

Painthouse

For the love of colour

Technical Data Sheet

Painthouse Interior Fire Retardant Paint
(PH IFRP)



General product description

Painthouse Interior Fire Retardant Paint (PH IFRP) is a decorative, hard-wearing, acrylic paint with special properties to protect against the spread of fire without harmful chemicals. Formulated to the highest specification, offering unsurpassed intensity of colour.

All colour pigments are water-based and provide a smooth, rich and non-reflective, matt finish; perfect for a contemporary look and to hide surface imperfections. Painthouse Fire retardant paint is a one pack system that usually requires no primer, no top coat, is easy to use and very easy to clean.

Properties and precautions

- Designed, manufactured and tested to obtain the best possible performance and reaction to fire. Applying PH IFRP onto a non-fire rated surface, upgrades the fire performance of the surface by reducing the spread of flame across it. The intumescent action of the paint also increases the fire resistance of the surface which means it can be used as part of a fire compartment.
- Painthouse IFRP colours are ideal for upgrading architectural protected buildings where walls, ceilings, doors, covings etc. need to be kept and maintained in their original form and material. In addition, applying PH IFRP on top of existing painted surfaces (both water and solvent based) will upgrade the fire performance of existing painted surfaces.
- Having achieved the best possible emission classifications (see table for emissions data) all Painthouse colours are near zero VOC, non-toxic and virtually odourless; making PH IFRP perfect for anyone that may suffer from allergies and breathing related conditions associated with exposure to chemical emissions.
- The durability of painted surfaces is important, for instance the walls and ceilings in hallways and staircases. Abrasion through everyday contact can reduce the effectiveness and appearance of paints. PH IFRP is designed to give long lasting durability and performance in service over at least 12 years. Surfaces can be wiped clean using a damp cloth with no risk of washing the paint off.
- Using spray equipment is the most cost-effective application as PH IFRP can be applied in one coat, saving paint and reduces time. For roller and brush applications, two coats are recommended, no topcoat is required. For further information, please refer to page 2 under the Application Section.
- PH IFRP is suitable for most type of surfaces, including concrete, bricks, masonry, primed steel, wood, gypsum, plastics and most non-porous surfaces, in most cases without a primer. PH IFRP also protects the underlying substrates.
- With added preservatives that protect from bacterial and fungal growth, PH IFRP is halogen free and provides extra protection to health. In addition to its no harmful emissions formula.
- PH IFRP is not intended for application on bituminous substrates, or substrates that can exude certain oils and plasticizers or solvents. Do not attempt to apply Painthouse in very damp or humid conditions, or in extreme temperatures. Not recommended for use in constant humid areas. Not suitable for floors.

Application

Prepare

Before painting, ensure the surface you intend to paint is clean, dry and free from grease, dirt, dust, and other contaminants. Remove any old or flaking paint until you have a sound surface; if in doubt remove all existing coatings. Please refer to the Primers section on Page 3 for further details.

Roller/Brush

Please note, PH IFRP base is pre-diluted with 5% water. For roller and brush application, the paint can be diluted up to 20% (by volume), however, 5% is the preferred amount. If you wish to add another 5%, the following measurements apply:

- 2.5L tin - add 125ml of water
- 750ml tin - add 38ml of water

Add water into the paint, stir thoroughly to ensure complete mixing. Use a medium pile roller, apply no more than 150 μ in one coat to get the best results.

Increase the Wet Film (WFT) loading required for the fire protection by the amount the paint was diluted, for example, if the fire protection loading was 370 μ and the paint was diluted by 5%, the loading that now needs to be applied is ~390 μ WFT. Alternatively, to ensure the correct loading has been applied simply apply all of the paint specified to coat a given area regardless of how much it was diluted. Remove excess paint from the brush or roller on the rim of the paint pot and then wash brush/roller with water.

