



# ENVIROGRAF®

## Fire protection coatings

up-to 15 years  
maintenance  
cycle



Fire protection  
coatings for  
wood, steel,  
concrete, fabric  
and fibre glass



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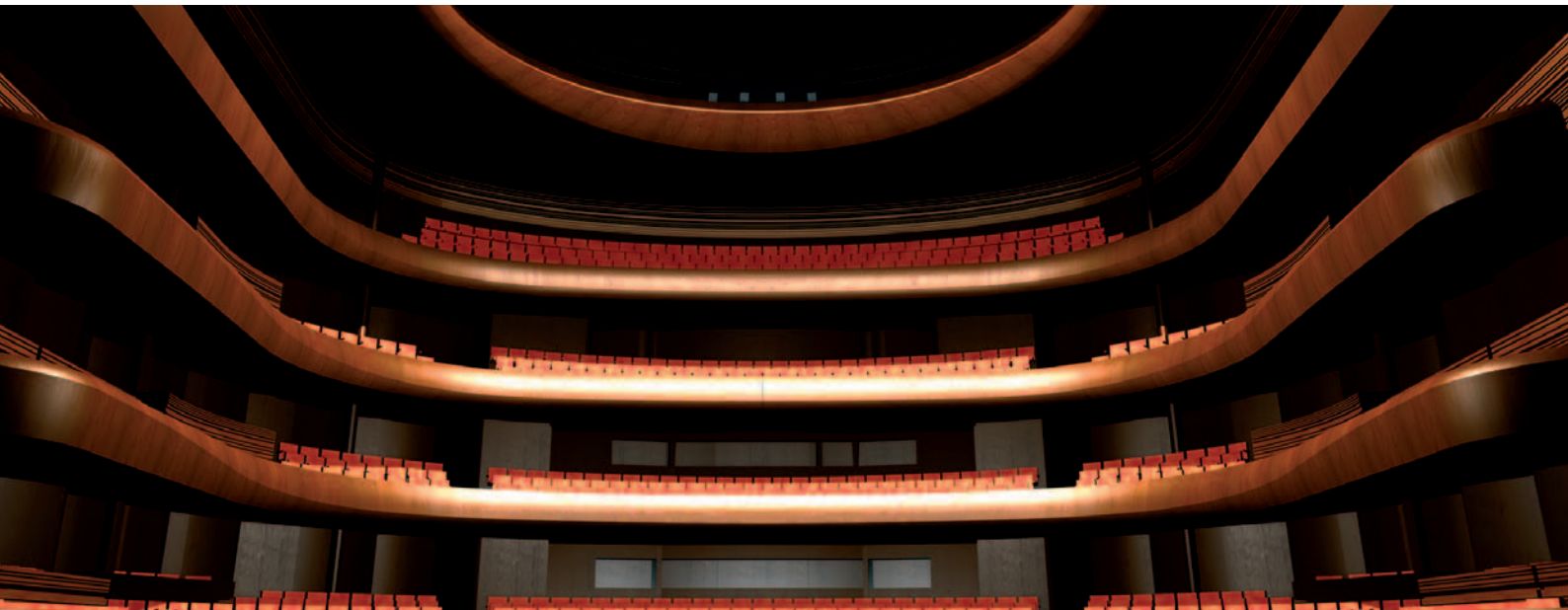


# The Envirograf® Fire Protection Coating Range

Envirograf® now offers the most comprehensive range of intumescent and fireproof coatings available. The coatings cover a wide range of applications from wood surfaces, structural steel through to upgrading lath and plaster ceilings, concrete surfaces and fibre glass materials. These coatings have been extensively used in many buildings, including Alnwick Castle, Buckingham Palace, Cambridge University, Crewe Hall, Lilleshall National Sports Centre, Shenley Manor, Walmer Castle and the Oslo Opera House to name but a few. This new range includes a wide selection of new top coat options offering a maintenance cycle up to 15 year. All of these coating systems have been fully tested in UK and European Test Houses.

## ADVANTAGES

- Allows existing wood to be upgraded to comply with both UK and European Fire Regulations
- Coatings can be applied over most paints and varnishes, eliminating the need for stripping
- Especially effective in refurbishment projects, often allowing existing architectural features to remain in place
- These systems are applied in the same way as regular paints and varnishes
- Straight forward application
- Environmentally friendly
- Class 0 and 1 Classifications and SBI: B/s1/d0 have been achieved on bamboo, hardwood, softwood, veneer, MDF and melamine boards
- 30-60 min ratings can be achieved on doors, timber panelling, load-bearing floor boards and joists
- 30-90 min ratings can be achieved on steel structures with a top coat system that can offer up to 15 year maintenance-free life cycle.
- Coatings for plasterboard, lath & plaster for over 60 minutes; coatings for concrete - 2 hours protection



# Information & Fire Tests

## WOOD COATINGS - PRODUCT 42

### HW System (Product 42)

Wood coating for 30 & 60 minutes fire protection as well as Class 0 & 1 and EN B/s1,d0. The HW Product 42 Range has been used for over 22 years fully tested. Can be used internally and externally, in both clear & coloured.

### HW System Tests

BS476: Part 6&7 — Class 0 & 1 Classification

BS476: Part 20/22:1987 — 60 minutes

EN 1364—1:1999 — 66 minutes

EN 13823:2002 'Single Burn Item'

EN 11925—2:2002 'Ignitability'

SBI:B/s1/d0

## WOOD COATINGS - PRODUCTS 92

### CLASS 0 & 1 plus EN B/s1,d0

### ES/VFR System (Product 92)

Must have a top coat applied, whether white or clear. For internal use any type can be applied. For external use any top coat which is for external use, and for areas liable to high sunlight using a light stain is advisable.

ES/VFR 2 coats at 12m<sup>2</sup> per litre per coat. Each coat dries in approx. 30 minutes.

### The ES/VFR System Tests

BS476: Part 6&7 — Class 0 & 1 Classification

EN 13501—1:2002 — B/s1,d0

EN 13823:2002 'Single Burn Item'

EN 11925—2:2002 'Ignitability'

SBI:B/s1/d0

### QVFR System (Product 92)

Has been developed for internal use only. Clear or white, dries slightly satin. If you require matt or gloss then you can apply a finish coat. QVFR is very hard wearing. 2 coats at 12m<sup>2</sup> per litre per coat. Dries in 40 minutes.

### The QVFR System Tests

BS476: Part 6&7 — Class 0 & 1 Classification

EN 13501—1:2002 — B/s1,d0

EN 13823:2002 'Single Burn Item'

EN 11925—2:2002 'Ignitability'

SBI:B/s1/d0

## DOOR UPGRADE SYSTEMS

### ES/RFC System (Product 103)

The ES/RFC System is a coating that offers wide range of top coat options. Both 30 or 60 minute fire protection ratings are achievable. This coating has been specifically designed to upgrade raised and fielded doors to either FD30 or FD60 fire door classifications.

### ES/RFC System Tests:

BS476: Part 6&7 — Class 0 & 1 Classification

BS476: Part 20/22:1987 — 60 minutes

EN 1364—1:1999 — 66 minutes

EN 13823:2002 'Single Burn Item'

EN 11925—2:2002 'Ignitability'

SBI:B/s1/d0

**Product 38: The upgrading existing panelled doors system shown in this data sheet includes the HW Range (Product 42)**

# The Product Range

## WOOD COATINGS

4-9

30-60 minute protection

## RAISED & FIELD DOOR

10-11

30-60 minute fire upgrade coating

## PANELLED DOORS

12-14

30-60 minute fire upgrade system

## COLOUR CHARTS

15-19

## STEEL STRUCTURE

20-23

30-90 minute fire upgrade coating

## LATH AND PLASTER CEILING/CONCRETE

24-25

30-60 minute fire upgrade coating

## FIRE RETARDANT SPRAY COATING

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## SPECIALIST COATINGS

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## UPGRADING CEILINGS | CONCRETE

### EP/CP System (Product 105)

The Envirograf® EP/CP Smooth Coating System is designed to upgrade 9mm and 12.5mm plasterboard walls and ceilings to achieve a 30 - 60 minute fire rating. Also for use on lath and plaster surfaces offering over 60 minutes fire protection.

EP/CP is also designed for coating concrete that requires 1 hour fire protection. For example car park areas.

### EP/CP System Tests:

BS476: Part 6&7 — Class 0 & 1 Classification

BS476: Part 20/22:1987 — 60 minutes

EN 1364—1:1999 — 66 minutes

EN 13823:2002 'Single Burn Item'

EN 11925—2:2002 'Ignitability'

## UPGRADING STEEL

**The ES/FS Steel System test information is available on request**





# Intumescent Coatings for Wood Specifying and Application

Upgrading wood surfaces within building structures to a fire rate specification is now a common requirement. UK and International Building Regulations are specific in stating two main categories where certain structures and surfaces may need to be upgraded.

## **FIRE PROTECTION RATING 30-60 MINUTES SBI: B/s1/d0**

The first category is to ensure that the structural elements of a building designed to support a load (i.e. floor joists that bear the overall floor structure), maintain their load-bearing capacity. The fire ratings required for load-bearing elements is generally measured in an amount of time that that building element is required to maintain its structural strength; commonly a 30 minutes or 60 minutes fire rating.

**The Envirograf® product that satisfies these requirements is Product 42 - The HW Coating Range.**



## **SPREAD OF FLAME RATING CLASS 0&1. SBI: B/s1/d0**

The second category is commonly known as 'Spread of Flame' protection.

This is a fire-rating that is specific to how a particular substrate can prevent a fire from spreading across its surface. An untreated wooden panelled wall would have no resistance to the spread of flame across its surface and cause the fire to spread into the rest of the building. This rating is measured in two classifications: Class 1 or Class 0 Spread of Flame. These two categories are now being replaced with a new internationally recognised test, now known as an SBI Rating.

**The Envirograf® product that satisfies these requirements is Product 92 - The ES/VFR Coating Range and the Q/VFR Coating Range**

**An exciting new range of top coats are now available for all of the above coatings**



# Fire Protection Rating

## 30-60 FIRE PROTECTION

**HW RANGE:  
CLEAR OR COLOUR**

With a new exciting wide range of top coats to choose from

**SPREAD OF FLAME RATING  
Class 0&1**

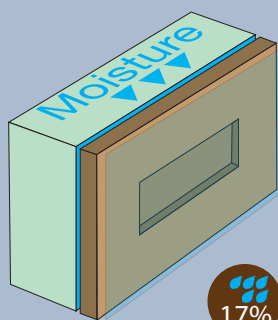
**ES/VFR RANGE:  
CLEAR OR COLOUR**

With new top coat options to finish

**NEW Q/VFR RANGE:  
FAST COATING SYSTEM  
CLEAR OR COLOUR**

For internal use, no primer or final top coat is required

## APPLICATION TIPS



When applying a coating to panelled wood areas that are fixed to a wall it is important to ensure the moisture content of the wood substrate is below 17%.

We recommend that you always apply the HWAP/APS Primer before HW01/F, HW02/E or the ES/VFR system is used. This primer is excellent for sealing the wood surface from moisture absorbed from the wall behind.



**Special application recommendation from the BSI Code of practice for painting buildings 6.5 Profiles**

'It is important to avoid sharp transitions between planes, because surface finishes, whether stains or paints, will tend to 'stretch' over sharp edges leaving a thinner coat of film at the most exposed part of the profile. To avoid this, edges should be rounded to a radius of at least 3mm to ensure that a consistent thickness of finish is maintained.



Square edges typically do not hold any load from the coatings.

A 3mm radius should be applied to all square edges allowing for a film cover, otherwise moisture will penetrate the coatings at this point.

Intumescent coatings are vulnerable to moisture and therefore must be coated with a top sealer coat. This coat encapsulates the intumescent coat and will offer protection equivalent to the top coat life cycle.

It is important to coat all surface areas of the substrate, including end grain areas etc.



## TOOLS and STORAGE

- Water based products wash with warm water
- White spirit based products clean with white spirit or a brush cleaner
- Store these products in temperatures between 5°C and 30°C.

