

## AMOTHERM<sup>®</sup> STEEL SB

Fire-protection system for steel

Rev. December 2019

### Intumescent coating

**Description:** single-component intumescent coating based on acrylic polymers in a solvent solution and specific reactive substances which, when exposed to the action of flames or the heat of a fire, generate a foam with heat-insulating properties.

**Applications:** special fire-protection system for structural steelwork in civil and industrial buildings.

**Technical performance:** intumescent fire-proofing system certified according to European standard EN 13381-4/8, whose contribution to fire resistance is up to 120' (performance tested in relation to the type of structure treated). CE-marked product in accordance with the procedures set out in the ETAG 018 framework guidelines.

### Technical data

|                        |  |
|------------------------|--|
| Components:            | Single component   |
| Colour:                | White  |
| Mass by volume:        | 1200-1300 g/l  |
| Viscosity:             | Thixotropic  |
| Dry residue in weight: | 70 - 76%   |
| Dry residue in volume: | 65 – 71%   |
| Recoatable:            | 6-8 hours with same product  |
| Over-painting:         | 2-3 days from the last coat with topcoat                                   |
| Storage:               | at least 1 year in the original closed container at a temperature of >5 °C |
| Packaging:             | as per price list  |

*The product application details were obtained in normal environmental conditions (temperature 20 °C and relative humidity 60%) and refer to the application of a wet film with a thickness of 1000 micron. Application of different thicknesses and/or different environmental conditions may lead to considerable variations in the information given above.*

### How to apply

Detailed information about the use of AMOTHERM STEEL SB at all operative stages in the life cycle of the product, can be found on the Safety Information Sheet. Further information and instructions for applying the protective system can be found in the USER MANUAL. The technical documentation is available on the company website and can be downloaded at [www.amonncolor.com](http://www.amonncolor.com).

A summary of the standard operating conditions for the correct application of this intumescent coating is given below.

#### Surface preparation:

- **New surfaces:** sandblast to grade SA 2<sup>1/2</sup> and treat with a compatible primer.
- Surfaces previously treated with a compatible primer (alkyd, epoxy, zinc silicate and zinc-rich epoxy): remove all traces of dirt, oil or grease. Check the state of the primer and the over-painting times of the product on the substrate.
- Surfaces previously treated with an unknown product: we recommend sandblasting and/or mechanically brushing and/or sanding, followed by thorough cleaning of the surface and treatment with a compatible primer. We suggest contacting our Technical Department for advice before beginning any work.

The AMOTHERM STEEL PRIMER range has a variety of technical solutions which are illustrated in the table verifying and showing compatibility in each product USER MANUAL.

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**Application quantity:** the amount of intumescent coating to apply depends on the structural element to be protected and the technical performance required. Calculations of consumption rates can be requested with no obligation by writing to our Technical Department at [ingass@amonncolor.com](mailto:ingass@amonncolor.com).

**Product preparation:** mix the product well before use.

**Dilution:** the product is ready to use; if necessary, dilute with a maximum of 5% STUFEX 001 thinner or equivalent. Do NOT exceed the recommended amounts.

**Application:** by airless spray, roller or brush.

Use an airless pump for spray application:

- Pneumatic pump with a minimum compression ratio of 30:1
- Electric pump with motor power of at least 1.9 KW
- minimum pressure 160 bar, nozzle 0021"-0031", self-cleaning type, return hose 3/8", removing any filters (maximum quantity that can be applied in one coat: 1100 - 1250 g/m<sup>2</sup> of product corresponds to a WFT of 900-1000 micron).

As a general rule, approx. 400 g/m<sup>2</sup> of product can be applied in a single coat with a roller or brush.

We recommend working in an ambient temperature of between 3 and 40 °C with relative humidity below 60%. Do not apply if it is raining, windy or if there is mist, high humidity or in direct sunlight. Check there is sufficient ventilation to ensure the film applied is able to dry out thoroughly.

Only apply when the temperature of the surface is at least 3 °C above the dew point and/or when it is below 35 °C.

**Tool cleaning:** with Stufex 003 thinner or equivalent immediately after use.

**Protective system:** before applying the products, close all openings in the structures to keep the risk of the protective system being exposed to the elements to a minimum during application.

Make sure that the entire paint cycle is applied in favourable environmental conditions and that the various coats are not directly exposed to rain, mist or high humidity immediately after application.

No protective topcoat is needed when the system is applied indoors (type Z<sub>2</sub> and Z<sub>1</sub>) and in semi-exposed environments (type Y).

When a coloured finish is required, we recommend applying a layer of AMOTHERM STEEL TOP SB topcoat.

When the protective system is applied in environments subject to deterioration of a physical nature or where there are chemical pollutants, we recommend using a special protective polyurethane topcoat (such as AMOTHERM STEEL TOP PU SB). It is important to monitor the condition of the finish of these particular applications and, should it deteriorate, promptly restore protection.

We do not recommend using very thick surface finishing treatments which could interfere with the fire-expansion characteristics of the material or applying panels, slabs or other glued coverings which, in the case of fire, could jeopardise the underlying intumescent coating from generating the protective foam.

**The instructions provided in this document are consistent with the most recently available information on the development and use of our product. Because we have no control over the onsite use and application of the product, we may only be held liable for the quality of the product as supplied.**