Spray

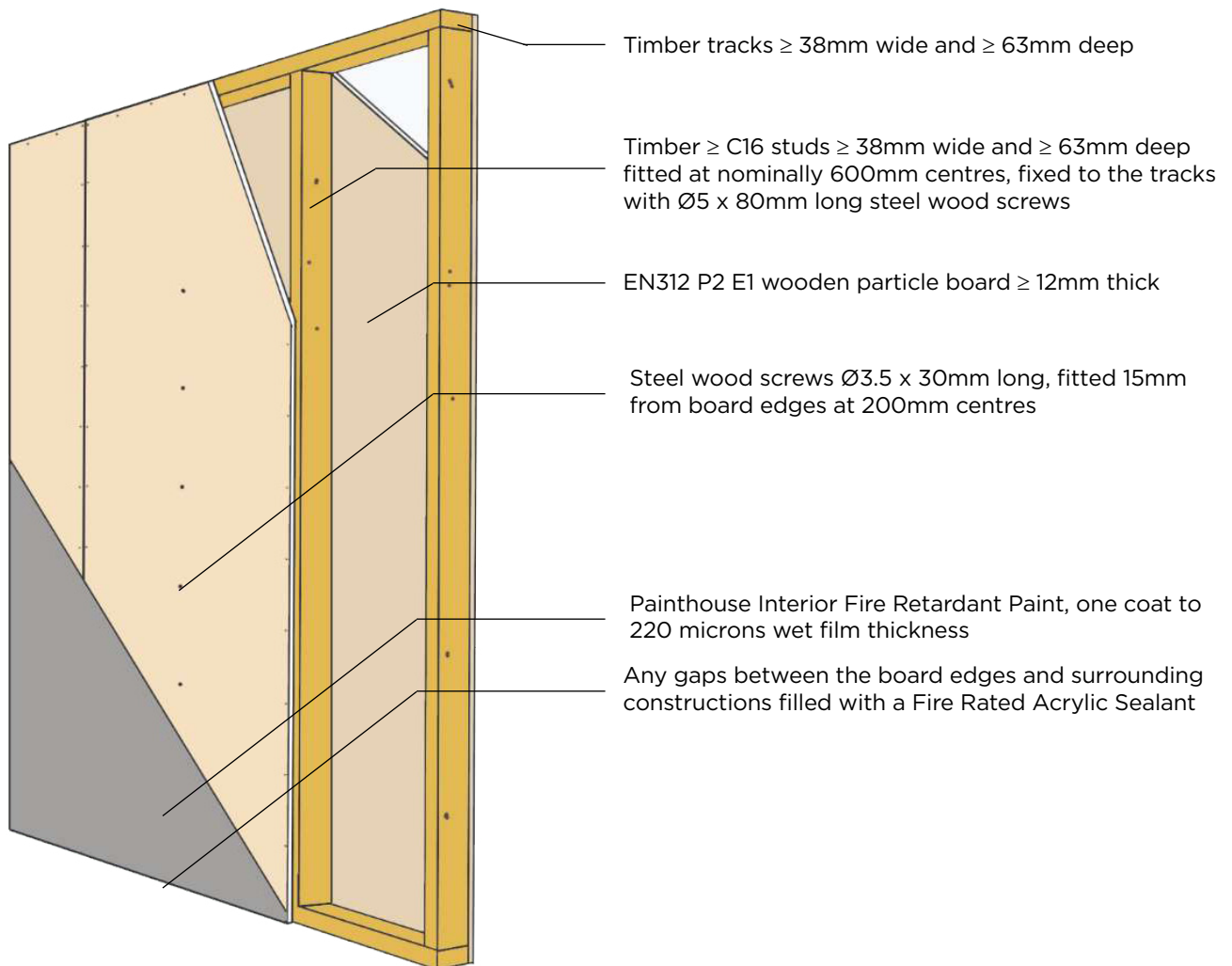
The paint can be applied in one coat using spray equipment, for example, the Graco X-Force Spray Gun with a tip size 17-21thou. The paint can also be diluted for spraying, however, the fire protection loading would need to be adjusted as described above.

