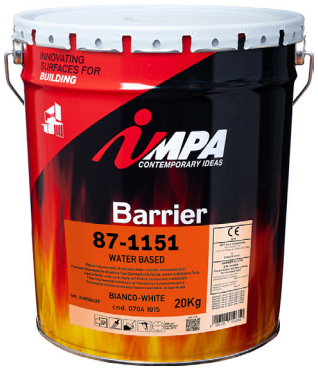
0704 BARRIER 87-1151

WATER-BASED INTUMESCENT PAINT



EUROPEAN CERTIFICATE
EN 13501 - 13381
STEEL - CONCRETE MASONRY

Advantages

→ Certified product
→ Fire barrier and protection

Description and Use

Intumescent paint for fire protection of metal structures and panels, concrete columns and structures, concrete floors, brick walls, etc. In addition, the special components of this product make it possible to generate a heat-insulating, non-combustible foam at temperatures above + 200°C. The time during which the product provides protection against fire is indicated in minutes and represents the “class” of the product.
This class varies according to the type of substrate and the thickness of BARRIER applied.
It is suitable for the protection of structures placed indoors or not directly exposed to rainwater washout or high humidity, such as iron or masonry industrial buildings, warehouses, storage facilities, canopies, cinemas, theatres, schools, hospitals, airports and underground railways.

Substrate preparation

BARRIER can be applied directly to the substrates being protected, as long as these are clean, dry, free of dust and grease and possibly roughened by sanding or sandblasting.
On iron substrates, however, a coat of F.D. UNDERCOAT quick-drying rust protector P/N 1859, KORINTHOS PRIMER P/N 0717 or EPOX CORROSION PROTECTION UNDERCOAT P/N 1293 needs to be applied beforehand.
On galvanised structures, use our product KORINTHOS PRIMER or EPOX CORROSION PROTECTION UNDERCOAT as an adhesion primer.
On crumbling or uncured concrete, the surface must be applied with a primer and insulated using a coat of transparent CLIM-O-PAINT PRO P/N 1004, POLY ACRYL water-based primer P/N 0004, or SUPERFIX P/N 0010.

IMPA S.p.A Unipersonale Via Crevada, 9/E 31020 San Pietro di Feletto (TV), Italy Tel. +39 0438 4548 Fax +39 0438 454915
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Application

Application method:
- airless
- roller
- brush

Product preparation:
Mix to achieve even colour and consistency.

Dilution:
BARRIER is ready-to-use and must be applied as-is, in order to form a sufficiently thick layer with the least possible number of applications. If necessary and depending on the type of application, it can be diluted with 5-10% water.

Airless:
the use of piston pumps with electric (250 bars) or pneumatic systems (minimum ratio 30:1) is recommended. Material delivery hose 3/8". Use the rigid suction pipe and where possible remove the filters placed inside the machine. The pump flow-rate must be at least 4 l/min. Use high-pressure guns (remove the filter in the grip) and nozzle with the smallest dimensions - 25 (0.025 inches - 0.64 mm), self-cleaning type and without diffuser. Use a spray angle according to the type of structure being treated (20° or 40°).
If using airless diaphragm pumps, it is recommended to contact the equipment manufacturer to verify compatibility with intumescent products.

Recommended thicknesses:
The thickness varies according to the required degree of protection (class) to be obtained. These thicknesses and corresponding protections, which differ according to the substrate (iron and concrete), are specified on the test certificates. The thicknesses indicated must be scrupulously adhered to; in corners, excess product could lead to the formation of cracks during drying. Apply the product in several subsequent coats. Do not apply more than 700-800 µm wet product per layer. The application of 800 µm wet corresponds to 550 µm dry = 1 kg/m² and can be performed with a single coat of product using an airless pump.

STORAGE AND APPLICATION PRECAUTIONS
1) During storage
Given the product's particular thixotropic characteristics, thickening may occur after extended storage. In this case, mechanical stirring is required, using a drill equipped with a suitable stirrer.
PROTECT FROM FROST. Avoid temperatures below + 5°C, as it will be difficult to recover the frozen product. Avoid long-term exposure to temperatures above + 35°C.
2) During application
If BARRIER is applied over several days outdoors, the product must be protected against rain and overnight dew until it has been painted over with waterproof enamels. These precautions are not required if the product is used indoors and in dry environments (e.g. cinemas, theatres, schools, shopping centres, supermarkets, etc.)
3) After application
Avoid washing away by rain, which, due to the porosity of the BARRIER, will reach the substrate, causing detachment bubbles and then dissolving and removing the active components, making the product completely ineffective against fire.
Even very high humidity or water vapour causes serious problems over time (e.g. shower rooms, laundries, damp cellars) as the humid salts partially dissolve and come to the surface, creating a crust on the surface after a certain time. In these cases, BARRIER must always be protected with a layer of waterproof enamel.
The minimum necessary layer of protective enamel must be applied, as excessively thick layers could hinder the free expansion of the foam in the event of a fire.
At the end of the cycle, BARRIER is no longer sensitive to even rapid temperature changes; its characteristics as an intumescent paint do not decline over time, as long as none of the factors described above come into play and the product has been applied following the instructions.