# Wood protection HW System

## UNTREATED TIMBER

- HW02/E coats well over pre-treated timber surfaces, such as those that have been stained or sealed with a primer/sealer. If the timber you have to coat is untreated, it is recommended that you first seal the surface with either water-based stain or Envirograf® HW/AP, after which the HW02/E is easier to apply and flows better from the brush.

The HW System (Product 42) offers a range of clear, coloured or white coatings designed to upgrade new and existing timber substrates, offering up to 30 or 60 minutes fire protection meeting both UK National and European Fire Regulations.

## APPLICATION DETAILS

HW01/F and HW02/E are the intumescent fire protection coating elements for the overall coating systems. It is crucial that care is taken when applying these coatings and that the application instructions are rigorously followed. HW02/E (not HW01/F) is a hygroscopic material, if applied in the wrong conditions it will absorb moisture from the atmosphere and can then become cloudy, resulting in the need to completely strip back the system. It is therefore very important to ensure the moisture in the atmosphere content is below 65% and

that the wood substrate moisture content is also below 17%. As soon as the HW02/E coats are dry and completely clear, a top coat must be applied, sealing the HW02/E from moisture in the atmosphere. We recommend this system is not left overnight to dry without a top coat being applied. It is therefore important to only apply sufficient amounts that allow for coating completion with a day schedule. Please ensure all rooms are sufficiently kept warm during the drying time.

### APPLICATION FOR WOODEN PANELLING IN OLD BUILDINGS

When applying a coating to panelled wood areas that are fixed to a wall, it is important to ensure that the new coatings are protected from moisture penetration from the wall. Please use the HWAP/APS Primer before HW01/F, HW02/E.

Coating rate: one coat at 12-16m<sup>2</sup>.



**Do not apply these products in temperatures below 5°C**



**Only apply these products in areas where the atmospheric moisture is below 65%**



**Only apply these products on surfaces that have a moisture content below 17%**

## SPECIAL INSTRUCTIONS – HW02/E

HW02/E needs to be stirred for 5 minutes. In cold temperatures stand the container in hot water and stir well – then apply.

Typical of intumescent clear coatings the HW02/E appears cloudy when first applied, as the coating dries it will become completely clear in finish. Allow the first coat to completely dry and clear before applying the second coating.

Once HW02/E has been applied DO NOT ATTEMPT to rework by over brushing – this will tear the coating. If reworking is absolutely necessary then dip the brush in warm water and gently brush over the area.

If this is the first time HW02/E has been applied, then it is

advisable to practice an application on a small area.

It is crucial that HW02/E is sealed with a top coat. This must be completed as soon as the HW02/E coat is dry. Do not leave over night to finish in damp or open ventilated areas as the HW02/E coat will absorb atmospheric moisture causing a cloudy appearance. This cannot be corrected without stripping back to the original surface. Only leave overnight in dry and heated rooms.

For new or stripped wood surfaces that require staining, we recommend a good quality water based stain before applying the HW system.

If CEDAR is to be treated, please apply HWAP/WB Primer as a first coat.

For areas of high humidity such as swimming pools and saunas, we recommend the use of the Envirograf® intumescent chlorinated rubber coating or chlorinated rubber coating top coat.

**Please contact the technical department for more details 01304 842 555.**



## CLEAR 30-60 min Fire Protection

### HW02/E CLEAR SYSTEM

**Preparation:** The substrate surface must be clean of all dust and dry. There should be no trace of oil, grease or similar substance. The surface should be sanded smooth. If timber is pre-vernished, ensure the surface is clean and sanded appropriately.

## PRIMER

### HWAP/WB/PRIMER ● Water-based

HWAP/WB/Primer is a water-based clear primer used for all surfaces before HW02/E is applied.

**Coating rate** 1 coat  
**Planned wood** 10-12m<sup>2</sup> per litre

## CLEAR INTUMESCENT COATING

### HW02/E ● Water-based

A water-based clear intumescent coating for all wood/related products.

**Coating rate** For 30 mins of Fire Protection: 2 coats at 8m<sup>2</sup>/litre/coat  
For 60 mins of Fire Protection: 3 coats at 8m<sup>2</sup>/litre/coat (according to the wood thickness and type)

As soon as this coat has dried one of the protective top coats shown below must be applied. Allow to dry thoroughly.

## TOP COATS

### HW/EXCEL/CLEAR ● Solvent-based

HW/EXCEL is an easy to apply hardwearing topcoat. Ideal for general-purpose use offering good durability.

**Coating rate** 1 coat  
**Planned wood** 10-12m<sup>2</sup> per litre per coat  
**Finish** Gloss, Matt, Satin

5 - 6 year  
maintenance  
cycle

INTERNAL

### HW/PREMIER/CLEAR ● Water-based

HW03/PREMIER is a clear water based flexible and robust hardwearing coating. This coating offers good durability for areas that require standard varnish protection.

**Coating rate** 1 coat  
**Planned wood** 10-12m<sup>2</sup> per litre per coat in areas of high humidity apply 8m<sup>2</sup> per litre per coat  
**Finish** Matt, Satin

3 - 4 year  
maintenance  
cycle

INTERNAL

### HW/ULTIMATE/CLEAR ● Water-based

This coating is a low-odour, quick drying, water-based polyurethane varnish ideal for areas that require a tough and high resistant protection. Designed for areas of high levels of traffic including floors, panelling, and stairs.

**Coating rate** 2 coats  
**Planned wood** 10-12m<sup>2</sup> per litre per coat  
**Finish** Matt, Satin

4 - 5 year  
maintenance  
cycle

INTERNAL

### HW/SUPERB/CLEAR ● Solvent-based

This coating is a tough long lasting extra hard wearing solvent based top coat that offers a superb robust and easy to clean surface. This coating offers excellent UV protection.

**Coating rate** 2 coats  
**Planned wood** 10-12m<sup>2</sup> per litre  
**Finish** Satin

3 - 4 year  
maintenance  
cycle

EXTERNAL

### HW/UVR ● Solvent-based

This coating is a glossy golden brown weather resistant exterior topcoat. It offers a flexible and highly water resistant protection. It contains fungicide and UV protection against discolouration. For exterior areas that require durability, flexibility and high levels of weather resistance.

**Coating rate** 2 coats  
**Surface** 17m<sup>2</sup> per litre per coat  
**Finish** Clear Gloss Varnish (Golden brown colour)

3 - 4 year  
maintenance  
cycle

EXTERNAL

### HW/TRANSLUCENT ● Water-based

This is a low-odour, quick drying, coating which enhances the woodgrain and is ideal for areas that require tough and high resistant external protection.

**Coating rate** 2 coats  
**Planned wood** 10-12m<sup>2</sup> per litre per coat  
**Finish** Satin

Up to 8 year  
maintenance  
cycle

EXTERNAL

## COLOUR 30-60 min Fire Protection

### HW01/F COLOUR SYSTEM

**Preparation:** The substrate surface must be clean of all dust and dry. There should be no trace of oil, grease or similar substance. The surface should be sanded smooth. If timber is pre-vernished, ensure the surface is clean and sanded appropriately.

## PRIMER

### HWAP/WB/PRIMER ● Water-based

HWAP/WB/Primer is a water-based clear primer used for all surfaces before HW01/F is applied.

**Coating rate** 1 coat  
**Planned wood** 10-12m<sup>2</sup> per litre

## INTUMESCENT COATING

### HW01/F ● Water-based

A water-based white intumescent coating for all wood/related products.

**Coating rate** For 30 mins of Fire Protection: 2 coats at 8m<sup>2</sup>/litre/coat  
For 60 mins of Fire Protection: 3 coats at 8m<sup>2</sup>/litre/coat (according to the wood thickness and type)

As soon as this coat has dried one of the protective top coats shown below must be applied. Allow to dry thoroughly.

## TOP COATS

### HW/EXCEL/WHITE ● Solvent-based

This is an opaque solvent based coating designed for outdoor use (can be used internally if required), with a consistency that leaves an attractive softened impression of the timber grain. It is easy to apply and forms a flexible film, which provides excellent weather resistance.

**Coating rate** 2 coats (external) 1 coat (internal)  
**Planned wood** 10-12m<sup>2</sup> per litre per coat  
**Finish** Satin (also available in BS or RAL colours)

6 year  
maintenance  
cycle

INTERNAL

EXTERNAL

### HW/PREMIER/WHITE ● Water-based

This is a white water based hardwearing coating. Designed as a high quality internal coating for general use.

**Coating rate** 2 coats  
**Planned wood** 10-12m<sup>2</sup> per litre per coat  
**Finish** Gloss, Matt, Satin (colour chart p19)

4 - 5 year  
maintenance  
cycle

INTERNAL

### HW/ULTIMATE/WHITE ● Water-based

This coating is a fast drying water borne paint for outdoor use (can be used internally if required), that offers UV colour stability and protection against surface attack from fungi. A colour coating ideal for external areas that require excellent weather protection properties.

**Coating rate** 2 coats external. 1 coat internal  
**Planned wood** 10-12m<sup>2</sup> per litre per coat  
**Finish** Satin (colour chart p16-17)

10-12 year  
maintenance  
cycle

INTERNAL

EXTERNAL

### HW/SUPERB/WHITE ● Water-based

This is a water borne coating for outdoor use (can be used internally if required) that offers a unique UV protection block. It also contains film-conserving agents combating fungal growth.

**Coating rate** 2 coats external. 1 coat internal  
**Planned wood** 10-12m<sup>2</sup> per litre per coat  
**Finish** Gloss (also available in BS or RAL colours)

5 - 6 year  
maintenance  
cycle

INTERNAL

EXTERNAL

### HW/EASYCLEAN ● Washable/Scrubable

This coating is a washable and durable acrylic top coat. This coat is excellent for areas requiring high durability. Fully dirt-repellent and does not stain after cleaning. After application, the painted surface can be washed or scrubbed (see coverage information).

**Coating rate** 2 coats. Apply one coat at 8-10m<sup>2</sup>/litre. If the surface attracts dirt after application, it can be easily washed clean. If two coats are applied at 8-10m<sup>2</sup> per litre, the surface can be scrubbed clean.  
**Finish** Matt and Satin (colour chart p15)

4 - 5 year  
maintenance  
cycle

INTERNAL

### HW/ACRYLIC/WHITE ● Water-based

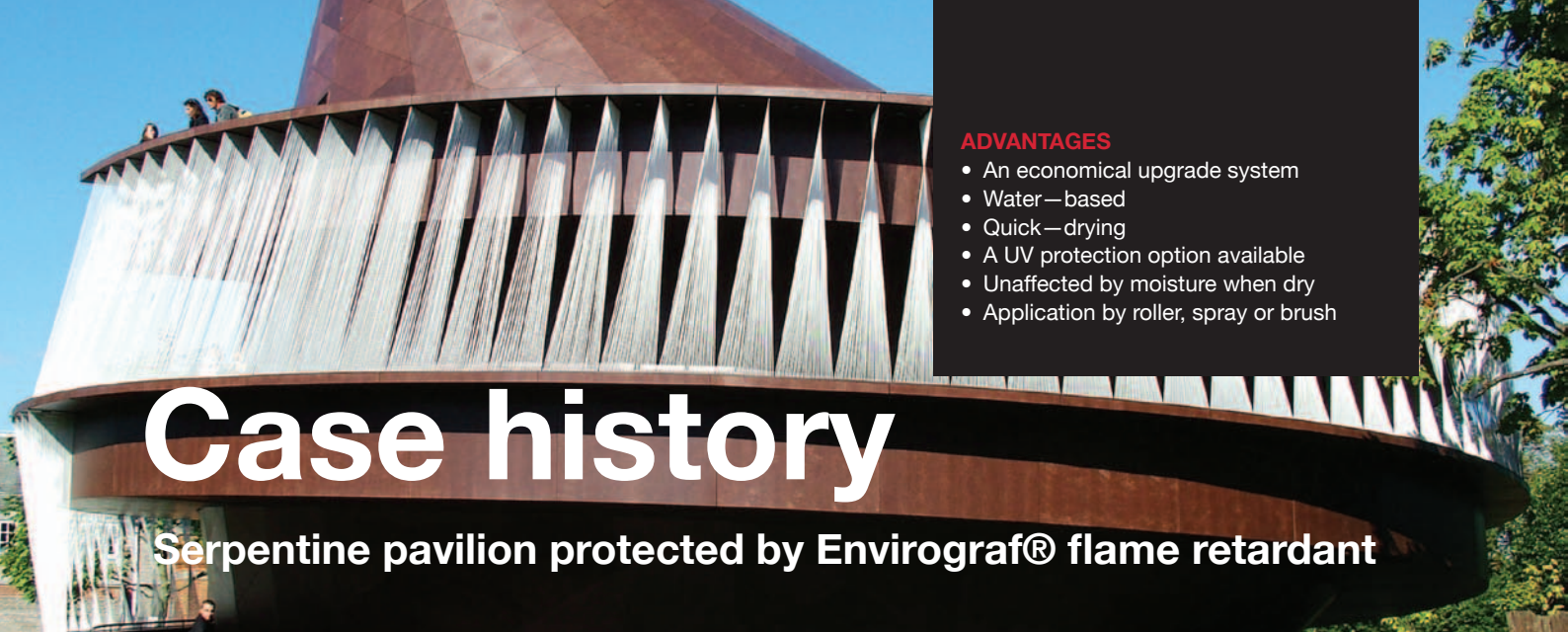
This coating is a hardwearing and flexible acrylic topcoat. This coating is excellent for areas that require high levels of durability and flexibility where movement may occur.