Film thickness table (for fire resistance)

Description	m ² per litre paint	Fire classification
Between 220 μ and 370 μ WFT on any wood based substrate with a thickness of at least 10mm and a density greater than 510kg/m ³	2.7 - 4.5	B-s1,d0
280 μ WFT as topcoat on existing water based paint on any wood based substrate with a thickness of at least 10mm and a density greater than 510kg/m ³	3.5	
280 μ WFT as topcoat on existing solvent based paint on any wood based substrate with a thickness of at least 10mm and a density greater than 510kg/m ³	3.5	B-s2,d0
220 μ WFT on wooden particle board classified according to EN 312 P2 E1 in one layer with a thickness of at least 12mm	4.5	K1 K2 10 B-s1,d0
Please refer to page 3 - drawing for EI 30 Classification for further details.	4.5	EI 30

The wood based substrate can be installed with a ventilated or a non-ventilated air gap behind, as well as without air gap. 1000 μ = 1.0mm, WFT = Wet Film.

Detail Drawing for EI 30 Classification



Primers

Painthouse Fire Retardant Paint can usually be applied without a primer. A primer such as Zinsser Bulls Eye 123 can be used to improve the adhesion to previously painted surfaces, including gloss paints.

Knots and stains should be sealed before applying Painthouse colours. The following list of primers can be used to seal knots and stop staining in order of effectiveness of the stain blocker:

1. Zinsser BIN
2. Ronseal Knotblock
3. Zinsser Bulls Eye 123
4. Colron Knotting Solution

Emission data (indoor air quality)

Compound	Emission rate after 3 days	Emission rate after 4 weeks
TVOC	0.22 mg/m ³	< 0.005 mg/m ³
TSVOC	< 0.005 mg/m ³	< 0.005 mg/m ³
R-value (dimensionless)	0.38	0
Sum w/o NIK	< 0.005 mg/m ³	< 0.005 mg/m ³
Formaldehyde	< 0.003 mg/m ³	< 0.003 mg/m ³
Total carcinogens	< 0.001 mg/m ³	< 0.001 mg/m ³
Acetaldehyde	0.003 mg/m ³	< 0.003 mg/m ³
Propionaldehyde	< 0.003 mg/m ³	< 0.003 mg/m ³
Butyraldehyde	< 0.003 mg/m ³	< 0.003 mg/m ³

Regulation or Protocol	Conclusion
French VOC Regulation	A+
French CMR components	Pass
AgBB	Pass
Belgian Regulation	Pass
Indoor Air Comfort®	Pass
Indoor Air Comfort GOLD®	Pass
EN 717-1§	E1
BREEAM International	Compliant
BREEAM-NOR	Pass
LEED v4 (outside U.S.)	Compliant

Tested by Eurofins Product Testing; reports available upon request.

Health and safety

Keep container tightly closed when not in use. Avoid contact with eyes and skin. In case of contact with eyes, rinse immediately with water and seek medical advice. After contact with skin wash immediately with plenty of soap and water. Do not empty into drains or watercourses. Dispose of contents and container in accordance with local, regional, national or international regulations. Contact the local Environmental Department for further instructions on waste disposal. Keep out of reach of children. Contains 1,2- Benzisothiazolin-3-one.

Detailed information can be found in the relevant [Safety Data Sheet](#).

Technical data

Type	Acrylic based intumescent paint
Cure system	Water loss
Health and safety	Non-hazardous
Tests standards	EN 13823 and EN ISO 11925
Classification standards	EN 13501-1 and Regulation (EU) 2016/364
Specific gravity	1.40g/cm ³
Solids (theoretical)	70%
Volatile Organic Compound (VOC)	0.0001 g/L
Touch dry	1 hour at -22°C & 50% RH *
Hard dry	1.5 hour at -22°C & 50% RH *
Application conditions	Minimum +10°C and humidity lower than 80%
Temperature range	-30°C to +80°C (when hardened)
Durability	Type Z ₂ internal conditions with humidity lower than 85% R.H, excluding temperatures below 0°C
Colours	29
Finish	Matt 2.5 (units measured at 60°)
Number of coats	2 coats required for fire protection
Coverage	6.4m ² /L per coat
Shelf life	Up to 6 months when stored in a cool, dry and well ventilated area (20 and 25 degrees °C)
Work life	12 years

* Drying times are dependent on temperature, relative humidity & film thickness.

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