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Certifications and Regulations

CERTIFICATES ISSUED BY AFITI LICOF (SPAIN) AND ISTITUTO GIORDANO (ITALY)

STEEL STRUCTURES technical report CLASS R 15 - 30 - 45 - 60 - 90 - 120
(Technical report no. 2125T10-4 of 27/07/2011) issued by Afiti Licof in accordance with European Standard EN 13381-8:2010.

CLOSED STEEL PROFILES technical report CLASS R 15 - 30 - 45 - 60 - 90 - 120
(Technical report no. 2636T13-2 of 27/07/2011) issued by Afiti Licof in accordance with European Standard EN 13381-8:2011.

WALLS AND INTERMEDIATE FLOORS technical report CLASS R 30 - 60 - 90 - 120
(Technical report no. 8689/12-2 of 09/10/2012) issued by Afiti Licof in accordance with European Standard UNE-ENV 13381-3:2004.

BEAMS AND COLUMNS technical report CLASS R 30 - 60 - 90 - 120
(Technical report no. 8689/12-3 of 09/10/2012) issued by Afiti Licof in accordance with European Standard UNE-ENV 13381-3:2004.

STEEL AND CONCRETE STRUCTURES technical report, corrugated sheet metal with concrete CLASS 60 - 90
(Technical report no. 8866/13-2 of 09/10/2013) issued by Afiti Licof in accordance with European Standard UNE-EV 13381-5:2005.

NON-LOAD BEARING PLASTERED BRICK WALLS, classification report EI 90
(Classification report no. 318126/3673FR of 06/08/2014) issued by Istituto Giordano in accordance with European Standard EN 13501-2:2009.

NON-LOAD BEARING NON-PLASTERED CEMENT BRICK WALLS classification report EI 120
(Classification report no. 322569/3710FR of 23/02/2015) issued by Istituto Giordano in accordance with European Standard EN 13501-2:2009.

PLASTERED BRICK-CONCRETE INTERMEDIATE FLOOR classification report REI 120
(Classification report no. 324430/3720FR of 11/05/2015) issued by Istituto Giordano in accordance with European Standard EN 13501-2:2009.

CONSTRUCTION PRODUCTS AND ELEMENTS reaction to fire class B-s1, d0
(Classification report no. 324280 of 30/04/2015) issued by Istituto Giordano in accordance with European Standard EN 13501-1:2009.

Additional reports are available, by agreement, drafted by a professional registered in the Italian Interior Ministry lists pursuant to law 818-84.

In compliance with Directive 89/106/EEC on construction products, BARRIER 87-1151 comes with EUROPEAN TECHNICAL APPROVAL, affixed with the CE MARK, being deemed to comply with the requirements of the EAD 350402-00-1106 Guidelines.

Storage life

PROTECT FROM FROST. Store the packaged product at a temperature between +5°C and +35°C.
If stored in a cool, dry place, away from sources of heat and sheltered from sunlight, in its sealed original packaging, the product has a shelf life of 12 months. Check the product's shelf life by referring to the production batch number shown on the packaging. The batch number is made of eight numeric characters in which the first four digits identify the year and month of production. Once the product has expired, it must be disposed of in accordance with current legislation.

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Technical features

Colour	white *
Appearance of the dry film	matt
Total non-volatile by weight	66% (± 1)
Specific weight (20° C)	1.29 kg/l (± 0.04)
Viscosity (20°C)	4800-6400 mPa.s Brookfield
Indicative yield	According to the required protection class to be obtained
EU limit values for VOC content (Directive 2004/42/EC)	Cat. A/i, WB: VOC max 140 g/l product VOC < 140 g/l
Air drying	Depending on the thickness applied At a temperature of 25°C, in a ventilated place, a 600 µm wet layer can be painted over after a few hours and will be completely dry after about 24 hours
Recommended thicknesses	The thickness varies according to the required degree of protection (class) to be obtained
* For technical reasons BARRIER 87-1151 mustn't be colored. It have to be overpainted following the indications in the preventive technical report provided by Technical Assistance.	

Warnings

- For professional use only.
- Always read the safety datasheet before use.
- Tool wash water and any product residues must not be released into the environment or discharged into the domestic sewage system. The recipient/product/wash water must be disposed of in accordance with national laws.
- It is recommended to acquire all the material required to finish the work of the same batch.
- The information provided on this technical datasheet is based on our technical and practical knowledge and experience. The technical data refer to the average characteristics of the basic product and are determined under controlled laboratory conditions. The variability of the raw materials available on the market and the tinting of the product can lead to slight deviations in the declared values, in the colour and in the aesthetic effects obtained. It is therefore necessary for the purchaser/user to personally verify, before application, the suitability of the product for the intended use, in particular when different batch numbers of the same material are used in the same work/site.

PROTECT FROM FROST. Avoid temperatures below + 5°C, as it will be difficult to recover the frozen product. Avoid long-term exposure to temperatures above + 35°C.

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