**Coating rate** 2 coats. Apply 2 coats at 12m<sup>2</sup> per litre.  
**Finish** Matt (also available in BS or RAL colours)

4 - 5 year  
maintenance  
cycle

INTERNAL

EXTERNAL



#### ADVANTAGES

- An economical upgrade system
- Water—based
- Quick—drying
- A UV protection option available
- Unaffected by moisture when dry
- Application by roller, spray or brush

# Case history

## Serpentine pavilion protected by Envirograf® flame retardant

**Every year, a temporary exhibition pavilion is erected beside the Serpentine Gallery in Hyde Park, London. The design is a spectacular wooden structure based on a helical design by the celebrated Norwegian Olafur Eliasson in conjunction with Kjetil Thorsen**

This wood and steel design allows visitors to easily and safely ascend and descend a spiral pathway with excellent views of the interior pavilion chamber and Kensington Gardens.

The robust steel framework of the Serpentine Pavilion is covered extensively with wooden boards, and Alexander Dietrich (Project Director of the London-based contractors Bovis Lend-Lease) insisted on effective preventative measures to protect against the inherent risks of accidental or malicious fire propagation. Fire prevention consultant Andy Wahts of Fire Prevention Products (London) was contacted for advice on suitable products to protect the wood. Based on Andy's previous experience, he immediately recommended Envirograf® Product 92 (ES/VFR water-based Class 0 & Class 1 flame retardant).

Available in clear or white finishes and has been tested to BS476 Part 6 (1989) spread of flame and BS476 Part 7 (1989) spread of flame, as well as the classification B/S1/d0 of European Standard EN13501 Parts EN13823 (2002) single burn test (SBI) and EN11925-2 (2002) ignitability.

Envirograf® Product 92 (ES/VFR) is simple to apply by brush, roller, or spray, and it has a fast drying time for quick completion of the flame retardant treatment.

The product has been tested on a variety of substrates including new wood, bamboo, chipboard, hardboard, MDF, melamine-faced board, veneer-faced MDF without fire rating, etc. Similar fire prevention projects have included the treatment of wooden homes in Scandinavia and many of the ornate wooden features in stately homes and churches.

### THE ES/VFR AND Q/VFR SYSTEMS (PRODUCT 92)

The ES/VFR System offers a clear or white fire retardant coating for upgrading wood and wood related surfaces to a Class 0 or Class 1 Classification (UK Standards) or a SBI: B/s1/d0 (European Standard) Rating.

The ES/VFR system is suitable for use over many wood and wood type substrates including, new and existing timber, bamboo, chipboard, hardboard, MDF, melamine—faced board, veneer faced board etc. It can also be applied over existing paints and varnishes according to application details shown on the adjacent page.

#### APPLICATION FOR WOODEN PANELLING IN OLD BUILDINGS

When applying a coating to panelled wood areas that are fixed to a wall, it is important to ensure that the new coatings are protected from moisture penetration from the wall.

Please use the HWAP/APS Primer before ES/VFR or Q/VFR.

Coating rate: one coat at 12-16m<sup>2</sup>.

#### Important Considerations

- Do not apply this product in temperatures below 5°C
- Always shake the container vigorously to ensure the product is well mixed. The ES/VFR Clear will appear slightly white on application; this is normal but will clear during drying.
- If applying to OAK: Apply a coat of ES/VFR/P Primer to seal the wood at 12—16m<sup>2</sup> per litre.
- If applying to CEDAR: Apply a coat of ES/VFR/P Primer at 12—16m<sup>2</sup> per litre.

**PLEASE NOTE Q/VFR will not take a Top Coat of Pre-Catalyst Lacquer. If you wish to use Pre-Catalyst Lacquer, then please order ES/VFR Clear/White.**

### New Q/VFR rapid two coat fire retardant available!

**No primer or top coat required for internal use.**

**See opposite page for further details.**



## Class 0&1

### ES/VFR CLEAR

**Preparation:** The substrate surface must be clean of all dust and dry. There should be no trace of oil, grease or similar substance. The surface should be sanded smooth. If timber is pre-varnished, ensure the surface is clean and sanded appropriately. If timber is pre-varnished, ensure the surface is clean and sanded appropriately.

### PRIMER

#### ES/VFR/PRIMER ● Water-based

A clear water based primer to apply over existing paint, varnish or wax surfaces before applying coatings.

**Coating rate** 1 coat  
**Planned wood** 10-12m<sup>2</sup> per litre

### CLEAR FIRE RETARDANT COAT

#### ES/VFR/CLEAR ● Water-based

Fire retardant clear coating for wood, wood boards, MDF, melamine and veneered boards, and wood-related products. Tested to BS476 Parts 6&7, Class 0 & Class 1 (1987) spread of flame. SBI:B/s1/d0.

Two coats are required for BS476 Parts 6 & 7, Class 0 & Class 1 (1987) spread of flame. First coat coverage could vary according to wood type/density. Apply first coat and allow 1-2 hours to dry. Ensure each coat is dry before applying next coat. Apply second coat and allow 1-2 hours to dry.

**Coating rate** 2 coats 12-15m<sup>2</sup> per litre per coat.

### TOP COAT - CLEAR

#### ES/VFR/HARDWEARING ● Water-based

A clear water based, flexible and robust hardwearing coating. This coating offers good durability for areas that require standard varnish protection.

**Coating rate** 2 coats (external) 1 coat (internal)  
**Planned wood** 10-12m<sup>2</sup> per litre per coat  
**Finish** Satin

3 - 4 year  
maintenance  
cycle

INTERNAL  
EXTERNAL

*Please refer to page 18 for a new translucent coating range applied at 2 coats at 10-12m<sup>2</sup> per litre per coat*

## Q/VFR FAST - RAPID APPLICATION FIRE RETARDANT SYSTEM

### Q/VFR/C CLEAR

Internal Coating Rate: 2 coats are required for BS476 Parts 6 & 7, Class 0 & Class 1 (1987) spread of flame. First coat coverage could vary according to wood type/density. Apply first coat and allow 1-2 hours to dry. Ensure each coat is dry before applying next coat. Apply second coat and allow 1-2 hours to dry.

Coverage 12-15m<sup>2</sup> per litre. One of the 3 topcoats shown below must be applied over Q/VFR/C to finish when using externally.

#### Q/VFR/PRIMER/CLEAR ● Water-based

This coating is a low-odour, quick drying, water-based polyurethane varnish ideal for areas that require a tough and high resistant protection. Designed for areas of high levels of traffic, ideal for doors, panelling, and stairs.

**Coating rate** 2 coats  
**Planned wood** 10-12m<sup>2</sup> per litre per coat  
**Finish** Matt, Satin, Gloss

4 - 5 year  
maintenance  
cycle

INTERNAL

#### Q/VFR/PRIMER/UV+CLEAR ● Water-based

This coating is clear water based, flexible and robust hardwearing coating. This coating offers good durability for areas that require standard varnish protection.

**Coating rate** 2 coats (external) 1 coat (internal)  
**Planned wood** 10-12m<sup>2</sup> per litre per coat (in areas of high humidity apply at 8m<sup>2</sup> per litre per coat)  
**Finish** Matt, Satin

5 - 6 year  
maintenance  
cycle

INTERNAL  
EXTERNAL

#### Q/VFR/UVR ● Solvent-based

This coating is a glossy golden brown weather resistant exterior topcoat. It offers a flexible and highly water resistant protection. It contains fungicide and UV protection against discolouration. For exterior areas that require durability, flexibility and high levels of weather resistance

**Coating rate** 2 coats  
**Surface** 17m<sup>2</sup> per litre per coat  
**Finish** Gloss Varnish (Golden brown finish)

3 - 4 year  
maintenance  
cycle

INTERNAL  
EXTERNAL

## Class 0&1

### ES/VFR COLOUR

**Preparation:** The substrate surface must be clean of all dust and dry. There should be no trace of oil, grease or similar substance. The surface should be sanded smooth. If timber is pre-varnished, ensure the surface is clean and sanded appropriately. If timber is pre-varnished, ensure the surface is clean and sanded appropriately.

### PRIMER

#### ES/VFR/PRIMER ● Water-based

A clear water based primer to apply over existing paint, varnish or wax surfaces before applying coatings.

**Coating rate** 1 coat  
**Planned wood** 10-12m<sup>2</sup> per litre.

### COLOUR FIRE RETARDANT COAT

#### ES/VFR/WHITE ● Water-based

Fire retardant white coloured coating for wood, wood boards, MDF, melamine and veneered boards, and wood-related products. Tested to BS476 Parts 6&7, Class 0 & Class 1 (1987) spread of flame. SBI:B/s1/d0.

Two coats are required for BS476 Parts 6 & 7, Class 0 & Class 1 (1987) spread of flame. First coat coverage could vary according to wood type/density. Apply first coat and allow 1-2 hours to dry. Ensure each coat is dry before applying next coat. Apply second coat and allow 1-2 hours to dry.

**Coating rate** 2 coats 12-15m<sup>2</sup> per litre per coat.

### TOP COAT

#### HW/ACRYLIC ● Water-based

This coating is a white water based hardwearing coating. Designed as a high quality internal coating for general use.

**Coating rate** 2 coats  
**Planned wood** 10-12m<sup>2</sup> per litre per coat  
**Finish** Matt

4 - 5 year  
maintenance  
cycle

INTERNAL  
EXTERNAL

### Q/VFR/W COLOUR

Internal Coating Rate: 2 coats are required for BS476 Parts 6 & 7, Class 0 & Class 1 (1987) spread of flame. First coat coverage could vary according to wood type/density. Apply first coat and allow 1-2 hours to dry. Ensure each coat is dry before applying next coat. Apply second coat and allow 1-2 hours to dry.

Coverage 12-15m<sup>2</sup> per litre. One of the 3 topcoats shown below must be applied over Q/VFR/W to finish when using externally.

#### Q/VFR/PRIMER ● Water-based

This coating is a clear water-based hardwearing top coat offering superb finish. Designed as a high quality internal coating for general use.

**Coating rate** 2 coats  
**Planned wood** 10-12m<sup>2</sup> per litre per coat  
**Finish** Matt, Satin, Gloss (colour chart p19)

4 - 5 year  
maintenance  
cycle

INTERNAL

#### Q/VFR/PRIMER+WHITE ● Water-based

This coating is a water-borne colour coating for outdoor use (can be used internally if required), which offers a good flow and covering capacity as well as water proof protection.

