidance.
- That any deviations from any prescribed installation methods are agreed with all interested parties, including the manufacturer, and that these deviations are suitably covered by appropriate test and/or assessment reports.
- The installer, whether directly employed or sub-contract, is in possession of the relevant controlled and up-to-date procedures and installation instructions, tools and equipment for the product being installed.

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- The workmanship of the installer is to a standard that ensures that the installed product meets the requirements of the design specification in terms of passive fire protection. The workmanship should also be acceptable to the customer.
- The installer leaves the place of work in a clean and tidy condition and to the customer's satisfaction.
- That all clauses of this standard and the appropriate Appendices are met.

4.1.3 Installing Company – initial office inspection

The initial office inspection will, as a minimum, aim to assess whether;

- There are sufficient records to ensure that the installing company is able to manage any given contract through the 'contract process' from receipt of an enquiry and order through to completion of the installation, issue of a Certificate of Conformity and filing of records.
- That all staff (permanently employed or sub-contract) are adequately trained and records of this training and competence are adequately recorded.
- That all clauses of this standard are met.

4.2 Ongoing assessment

4.2.1 Notification of sites

Approved Installers shall, on request of the LPCB, supply details of passive fire protection contracts completed and new passive fire protection contracts awarded to the Approved Installer since the initial assessment or last surveillance visit.

4.2.2 Site inspection – audits

The LPCB will undertake a minimum of two man-days of site inspection visits each year of the Approved Installer.

The number of days required will be increased if either the LPCB is visiting less than 15% of the installations completed by the Approved Installer or if a significant number of non-compliances are identified during site inspections.

4.2.3 Office inspection – audits

The number of office audits per annum will be defined by the auditor after the initial inspection, a minimum of 2 office audits per annum will be conducted during the first 2 years of certification, thereafter this may be reduced to a minimum of 1 per annum if the audit history indicates that the documented quality system is operating satisfactorily. The decision to reduce the number of audits will be at the discretion of LPCB.

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5 MARKING AND LABELLING

The Approved Installer shall have procedures for the documentation, identification and marking of passive fire protection systems installed under this scheme. It shall be possible at the site to readily identify that the passive fire protection was installed under this certification scheme. This information should be available in a location where it can be read by the property owner, building inspector, fire officer, insurance surveyor, or any other party that may require the information, but taking care not to compromise the fire performance of the product involved.

6 PUBLICATIONS REFERRED TO:

ISO 9001	Quality Management Systems - Requirements
LPS 1132	Requirements and Tests for LPCB Approval or wall and Floor Penetration and Linear Gap Seals
LPS 1107	Requirements, Tests and Methods of Assessment of Passive Fire Protection Systems for Structural Steelwork
LPS 1162	Requirements and tests for LPCB Certification of Fire Dampers

For updated references please refer to the latest published issue

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Appendix 1 – Penetration, cavity barriers and linear gap seals

Passive Fire Protection Product	Penetration, cavity barriers and linear gap seals.
Specific Training requirements	Manufacturer's training covering specific proprietary products.
Product Selection Criteria and suitable evidence	Products approved by LPCB to LPS 1132 - Requirements and Tests for LPCB Approval of Wall and Floor Penetration and Linear Gap Seals and/or;
	UKAS accredited third party approval of the product with a scope applicable to the installation under inspection and/or;
	Products approved under the Construction Products Regulation (CE Marking) to a standard relevant to the inspected installation and/or;
	Test and/or assessment evidence based on relevant British or European Standards and/or;
	Information and guidance published by the manufacturers' or recognised representative trade association(s) to the installation under inspection.

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Appendix 2- Fire rated board and cladding to structural elements

Passive Fire Protection Product Fire rated board and cladding to structural elements. Specific Training requirements Manufacturer's training covering specific proprietary products.		
' ' ' ' ' ' ' ' ' '	Passive Fire Protection Product	•
propriotally productor	Specific Training requirements	anufacturer's training covering specific oprietary products.
Product Selection Criteria and suitable evidence Products approved by LPCB to LPS 1107 - Requirements, Tests and Methods of Assessment of Passive Fire Protection Systems for Structural Steelwork and/or; UKAS accredited third party approval of the product with a scope applicable to the installation under inspection and/or; Products approved under the Construction Products Regulation (CE Marking) to a standard relevant to the inspected installation and/or; Test and/or assessment evidence based or relevant British or European Standards and/or; Information and guidance published by the manufacturers' or recognised representative trade association(s) to the installation under inspection.		equirements, Tests and Methods of seessment of Passive Fire Protection stems for Structural Steelwork and/or; CAS accredited third party approval of the oduct with a scope applicable to the stallation under inspection and/or; oducts approved under the Construction oducts Regulation (CE Marking) to a andard relevant to the inspected installation d/or; est and/or assessment evidence based on evant British or European Standards d/or; formation and guidance published by the anufacturers' or recognised representative and association(s) to the installation under