**Coating rate** 2 coats external. 1 coat internal  
**Planned wood** 10-12m<sup>2</sup> per litre per coat  
**Finish** Matt, Satin, Gloss (also available in BS or RAL colours)

5 - 6 year  
maintenance  
cycle

INTERNAL  
EXTERNAL

#### Q/VFR/EASYCLEAN ● Scrutable

This coating is a washable and durable acrylic topcoat, excellent for areas requiring high durability. Fully dirt-repellent and does not stain after cleaning. After application, the painted surface can be washed or scrubbed (see coverage information).

**Coating rate** 2 coats. Apply one coat at 8-10m<sup>2</sup> per litre. If the surface attracts dirt after application wash clean. If two coats are applied at 8-10m<sup>2</sup> per litre, it can be scrubbed clean.

**Finish** Matt or Satin (colour chart p15)

4 - 5 year  
maintenance  
cycle

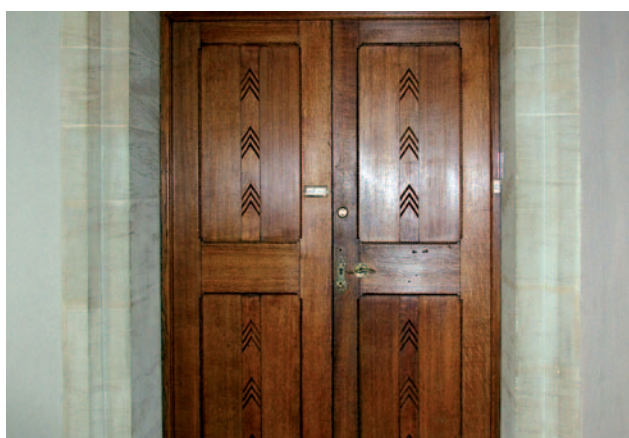
INTERNAL

# Upgrading raised and fielded doors to FIRE rated status

The ES/RFC System (Product 103) has been designed to upgrade raised and fielded panelled doors. The system is ideally suited for refurbishment projects requiring existing period doors to be upgraded. Doors can be upgraded to either a FD30 or FD60 fire door classification dependant on the requirement issued by Building Control.

## Fire Performance

The ES/RFC system has been applied to a number of doors that have been tested in accordance with BS476 Part 22 (1987), assisting doors to achieve a fire integrity of between 30 and 60 minutes.



## Important Considerations

If the door is to be stained, only use water-based stains before the application of the ES/RFC System. When the stain has dried, lightly rub down the substrate with glass paper, clean down and then begin to apply the ES/RFC system. Trials in small areas should always be carried out prior to the full application, as colour performance can vary according to substrate type.



**Do not apply these products in temperatures below 5°C**



**Only apply these products in areas where the atmospheric moisture is below 65%**



**Only apply these products on surfaces that have a moisture content below 17%**

## SPECIAL INSTRUCTIONS

### ES/RFC/IN/C Clear intumescent

ES/RFC/IN/C Clear needs to be stirred for 5 minutes before application. In cold temperatures stand the container in hot water and stir well – then apply.

Typical of intumescent, the ES/RFC/IN/C clear coating appears cloudy when first applied. as the coating dries it will become completely clear in finish. Allow the first coat to completely dry and clear before applying the second coating.

Once ES/RFC/IN/C Clear has been applied DO NOT ATTEMPT to rework by over brushing – this will tear the coating. If reworking is necessary then dip the brush in warm water and gently brush over the area.

If this is the first time ES/RFC/IN/C Clear has been applied, it is advisable to test on a small area.

It is crucial that ES/RFC/IN/C Clear is sealed with a top coat. This must be completed as soon as the ES/RFC/IN/C Clear coat is dry. Do not leave over night to finish as the ES/RFC/IN/C Clear will absorb atmospheric moisture causing a cloudy appearance. This cannot be corrected without stripping back to the original surface. Only leave overnight in dry and heated rooms.

### ES/RFC/IN/W White intumescent

ES/RFC/IN/W White needs to be stirred for 5 minutes before application. In cold temperatures stand the container in hot water and stir well – then apply.



## CLEAR Fire Protection 30-60 mins Upgrading Raised and Fielded Doors

### ES/RFC CLEAR KIT

Preparation: The substrate surface must be clean of all dust and dry. There should be no trace of oil, grease or similar substance. The surface should be sanded smooth. If timber is pre-varnished, ensure the surface is clean and sanded appropriately.

### PRIMER

#### ES/RFC/Primer ● Water-based

This coating is a water-based clear primer for use in areas in which other ES products could not normally be applied.

**Coating rate** 1 coat  
**Coverage** 10-12m<sup>2</sup> per litre

### INTUMESCENT COATING

#### ES/RFC/IN ● Water-based

This coating is an intumescent water-based hygroscopic coating. As soon as this coat has dried a protective topcoat must be applied. Allow to dry thoroughly.

**Coating rate** For 30/60 mins of Fire Protection: apply 2 coats at 8m<sup>2</sup>/litre. When thoroughly dry, apply second coat at 8m<sup>2</sup>/litre.

As soon as these coats have dried apply one of the protective top coats shown below. Allow to dry thoroughly.

### TOP COATS

#### ES/RFC/CM ● Water-based Matt

#### ES/RFC/CS ● Water-based Satin

These clear top coats are low-odour, quick drying, water-based polyurethane varnish ideal for areas that require a tough and high resistant protection. Designed for areas of high levels of traffic where doors require high levels of protection.

**Coating rate** 2 coats  
**Coverage** 10-12m<sup>2</sup> per litre per coat  
**Finish** Matt, Satin

4 – 5 year  
maintenance  
cycle

Each kit will cover 6m<sup>2</sup> or 3 of the risk sides of the door surfaces. Please see the price list for more information.



## COLOUR Fire Protection 30-60 mins Upgrading Raised and Fielded Doors

### ES/RFC COLOUR KIT

Preparation: The substrate surface must be clean of all dust and dry. There should be no trace of oil, grease or similar substance. The surface should be sanded smooth. If timber is pre-varnished, ensure the surface is clean and sanded appropriately.

### PRIMER

#### ES/RFC/Primer ● Water-based

This coating is a water-based clear primer for use in areas in which other ES products could not normally be applied.

**Coating rate** 1 coat  
**Coverage** 10-12m<sup>2</sup> per litre.

### INTUMESCENT COATING

#### ES/RFC/IN/W ● Water-based

This coating is an intumescent water-based hygroscopic coating. As soon as this coat has dried a protective topcoat must be applied. Allow to dry thoroughly.

**Coating rate** For 30/60 mins of Fire Protection: apply 2 coats at 8m<sup>2</sup>/litre. When thoroughly dry, apply second coat at 8m<sup>2</sup>/litre.

As soon as these coats have dried apply one of the protective top coats shown below. Allow to dry thoroughly.

### TOP COATS

#### ES/RFC/WM ● Water-based Matt

#### ES/RFC/WS ● Water-based Satin

#### ES/RFC/WG ● Water-based Gloss

These top coats are white water-based hardwearing coating. Designed as a high quality internal coating for hardwearing and general use.

**Coating rate** 2 coats  
**Coverage** 10-12m<sup>2</sup> per litre per coat  
**Finish** Matt, Satin, Gloss

4 – 5 year  
maintenance  
cycle

Each kit will cover 6m<sup>2</sup> or 3 of the risk sides of the door surfaces. Please see the price list for more information.





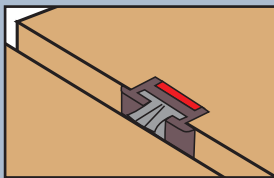
# Fire door protection

## and upgrading existing panelled doors

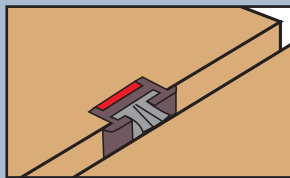
Many buildings may require doors to be fire rated, depending on design type and floors to be occupied. All fire rated doors must have intumescent/brush seals to prevent the spread of smoke and fire. Fire doors should also include fire rated hinges and the correct door return where specified. Below shows a variety of products meeting these specifications.

### APPLICATION FOR PRODUCTS 69, 71 AND 100

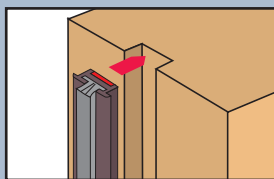
#### NEW PUSH FIT SEAL — PRODUCT 100



Seals can be fitted to the rebated door edge.



Seals can alternatively be fitted to the rebated frame.



The new Product 100 Seal clips into the groove. It can be removed when decorating and simply, clipped back to finish.

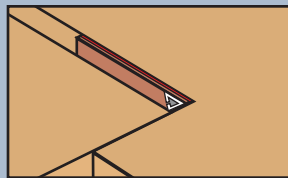


#### PRODUCT 71 Self-closing adjustable CE Approved hinges (Fire Rated)

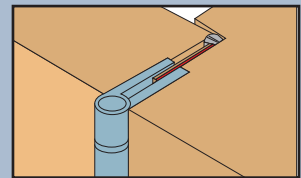
Doors upgraded to fire door status should be self closing and comprise of three hinges. The Envirograf® self-closing

hinge set includes three self closing hinges faced with fire protection intumescent, that can be individually adjusted to the required return tension needed. The hinges are available in white, stainless steel, chrome, brown or polished brass. The hinge set has been fully tested to BS476 Part 22 (1987) achieving both 30 and 60 minutes fire ratings.

#### PRODUCT 69

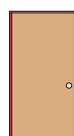
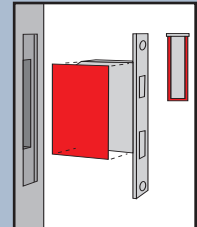
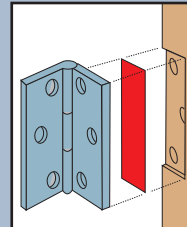
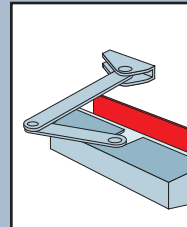


Envirograf® Surface Mounted Seals are fitted onto the frame and provide hinge protection.



#### PRODUCT 71

All related locks, hinges and door closures must be fully protected to comply with current fire regulations. The intumescent cloth material is laid behind the hinges and around the locks during installation. (Important — do not use mastic or putty).



All fire doors must have intumescent fire and smoke seals. Seals can be fitted either into the edge of the door or into the frame, shown by the red line in the illustration adjacent.



## UPGRADING EXISTING PANELLED DOORS TO FD 30 - 60 FIRE RATING (PRODUCT 38)

Fire doors act as a crucial element of the escape route protection in loft room extensions. If the doors meet the criteria shown on page 12 (Method A or B), then there is no need to discard them. Follow the instructions below and upgrade these doors to a full FD30 or FD60 where required!

### Introduction

The Envirograf® Panelled Door Upgrading System is simple to apply and offers effective results. This system has been used in many prestigious heritage buildings as part of major refurbishment projects. Envirograf® Product 38 has also been used in many loft conversions that are typically made in Victorian, Georgian and Edwardian homes, all containing beautiful original doors. Often these doors are replaced with modern FD rated replicas, which never have the original appearance.

The system comprises, an intumescent coating applied to the door and an intumescent sandwiched card (for doors to be painted) or an intumescent sandwiched veneer for doors to be varnished, applied to the risk side of the panels of each door to be upgraded.

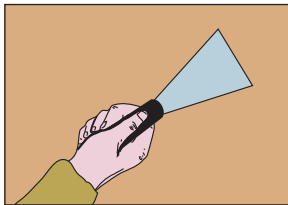
### Room conditions and correct humidity for application

Intumescent coatings require dry conditions to be effectively applied. Room humidity is crucial during application and drying time. **Atmosphere moisture readings should not exceed 65% RH.**

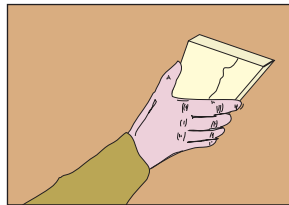
### IMPORTANT FOR DK KITS

After cleaning, if the door is still oily, greasy, or has wax on it, then a coating of Envirograf® Product 42 HW/AP Primer must be applied to the whole face of the door. Apply Envirograf® Product 93 Stabond to the panels and then apply Envirograf® Product 46 intumescent adhesive (IA) to both the door panels and the grey side of the intumescent card/veneer/ply/gaboon. Apply to the door panels and brush down flat, removing any air pockets, and then use a wallpaper roller to ensure good adhesion. Ensure that the supplied labels are fitted either on the edge of the door or frame over the top hinge on whichever side the intumescent seals are fitted to. All doors classed as fire doors should have intumescent fire and smoke seals fitted and intumescent paper behind the hinges and around rebated latches and locks. Envirograf® Product 69 surface-mounted 30 and 60 minutes fire and smoke protection seals are available (ES/SDS and ES/DDS), plus Envirograf® Product 100 rebated fire and smoke seals requiring a 10x6mm rebate in the edge of the door (CIS14/BS for 30 minutes and CIS15/BS for 60 minutes), and Envirograf® Product 71 intumescent paper for hinges (LPH) and latches/locks/closers (HP). Envirograf® Product 15 intumescent plugs are also available for hinge screws.

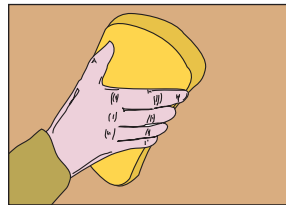
## UPGRADING FLAT PANELLED DOORS TO FIRE DOORS



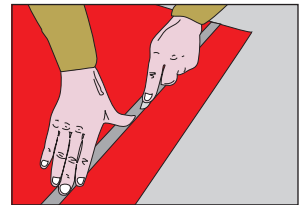
1. Scrape off all loose paint (not applicable for stained or polished doors).



2. Thoroughly rub down the door panels (inc. corners and edges) with coarse glass paper, providing a good key for the adhesive.



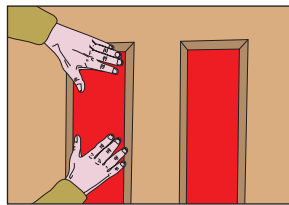
3. Thoroughly clean the panels, stiles, and rails of the door. Then coat the panels with the supplied Envirograf® Product 93 (Stabond).



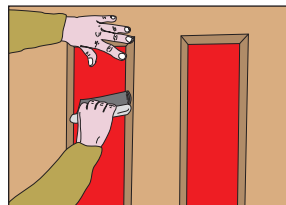
4. Measure the panel size and cut out the veneer/card required.



5. Apply product 93 Envirograf® Stabond, once dried apply Adhesive Product to the grey contact side of the card or veneer/plywood and the panel area.



6. Apply the veneer/card or fire card to the panel.



7. Using a flexible spatular firmly press the veneer/card to the panel ensuring absolute contact over the whole surface.



8. An example of existing panel doors fully upgraded to Fire Rated Doors

### SPECIAL NOTES ON COATINGS

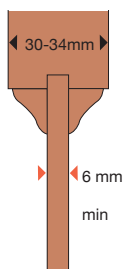
Previously painted or varnished doors DO NOT need to be stripped, provided that the paint or varnish is in good order. Follow normal preparation procedures as shown in the above illustrations. If the door needs to be stripped,

ensure that all the stripping material has been cleaned off the door and off the grain of the wood.

**NB: All knots must be appropriately treated before the application of Envirograf® products.**

## UPGRADING EXISTING PANELLED DOORS CONTINUED

### METHOD A: FOR DOORS 30-34MM



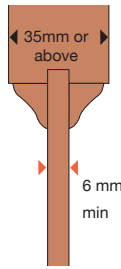
Intumescent card for painted panelled doors. This method is for doors with rails and stiles 30-34mm, with a minimum 6mm panel thickness. Cut the intumescent card to the panel size(s) and then coat the panels with Product 93 Stabond and allow to completely dry. Then apply, using a comb applicator, Product 46 intumescent adhesive (IA) to the grey contact side of the card and panels. Offer up the panels to adhere using a roller to ensure that there are no air bubbles and that the contact is uniform.

Any surplus adhesive that seeps out of the side can be removed with a finger or slightly damp cloth. Then apply two coats of Envirograf® Product 42 HW01/F white intumescent coating at 8m<sup>2</sup> per litre per coat to the stiles, rails, mullions, and beads, but **DO NOT PAINT THE CARD**. In a warm area, each coat should dry in one hour. When dry, apply one coat of Envirograf® Product 42 HW04/S spirit-based undercoat to the card only. When dry, apply one coat of HW Premier White/Colour top coat at 10-12m<sup>2</sup> per litre to the whole door (matt, satin, or gloss).

### DOORS WITH A CLEAR WOOD FINISH

Similar to the painted doors method above, except as follows. After cleaning off the panels and application of Stabond, cut the intumescent veneer/ply/gaboon to the panel size(s). Apply Envirograf® Product 46 intumescent adhesive (IA) to the door panel and back of the veneer (use Thixotropic high-strength adhesive for ply and gaboon) using a comb applicator and adhere to the door panels. Leave for one hour. If the door is already varnished, apply one coat of Envirograf® Product 42 HWAP/WB Primer at 12-14m<sup>2</sup> per litre to the stiles, rails, mullions, and beads but **DO NOT COAT THE PANELS**. HWAP/WB Primer is not necessary on untreated new wood. Once the HWAP/WB Primer is dry, apply two coats of Envirograf® Product 42 HW02/E clear coating at 8m<sup>2</sup> per litre per coat. In a warm area, each coat should dry in about 45 minutes. Then apply one top coat: Envirograf® Product 42 HW/Premier Clear (matt, satin) 10-12m<sup>2</sup> per litre to the whole door.

### METHOD B: FOR DOORS OVER 35MM



Intumescent card for painted panelled doors. For doors with stiles and rails 35mm or more. Owing to the thickness of the stiles, rails, and mullions, there is no need to coat them or the intumescent card or ply with intumescent coating. Preparation as for Method A except that when you have applied the intumescent card to the door panels, you only need to treat the beads with two coats of Envirograf® Product 42 HW01F white intumescent coating at 8m<sup>2</sup> per litre per coat. Then apply one coat of Envirograf® Product 42 HW04/S spirit-based undercoat before application of a top coat to the whole door (including the panels) in the colour and finish you require.

### DOORS WITH A CLEAR WOOD FINISH

For doors with stiles and rails 35mm or more. Application as for intumescent card above. Owing to the thickness of the stiles, rails, and mullions, there is no need to coat them or the intumescent card/veneer/ply/gaboon with intumescent coating. Preparation as for Method A except that when you have applied the intumescent card/veneer/ply/gaboon to the door panels, you only need to treat the beads with one coat of Envirograf® Product 42 HWAP/WP Primer (new or dipped doors do not require this), then two coats of Envirograf® Product 42 HW02/E clear intumescent coating at 8m<sup>2</sup> per litre per coat. In a warm area, each coat should dry in about 45 minutes. Then apply one top coat of Envirograf® Product 42 HW/Premier Clear (matt and satin) at between 10-12m<sup>2</sup> per litre.

### NOW AVAILABLE IN KIT FORM

<b>ES/MP/DK2C</b>	White	0900x1350mm	Mat/Firecard
<b>ES/MP/DK2/P</b>	Pine	1200x1200mm	Pine Veneer
<b>ES/MP/DK2/O</b>	Oak	1200x1200mm	Oak Veneer
<b>ES/MP/DK3</b>	Gaboon	1200x1200mm	Gaboon

More veneers are available. See price list.

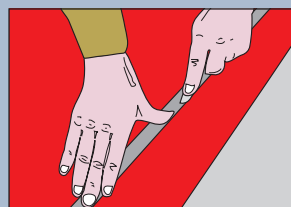
## DOOR MANUFACTURING SYSTEM: intumescent cloth sandwiched between timber panels

For manufacture of panelled doors, either flat panelled or raised-and-fielded panelled doors, giving 30 minute doors. The thickness of the stiles and rails can be from 36mm upwards, with panel areas made from two 6mm thick flat panels with Envirograf® Product 38 (ES/MP) cloth sandwiched between them and adhered together with Envirograf® Product 46 intumescent adhesive (IA). The procedure is the same for raised-and-fielded panels, where each side of the fielded area is 6mm thick. Stiles and rails can be 35mm down to 30mm thickness if coated with Envirograf® Product 42 (HW02/E clear or HW01/F white intumescent coating) followed by Envirograf® Product 42 clear or coloured top coats.

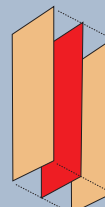
For 60 minutes fire protection, the thickness of the stiles and rails must be from 44mm to 52mm, with panel areas made from two 12mm thick flat panels with Envirograf® Product 38 (ES/MP) cloth sandwiched between them and adhered together with Envirograf® Product 46 intumescent adhesive (IA). For raised-and-fielded panels, the fielded area with the cloth should be not less than 9mm thick.

**IMPORTANT: panels in all cases must be rebated into the stiles, rails, and mullions to a depth of 15mm.**

Envirograf® Product 38 (ES/MP) cloth can be laminated between two 12mm thick tongued-and-grooved timbers to make a ledged-and-braced door for 30 minutes fire protection or Product 38 (ES/MP) cloth can be laminated between two 18mm thick tongued-and-grooved timbers to make a ledged-and-braced door for 60 minutes rating.



1. Measure and cut the Envirograf® Product 38 ES/MP intumescent material to match the panel sizes.



2. Sandwich ES/MP material between timber panels, adhering with Product 46 (IA adhesive). Then manufacture doors, ensuring that panels are rebated into a depth of 15mm and all beads are fixed with pins.



# Surgery

- Extreme cleanability
- Resistance to wear and tear
- Chemical Resistance

## The Easy Clean Coating for HW and Q/VFR

Envirograf® have now introduced what is probably the most robust emulsion paint now available on the UK market. The Easy Clean coating has been extensively tested with outstanding results. This coating offers excellent cleanability on dust and general dirt and has chemical resistant qualities. The coating has been specifically designed for hospitals, surgery's, day centres, care homes, schools, colleges as well as places such as restaurants and shopping centres. The Easy Clean coating also has the advantage of offering longer paint cycles and easier maintenance than other heavy use area emulsions all at very little additional cost above a good quality proprietary emulsion.

				
<b>Claro</b> 1442	<b>Demring</b> 1269 2502-Y17R	<b>Goldilocks</b> 1012	<b>Sand</b> 1140	<b>Sleeping Beauty</b> 2521 1809-Y79R
				
<b>Tea Flower</b> 2104 S1002-Y50R	<b>Stone</b> 1927 1801-Y44R	<b>Sugartop Mountain</b> 2202 S3005-Y80R	<b>Winter Mist</b> 1926 S2002-Y	<b>Spring Foliage</b> 8088
				
<b>One Thousand and One Nights</b> 4454	<b>Fairy</b> 6233 1205-B99G	<b>Pirate</b> 5306	<b>Lake View</b> 5225 S1510-B20G	<b>Sea Emerald</b> 6084
				
<b>Trend</b> 4136	<b>Fog Mist</b> 9903	<b>Matrix</b> 9913	<b>Magic Powder</b> 3115	<b>Rose Leaf</b> 3114

Please note: Possible slight colour deviations depending on substrate

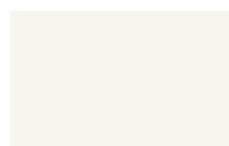
\* Easy Clean can also be supplied in most BS, RAL or NCS colours

# HW/ULTIMATE colour range

**HW/ULTIMATE is a fast acting, hard wearing and advanced water-based solution for the long term protection of exterior fencing, decking, cladding, fascias and other timber applications.**

The HW/ULTIMATE range offers up to a 12 years maintenance free protection for timber. This exciting range includes new eye-catching colour options that are quick-to-apply and offer high performance.

It is the first of its type - a Volatile Organic Compound (VOC) of only 40 grams makes HW/ULTIMATE low odour and ensures minimum impact on the environment.