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Appendix 3 - Intumescent coatings to structural elements

Passive Fire Protection Product	Intumescent coatings to structural elements.
Specific Training requirements	Manufacturer's training covering specific proprietary products.
Product Selection Criteria and suitable evidence	Products approved by LPCB and/or; UKAS accredited third party approval of the product with a scope applicable to the installation under inspection and/or; Products approved under the Construction Products Regulation (CE Marking) to a standard relevant to the inspected installation and/or; Test and/or assessment evidence based on relevant British or European Standards and/or; Information and guidance published by the manufacturers' or recognised representative trade association(s) to the installation under inspection.

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Appendix 4- Fire rated spray materials

Passive Fire Protection Product	Fire rated spray materials.
Specific Training requirements	Manufacturer's training covering specific proprietary products.
Product Selection Criteria and suitable evidence	Products approved by LPCB to LPS 1107 – Requirements, Tests and Methods of Assessment of Passive Fire Protection Systems for Structural Steelwork and/or; UKAS accredited third party approval of the product with a scope applicable to the installation under inspection and/or; Products approved under the Construction Products Regulation (CE Marking) to a standard relevant to the inspected installation and/or; Test and/or assessment evidence based on relevant British or European Standards and/or; Information and guidance published by the manufacturers' or recognised representative trade association(s) to the installation under inspection.

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Appendix 5 - Fire rated ductwork systems

Passive Fire Protection Product	Fire rated ductwork systems.
Specific Training requirements	Manufacturer's training covering specific proprietary products.
Product Selection Criteria and suitable evidence	Products approved by LPCB and/or; UKAS accredited third party approval of the product with a scope applicable to the installation under inspection and/or; Products approved under the Construction Products Regulation (CE Marking) to a standard relevant to the inspected installation and/or; Test and/or assessment evidence based on relevant British or European Standards and/or; Information and guidance published by the manufacturers' or recognised representative trade association(s) to the installation under inspection.

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Appendix 6 - Fire resisting dampers

Passive Fire Protection Product	Fire resisting dampers.
Specific Training requirements	Manufacturer's training covering specific proprietary products.
Product Selection Criteria and suitable evidence	Products approved by LPCB to LPS 1162 – Requirements and tests for LPCB Certification or Fire Dampers and/or; UKAS accredited third party approval of the product with a scope applicable to the installation under inspection and/or; Products approved under the Construction Products Regulation (CE Marking) to a standard relevant to the inspected installation and/or; Test and/or assessment evidence based on relevant British or European Standards and/or; Information and guidance published by the manufacturers' or recognised representative trade association(s) to the installation under inspection.

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Appendix 7 - Fire resistant compartment wall systems

Passive Fire Protection Product	Fire resistant compartment wall systems.
Specific Training requirements	Manufacturer's training covering specific proprietary products.
Product Selection Criteria and suitable evidence	Products approved by LPCB and/or; UKAS accredited third party approval of the product with a scope applicable to the installation under inspection and/or; Products approved under the Construction Products Regulation (CE Marking) to a standard relevant to the inspected installation and/or; Test and/or assessment evidence based on relevant British or European Standards and/or; Information and guidance published by the manufacturers' or recognised representative trade association(s) to the installation under inspection.

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Appendix 8 – Offsite application of intumescent coatings to structural elements

Passive Fire Protection Product	Offsite application of intumescent coatings to structural elements.
Specific Training requirements	Manufacturer's training covering specific proprietary products.
Product Selection Criteria and suitable evidence	Products approved by LPCB and/or; UKAS accredited third party approval of the product with a scope applicable to the installation under inspection and/or; Products approved under the Construction Products Regulation (CE Marking) to a standard relevant to the inspected installation and/or; Test and/or assessment evidence based on relevant British or European Standards and/or; Information and guidance published by the manufacturers' or recognised representative trade association(s) to the installation under inspection. Inspection level for steel elements shall be 100%. A lesser level may be acceptable if agreed with the project consulting engineer.

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Amendments Issued Since Publication

DOCUMENT NO.	AMENDMENT DETAILS	SIGNATURE	DATE
LPS 1531-1.1	 New front cover Title added to header Contents moved to Page 1 Notes amended on Page 3 Repagination Update to copyright information 	SJP	Jan.2014
LPS 1531-1.2	Update to references from Construction Products Directive (CPD) to Construction Products regulation (CPR) Grammar and spelling corrections	R Tucker	April.2017