Adam White



Bond Grey



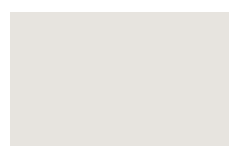
Lawson Cream



Stirling



Paladian Pink



Allason Chalk



Boullee



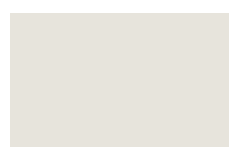
Corbusier Cream



Gough Green



Malton Mink



Brunelleschi White



Gibbs Grey



Moffat Ground



Gehry Stone



Rogers



Inigo Jones



Bayes Green



Nash Stone



Brakspear



Bramante Brown





HW/ULTIMATE is available in a choice of new look tins and reflects Envirograf's strong environmental commitment. HW/Ultimate has been rigorously tested in the harsh Norwegian climate, providing a high quality finish and outstanding weather resistance.

HW/ULTIMATE is also suitable as a cost effective and highly resilient weather protection and anti-corrosion coating for masonry and steel work applications. HW/ULTIMATE can also be mixed to match most BS, RAL or NCS colour requirements.

				
<b>Borromini Blue</b>	<b>Perrault Stone</b>	<b>Da Vinci</b>	<b>Rinaldi Red</b>	<b>Krier Turquoise</b>
				
<b>Shepherd Sky</b>	<b>Morelli</b>	<b>Fontana Aqua</b>	<b>Pugin Brick</b>	<b>Cubitt</b>
				
<b>Vanbrugh Blue</b>	<b>Drais Blue</b>	<b>Lutyens Lime</b>	<b>Alvar Plum</b>	<b>Breuer Black</b>
				
<b>Wren Grey</b>	<b>Foster</b>	<b>Goldfinger</b>	<b>Michelangelo</b>	<b>Bentley</b>

Please note: Possible slight colour deviations depending on substrate

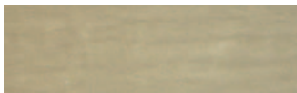
\* Easy Clean can also be supplied in most BS, RAL or NCS colours



8 year  
maintenance  
cycle

# Translucent wood coating range for HW and ES/VFR

The Envirograf® Translucent Range has been designed to enhance the natural wood finish whilst offering excellent protection qualities. These Translucent coatings deliver the definitive durable finish without compromising looks or the environment, which is why it is proving a popular choice with architects and specifiers requiring a high performing product. Formulated for durability, this technically superb exterior wood coating boasts a maintenance cycle of 8 years, while ensuring the same integrity translucence throughout its long life.



Antique Grey



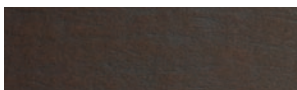
Burma Teak



Chestnut



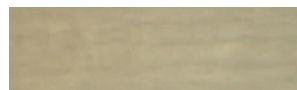
Dark Brown



Deep Mahogany



Green Ochre



Mid Grey



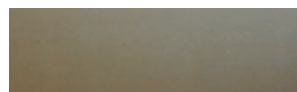
New Cherry



Pale Oak



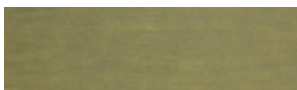
Rust



Sand Grey



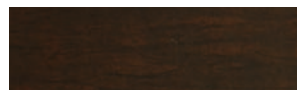
Sandstone



Silver Birch



Soot Grey



Tar Brown



Warm Ember



8 year  
maintenance  
cycle

# Premier colour range for HW and Q/VFR

**The Premier wood coating range has been formulated to enhance the natural look of wood while maintaining the highest standards of protection against the UK's climate.**

Not only do they give you exceptional protection for all your exterior timber. The Premier coatings bring out the natural beauty of the grain. The opaque stain coating also enhances the woodgrain, with its low density characteristics.

Using natural oils, as well as the latest alkyd and acrylic resins, these Premier coatings will remain flexible, durable and hardwearing for years to come and offers long maintenance cycles of between 5 to 8 years.

						
New White	White Flake	Ivory	Porcelain	Wall Chalk	White Pointing	White
						
Trellis Green	Lightsand	Fawn	Stone	Lemon White	Shaded Satin	Linen
						
Verditer	Green Court	Apple Sage	Pale Mint	Soft Cane	Cream	Sunbury Lemon
						
Smoke Green	Spring Green	Summer House	Grey Green	Green Slate	Duck Egg	Powder Pale
						
Foster	Stow Blue	Cotton Light	Ludworth Blue	Blue Stone	River Stone	Ice Sky
						
Burgundy	Antique Red	Fanchon Red	Deep Earth	Dianthus Pink	Fresh Plaster	Pink Mallow
						
Mahogany	Java Teak	Clover Brown	Banbury	Blue	Lead	Dark Olive
						
Ebony	Black Grate	Canadian Bark	Russet	Nut Brown	Dead Wood	Ground Clay

### Typical areas of use

Airports  
Shopping centres  
Sports stadiums  
Factories  
High-rise buildings  
Office blocks

20 year  
maintenance  
cycle

# Intumescent coatings for steel protection

**It can take just a few minutes for unprotected steelwork in a building to attain temperatures of around 550°C in a fire. At this temperature, steelwork loses its load bearing capacity and the structure is likely to collapse, giving little time for people to evacuate and even less time for the fire service to bring the fire under control.**

Building regulations and legislation demand fire protection to upgrade the fire resistance of buildings and the Envirograf® range of intumescent coatings can certainly stand the heat. As modern design often involves steel being expressed as an architectural feature, intumescent coatings are frequently the protection of choice

EP/FS/INT offers up to and including 90 minutes of fire protection and can be applied both on and off site.

EP/FS/INT is a waterborne product with low odour, often chosen as the ideal solution for on-site application. A full

range of top sealers, both waterborne and solvent based are also available to complement the intumescent coating.

The helpful Envirograf® technical team can offer advice on specifying intumescent, interpreting the different legislation to recommend the most suitable Envirograf® products for your project. Their expertise will take into account the Environmental Protection Act, plus Construction, Design and Management regulations as well as factors such as the design of the structure, desired service life, conditions during application and exposure conditions.

Increasing environmental awareness combined with legislative pressures and regulations place a demanding burden on the specifier. Factors to be considered are not only the design of the structure but also conditions during application, exposure conditions after application and type of fire risk - e.g. hydrocarbon or cellulosic.

ISO 12944 is widely used to define the environmental exposure and corresponding corrosivity category.

The Envirograf® technical team can give guidance and will recommend which products are most suitable for your project.

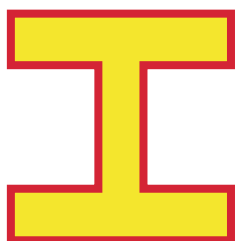




## HOW TO SPECIFY ENVIROGRAF® STEEL PROTECTION

### Loadings

To calculate the appropriate loading, it is necessary to first determine the period of fire resistance required. Several further factors need to be considered including:



**A** **Hp**

**Fig 1** Heated perimeter (HP) to its cross section area (A)

- Shape of the steel and the number of sides exposed.
- Whether a steel beam, supporting concrete floor or supporting column.
- Its Hp/A value or section factor value refer to Figure 1.
- The choice of Envirograf® steel protection product.
- The appropriate loading can then be calculated from the loading tables see pages

## STEEL PROTECTION COATINGS

### 1. PRIMER OPTIONS

**EP/FS/P/Primer** ● **Water-based**

**INTERNAL**

A water-based red coloured primer

**EP/FS/EXP/Primer** ● **Solvent-based**

**INTERNAL EXTERNAL**

An anticorrosive 2 part primer especially designed for the Envirograf® steel paint system, offering outstanding adhesive qualities, ensuring a quality adherence to all steel surfaces.

### 2. INTUMESCENT COAT

**EP/FS/INT/** ● **Water-based**

**INTERNAL EXTERNAL**

### 3. TOP COAT

**EP/FS/TCW/enviro** ● **Water-based**

**INTERNAL**

A water based top coat for internal use only.

**EP/FS/TCE** ● **Solvent-based Epoxy**

**INTERNAL EXTERNAL**

EP/FS/TCE is a two pack high impact epoxy acylic resin coating system. Designed for internal and external areas that require high levels of durability. These top coats can be supplied to and BS or RAL colour specified.

## DIFFERENT TYPES OF FIRE NEED DIFFERENT TYPES OF PROTECTION

- Cellulosic fires; burning building products such as wood, paper, fabrics and small amounts of flammable liquids. Applies to commercial and public buildings. Thin film intumescent coatings like Envirograf® Steel Coating System to be used.
- Hydrocarbon fires; burning liquid and/or gaseous hydrocarbon products, temperature increasing to 1100°C in 10 minutes. Applies to offshore installations, FPSO's and petrochemical plants. Thick film intumescent epoxy to be used.
- Jet fires; as above products under pressure, temperature increasing to 1300°C in 5 minutes. Thick film intumescent epoxy to be used.
- Intumescent coatings may well look like conventional paints. However in a fire they swell to become a meringue-like substance which provides vital insulation for the structural steelwork.
- The degree of fire protection needed is normally defined by building regulations and the thickness of the coating is specified to satisfy those requirements.
- Fire resistance is an expression of time in minutes - generally 30 and 90 minutes.
- The heating rate of the member is one of the contributory factors to the fire resistance. This governs the time taken to reach its specific failure temperature.

For areas of high humidity such as swimming pools and sauna areas a series of chlorinated rubber coatings are available. These offer either a one hour fire protection rating or a final top coat to the steel paint system shown above.



## ENVIROGRAF® STEEL PROTECTION – waterborne

### Loading requirements in millimetres

#### Three sided beams

#### 30 MINUTES

Section Factor Hp/A	DFT Loading mm	WFT Loading Mm*	Theoretical Coverage M <sup>2</sup> per litre
To 320	0.205	0.285	3.51

#### 60 MINUTES

Section Factor Hp/A	DFT Loading mm	WFT Loading mm*	Theoretical Coverage M <sup>2</sup> per litre
25	0.232	0.322	3.10
45	0.248	0.344	2.90
60	0.261	0.363	2.76
70	0.269	0.374	2.68
80	0.277	0.385	2.60
90	0.285	0.396	2.53
100	0.293	0.407	2.46
110	0.302	0.419	2.38
120	0.310	0.431	2.32
130	0.318	0.442	2.26
140	0.326	0.453	2.21
150	0.334	0.464	2.16
160	0.342	0.475	2.11
170	0.351	0.488	2.05
180	0.359	0.499	2.01
190	0.367	0.510	1.96
200	0.375	0.521	1.92
210	0.395	0.549	1.82
220	0.415	0.576	1.73
230	0.435	0.604	1.66
240	0.455	0.632	1.58
250	0.475	0.660	1.52
260	0.495	0.688	1.45
270	0.514	0.714	1.40
280	0.534	0.742	1.35
290	0.554	0.769	1.30
300	0.574	0.797	1.25
305	0.584	0.811	1.23
310	0.594	0.825	1.21
315	0.604	0.839	1.19
320	0.614	0.853	1.17

#### 90 MINUTES

Section factor Hp/A	DFT loading mm	WFT loading mm*	Theoretical coverage m <sup>2</sup> per litre
60	0.301	0.418	2.39
65	0.317	0.440	2.27
70	0.333	0.463	2.16
75	0.349	0.485	2.06
80	0.365	0.507	1.97
85	0.381	0.529	1.89
90	0.398	0.553	1.81
95	0.414	0.575	1.74
100	0.430	0.597	1.67
105	0.446	0.619	1.61
110	0.462	0.642	1.56
115	0.478	0.664	1.51
120	0.494	0.686	1.46
125	0.510	0.708	1.41
130	0.527	0.732	1.37
135	0.543	0.754	1.33
140	0.559	0.776	1.29
145	0.575	0.799	1.25
150	0.591	0.821	1.22
155	0.607	0.843	1.19
160	0.623	0.865	1.16
165	0.639	0.888	1.13
170	0.655	0.910	1.10
175	0.672	0.933	1.07
180	0.688	0.956	1.05
185	0.704	0.978	1.02
190	0.720	1.000	1.00
195	0.736	1.022	0.98
200	0.752	1.044	0.96
205	0.768	1.067	0.94

\*Volume solids 72 +/- 3%

For information on compatible primers and decorative sealers, please refer either:  
 Envirograf® Steel Protection Technical Data Sheet  
 Application Guidance Notes

Alternatively contact  
 The Envirograf® Support Centre  
 01304 842 555



## ENVIROGRAF® STEEL PROTECTION – waterborne

Loading requirements in millimetres

Four sided sections e.g. beams and columns

### 30 MINUTES

Section Factor Hp/A	DFT Loading mm	WFT Loading mm*	Theoretical Coverage m² per litre
To 320	0.242	0.336	2.98

### 60 MINUTES

Section Factor Hp/A	DFT Loading mm	WFT Loading mm*	Theoretical Coverage m² per litre
30	0.245	0.340	2.94
40	0.263	0.365	2.74
50	0.284	0.394	2.54
60	0.305	0.424	2.36
70	0.326	0.453	2.21
80	0.347	0.482	2.07
90	0.368	0.511	1.96
100	0.389	0.540	1.85
110	0.410	0.569	1.76
120	0.431	0.599	1.67
130	0.452	0.628	1.59
140	0.473	0.657	1.52
150	0.494	0.686	1.46
160	0.515	0.715	1.40
170	0.535	0.743	1.35
180	0.556	0.772	1.29
190	0.577	0.801	1.25
200	0.598	0.831	1.20
210	0.619	0.860	1.16
220	0.640	0.889	1.13
230	0.670	0.931	1.07
240	0.720	1.000	1.00
250	0.770	1.069	0.94
260	0.820	1.139	0.88
270	0.870	1.208	0.83
280	0.920	1.278	0.78
290	0.970	1.347	0.74
300	1.020	1.417	0.71
305	1.045	1.451	0.69
310	1.070	1.486	0.67
315	1.095	1.521	0.66
320	1.120	1.556	0.64

### 90 MINUTES

Section Factor Hp/A	DFT Loading mm	WFT Loading mm*	Theoretical Coverage M² per litre
60	0.583	0.810	1.23
65	0.616	0.856	1.17
70	0.648	0.900	1.11
75	0.681	0.946	1.06
80	0.714	0.992	1.01
85	0.747	1.038	0.96
90	0.779	1.082	0.92
95	0.812	1.128	0.89
100	0.845	1.174	0.85
105	0.878	1.219	0.82
110	0.910	1.264	0.79
115	0.943	1.310	0.76
120	0.976	1.356	0.74
125	1.009	1.401	0.71
130	1.041	1.446	0.69
135	1.074	1.492	0.67
140	1.107	1.538	0.65
145	1.140	1.583	0.63
150	1.172	1.628	0.61
155	1.205	1.674	0.60
160	1.238	1.719	0.58
165	1.271	1.765	0.57
170	1.303	1.810	0.55
175	1.336	1.856	0.54
180	1.369	1.901	0.53
185	1.402	1.947	0.51
190	1.434	1.992	0.50
195	1.467	2.038	0.49
200	1.500	2.083	0.48
205	1.533	2.129	0.47
210	1.566	2.175	0.46
215	1.598	2.219	0.45
220	1.631	2.265	0.44

\*Volume solids 72 +/- 3%

Date of issue: February 2008

# Fire Protection in Loft Spaces

Loft extensions are now one of the most common methods of increasing living space in the domestic housing sector. Building Regulations offer clear guidance on the fire protection requirements specific to loft extension projects, which often requires upgrading walls and ceilings to a 30 minute fire rating.

Conventional methods of upgrading ceilings and walls usually includes fitting a new layer of plasterboard resulting in the re-plastering and decorating of these areas, which all add to the overall cost to the development through the large amount of

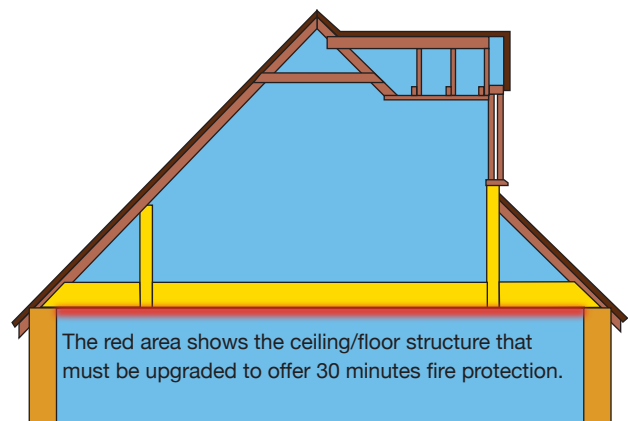
labour and material expense of a loft extension project. Envirograf® have now developed a unique fire protection coating designed for upgrading 9mm or 12mm plasterboard for loft extension developments.

***“You can save time and reduce the cost of loft extensions by thousands!”***

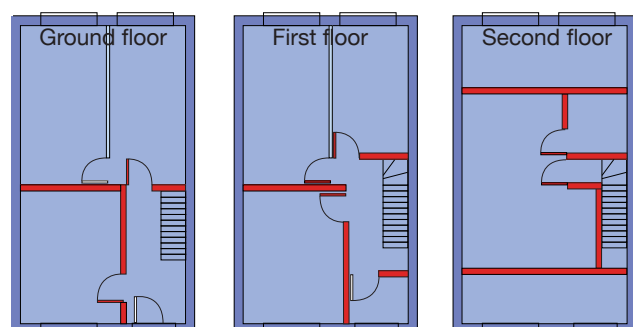
## ADVANTAGES

- Upgrade ceilings and walls
- To 60 minutes fire rating with the Envirograf® coating system
- No extra layer of plasterboard, skimming or decorating required for upgrading walls and ceilings!

Traditional method	New method
Upgrade walls and ceilings	Envirograf® system Products 105
Add new layer of plasterboard, re-skim and decorate	Coat existing ceiling with EP/CP to upgrade ceiling to 1 hour fire rating



Plan drawings show a typical loft extension. Red areas illustrate walls that require a fire rating. All ceilings in the means of escape area will require upgrading to 30 minutes fire rating.





## APPLICATION

All walls and ceilings that require upgrading can now be fire rated to the correct integrity required by simply coating with the Envirograf® EP/CP Smooth Coating system.

Ceilings covered with skimmed 12.5mm plasterboard and partitioned walls clad with 9mm skimmed plasterboard can be upgraded to both a 30 - 60 minute fire protection.

Follow the instructions shown below and save hundreds of pounds on each project!

The EP/CP Smooth Coating System is designed for plasterboard ceilings and walls.

***“New layers of plasterboard, skimming and redecoration are no longer required in loft extension projects.”***



The skimmed plasterboard surface must be clean and dry, free from dust, grease and water-repellent surfaces. All wallpaper must be removed. If the surface is particularly porous, then apply a coat of Envirograf® Product 93 (Stabond) first.

### EP/CP/P/Primer ● Water Based

EP/CP/P adhesion primer is a water-based clear primer applied before the EP/CP coating.

**Coating rate** 1 coat, 10-12m<sup>2</sup> per litre

### EP/CP

EP/CP is an intumescent water based coating. As soon as this coat has dried a protective topcoat must be applied. Allow to dry thoroughly.

**Coating rate** 2 coats 8m<sup>2</sup> per litre per coat

### HW/Acrylic Matt Emulsion

HW/Acrylic is a hardwearing and flexible topcoat. This coating is excellent for areas that require high levels of durability and flexibility where movement may occur. This coating has especially been designed as a top coat for EP/CP.

**Coating rate** 1 or 2 Coats.

**Coverage** Apply at 12m<sup>2</sup>/litre

**Finish** Matt

## OTHER APPLICATIONS FOR EP/CP



### UPGRADING LATH & PLASTER CEILINGS

The EP/CP fire protection coating has been extensively used on lath & plaster ceilings and wall offering a 60 minute fire rating. This coating system offers an excellent solution to refurbishment projects where ceilings and walls cannot be replaced with new plasterboard products, allowing the original features to remain in Graded historical buildings.



### CONCRETE PROTECTION

The EP/CP fire protection coating has been used on concrete surfaces offering a 60 minute fire rating. Applied following the process shown above this coating system is ideal for concrete car park areas and other areas that require fire protection, particularly in high risk flammable storage spaces.

## 3-2-1 LIQUID FIRE RETARDANT SOLUTIONS PRODUCT 66 & 67

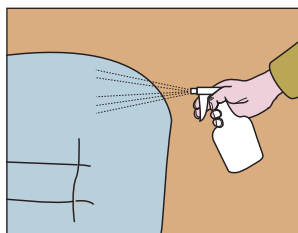
Intumecent Systems Ltd has developed a range of liquid fire retardant solutions to treat a wide range of inflammable materials that are often the initial items that ignite in major fires. The 3-2-1 range is suitable for many common types of materials, upholstery, bedding, mattresses, curtains, carpets, polyurethane foam, Christmas trees, paper, theatrical materials etc.

### THREE TYPES AVAILABLE

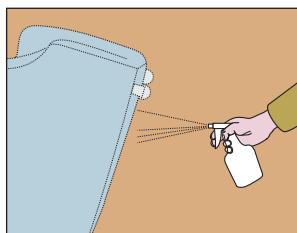
- **3-2-1 For standard covering** must be dry cleaned
- **3-2-1 Special** for artificial plants etc
- **3-2-1 Washable** for standard coverings requires washing

### ADVANTAGES

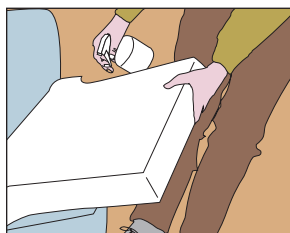
- can prevent the spread of flame on many types of materials
- can help landlords/hoteliers etc meet new regulations\*
- Environmentally friendly



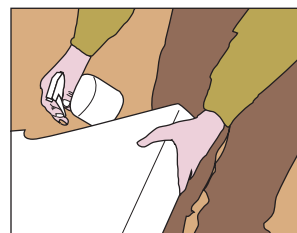
**Armchairs and settees**  
Place the furniture upright, spray the back, front and sides ensuring that the material is wet and has soaked in the 321/W



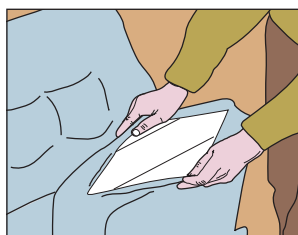
Place the chair or settee on its back and spray all underside materials.



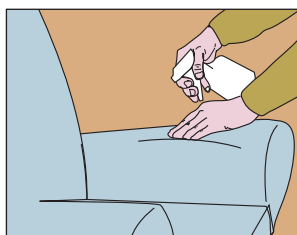
If the seat cushions are removable spray all the material under the seat, ensure that the 321/W is applied down the sides.



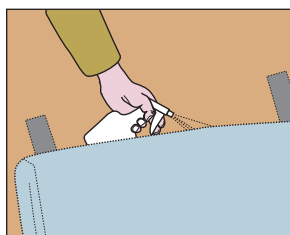
Spray 321 on all sides of the foam cushion. Ensure that the foam absorbs the liquid by pressing the sponge with your fingers.



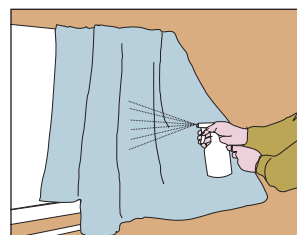
Remove seat cushions from their coverings. If the cushion is not removable, spray pressing the liquid into the cushion to ensure absorption.



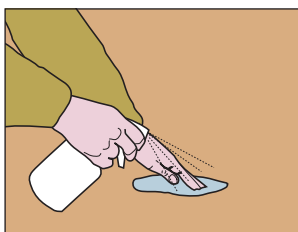
Spray backs, arms and all other areas where foam is underneath materials. Ensure that the foam absorbs the liquid by pressing the sponge with your fingers.



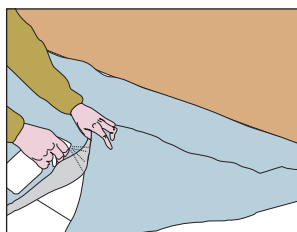
**Leather and Rexine Furniture**  
To treat the foam tip the chair or settee on its back, take off the under material. Spray and press the liquid into the foam ensuring full absorption.



**Curtains**  
For single, non lined curtains spray on one side whilst hanging until the material is moist. Lined curtains spray both sides.



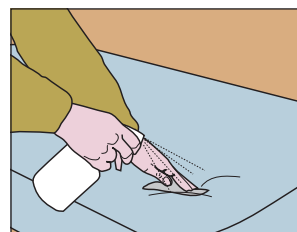
**Carpets**  
Spray the carpet while laid. if the carpet is foam backed use cloth pad to press 3-2-1/W thoroughly into the carpet ensuring full absorption.



**Sheets, Blankets and Covers**  
These can be sprayed with 3-2-1/W and washed 4 times then re-treat either by respraying or dipping in the 3-2-1/W. Wring out into a bowl and replace the residue into the bottle.



**Kitchen safety**  
Soak a tea towel in 3-2-1 and leave near the cooking area and if necessary use as a fire blanket for pan fires.

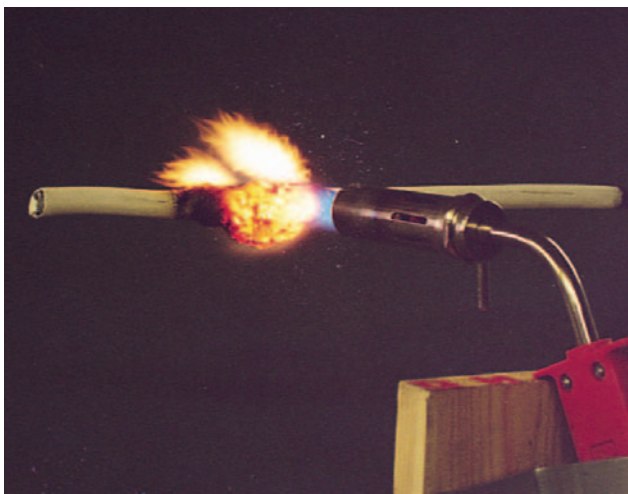


**Mattresses**  
If possible remove cover. Spray on the 3-2-1/W pressing the liquid into the foam with a cloth pad, ensuring full absorption. Spray the cover completely until wet. If the cover is not removable then follow the above procedure with the cover on.

\*For accommodation subject to lettings, this must first be authorised by your local Trading Standards Office.



## FIRE PROTECTION COATING FOR PVC ELECTRICAL CABLES – PRODUCT 80



This Envirograf® coating is used for protection of plastic-covered electrical cables, giving a longer period of operation in a fire. It inhibits PVC fumes in a fire, and does not insulate or have any harmful effect on working cables. Dries in approx. 1 hour. When dry, Envirograf® cable coating is flexible, and it will move without cracking, making it ideal for crane cables, elevator cables, mains cables, and buildings where elevators are required for evacuation.

**Performance:** This product was tested according to the principal of BS476 Part 22 (1987) achieving 97 minutes. Also tested to the European standard EN1363-1 (2000), achieving 2 hours of fire protection.

## FIRE PROTECTION COATING FOR GLASS FIBRE & U/PVC WINDOWS AND DOORS – PRODUCT 81



A virtually odourless clear or white coating with coverage of approximately 4m<sup>2</sup> per litre, available in 1 litre, 2½ litre, and 5 litre tubs (larger quantities available). Other colours available.

**Use:** Used on plastic and glass fibre, such as the internal section of glass fibre boats, cable housings, engine housings, and the internal side of glass fibre sheeting.

## STABOND STABILISING BONDING/ SEALING LIQUID – PRODUCT 93

Bonding/sealing liquid for porous surfaces such as plaster ceilings/walls (to seal the surface over old flaky plaster or new plaster) and to seal wood when using Product 38 door upgrade.

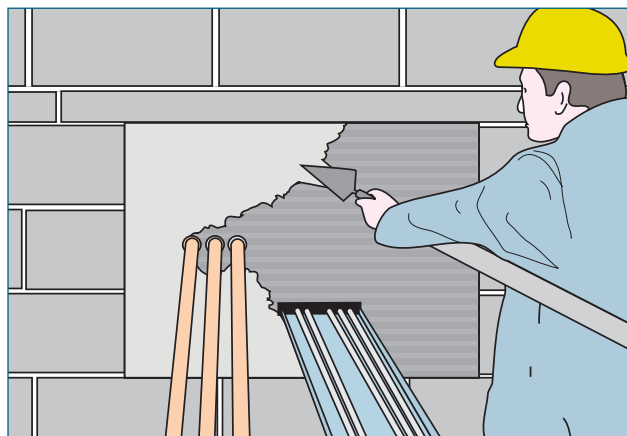
**Use:** For sealing distempered, emulsioned, or porous ceilings/walls. Good for sealing prior to using Envirograf® Product 46 (intumescent adhesive as used in Product 38 door upgrade kits), Product 92 (clear coating), Product 96 (textured coating), or Product 105 (EP/CP paint for plasterboard). See data sheet for use with Product 84 (intumescent paper).

## FIREPROOF COATINGS FOR SLABS – PRODUCT 86



A white intumescent coating for application to RW6 rock fibre slabs and non-fibrous slabs (as applied to Envirograf® Products 4 and 5). Supplied in 1 litre, 2½ litres, and 5 litres (other quantities available).

**Use:** Apply the Envirograf® coating by brush or trowel to either high density RW6 rock fibre slabs or Envirograf® Product 41 (high density fireproof sponge) to provide extra fire protection.



**Performance:** Tested to BS476 Part 22 (1987), achieving an integrity of 4 hours. Also tested to European Standard EN1363-1 (2000).

## ENVIROGRAF® PRODUCT XYZ INSUGLASS® – PRODUCT 123

A clear coating for glass or plastics materials. It is a two-part aqueous mix with a coverage of 8m<sup>2</sup> per litre, and a choice of either Product 42 (HW05 top coating) or armoured protective roll film. The armoured film offers the advantage of protection against glass fragmentation in the event of impact damage to the glass or explosion etc plus extra insulation to the building. Almost 98% of harmful UV rays are absorbed by the armoured film.

**Performance:** Tested on wired clear glass 980mm x 1500mm, achieving 67 minutes integrity and 50 minutes insulation. Also tested on 6mm standard clear glass, achieving 60 minutes integrity and 30 minutes insulation.

## PRODUCT 38

The product 38 range comprises, coatings, fire rated card and a wide variety of real wood veneers. Application requirements is dependant upon the door dimensions. Please refer to our price list or contact our technical department for further details when ordering this product.

## PRODUCTS 42 COLOUR SYSTEM

### HWAP/WB Primer

1 litre 2½ litres 5 litres

### HW01/F White

#### Intumescent Coating

1 litre 2½ litres 5 litres

20 litre buckets

### HW/Undercoat White

1 litre

### HW/Excel White

1 litre 2½ litres 5 litres

### HW/Premier White

1 litre 2½ litres 5 litres

### HW/Ulitimate/White

1 litre 2½ litres 5 litres

### HW/Superb White

1 litre 2½ litres 5 litres

### HW/Easy Clean

1 litre 2½ litres 5 litres

### HW/Acrylic White

1 litre 2½ litres 5 litres

## PRODUCTS 42 CLEAR SYSTEM

### HWAP/WB Primer

1 litre 2½ litres 5 litres

### HW02/E Clear Intumescent Coating

1litre, 2½ litres, 5 litres, 20  
litre buckets

### HW/Premier Clear

1 litre 2½ litres 5 litres

### HW/Excel Clear

1 litre 2½ litres 5 litres

1 litre 2½ litres 5 litres

### HW/Superb Clear

1 litre 2½ litres 5 litres

### HW/Ulitimate Clear

1 litre 2½ litres 5 litres

### HW05/UVR

1 litre 2½ litres 5 litres

### HW/Translucent

1 litre 2½ litres 5 litres

## PRODUCT 92 ES/VFR CLEAR

### ES/VFR Primer

1 litre 2½ litres 5 litres

### ES/VFR Clear

1litre 2½ litres 5 litres

### ES/VFR/Hard Wearing

1 litre 2½ litres 5 litres

### ES/VFR/Translucent

1 litre 2½ litres 5 litres

## PRODUCT 92 Q/VFR CLEAR

### Q/VFR/C

1litre 2½ litres 5 litres

### Q/VFR/Premier Clear

1 litre 2½ litres 5 litres

### Q/VFR/Premier UV+Clear

1 litre 2½ litres 5 litres

### Q/VFR/UVR

1 litre 2½ litres 5 litres

## PRODUCT 92 COLOUR SYSTEM

### ES/VFR Primer

1 litre 2½ litres 5 litres

### ES/VFR/W

1litre 2½ litres litres

### HW/Acrylic

1 litre 2½ litres 5 litres

## PRODUCT 92 Q/VFR COLOUR

### Q/VFR/W

1litre 2½ litres 5 litres

### Q/VFR/Premier

1 litre 2½ litres 5 litres

### QVFR/Premier+ White

1 litre 2½ litres 5 litres

### Q/VFR/Easy Clean

1 litre 2½ litres 5 litres

## PRODUCT 103

*Intumescent coating kits to  
upgrade raised and fielded  
doors to fire-rated doors*

### White Kit

½ ltr Primer

1½ ltr Intumescent coating,

½ ltr Top Coat

### Clear Kit

½ ltr Primer

1½ ltr Intumescent coating

½ ltr Top Coat

### ES/RFC/MM

White Matt Water Based

### ES/RFC/WS

White Satin Water Based

### ES/RFC/WG

White Gloss Water Based

### ES/RFC/CM

Clear Matt Water Based

### ES/RFC/CS

Clear Satin Water Based

### HW/Acrylic Emulsion

1 litre 2½ litres 5 litres

## PRODUCT 96/105

### EP/CP/P Primer

1 litre 2½ litres 5 litres

### EP/CP

1 litre 2½ litres 5 litres

### HW/Acrylic Emulsion

1 litre 2½ litres 5 litres

This product is available in  
a smooth or stippled finish.  
Please state which finish at  
time of ordering.

## PRODUCT 83

### INTUMESCENT COATING FOR STEEL PROTECTION

### EP/FS/P Primer

1 litre

### EP/FS/EXP Primer

A 2-pack Primer for use on  
external steelwork.

1 litre

### EP/TH/1 Thinners for EP/ FSE/XP Primer

1 litre

### EP/FS/INT Intumescent Coating

### EP/FS/TCW Top Coat

A water based protective  
coating for INTERNAL use.

1 litre

### EP/FS/TCE Top Coat

An epoxy resin, 2-part  
protective coating.

1 litre

### EP/TH Thinners

for EP/FS/TCE Top Coat

1 litre

## PRODUCT 66

### 3-2-1 FIRE RETARDANT LIQUID REF

½ litre spray bottle

1 litre bottle

2 litre bottle

2½ litre starter pack

3½ litre pack

5 litre bottle

25 litre tub

### 321/W WASHABLE FIRE RETARDANT

½ litre spray bottle

1 litre bottle

2 litre bottle

2½ litre starter pack

3½ litre starter pack

5 litre bottle

25 litre tub

## PRODUCT 67

### 3-2-1 SPECIAL

½ litre spray bottle

1 litre bottle

2 litre bottle

5 litre bottle

## PRODUCT 80

EP/C 1 litre

## PRODUCT 81

EP/GC 1 litre

## PRODUCT 93

ES/Stabond

## PRODUCT 86

CS Coat Intumescent  
White

## APPLICATION FOR WOODEN PANELLING IN OLD BUILDINGS

When applying a coating  
to panelled wood areas  
that are fixed to a wall,  
it is important to ensure  
that the new coatings are  
protected from moisture  
penetration.

Please use the HWAP/  
APS Primer before  
applying Products 42  
and 92.

Coating rate: one coat at  
12-16m².

Regional Office