



## **EBS Euro Blaze Stop**

*Innovative Fire-Retardant  
Clear Wood Coating system*



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**EBS is a FIRE-RETARDANT CLEAR WOOD COATING SYSTEM that meets EUROCLASS Bs2d0 according to EN 13501 standard. It's a high solid solvent-based paint developed on advanced 2K alkyd polyurethane chemistry.**

**It also works on NON-FIRE RATED BOARD according to EN 13238:2010 which means that, unlike most of the competing FR paints on the market that are only suitable for fire rated boards, our product is suitable for most of wooden boards in Class D (combustible material) such as solid wood, MDF or veneer. EBS only requires a very small amount of product per square meter ( $\text{gr}/\text{m}^2$ ), which means great cost savings.**

### **GENERAL NOTIONS**

In some places (usually public buildings such as schools, hospitals, gyms, cinemas, theatres, nightclubs, airports, banks and tourist facilities including hotels, fitness centers, exhibition centers, libraries, etc.) the layering of wooden wall elements and/or furniture must have self-extinguishing properties to stop the combustion once the trigger is removed.

The aim is to delay the start of the fire, as every minute of delay in the spread of the flames can be crucial to saving lives. The purpose of our EBS (Euro Blaze Stop) series is to counteract the spread of fire by slowing it down, in accordance with the European standard EN 13501.

### **HOW DOES "EBS" WORK DURING A FIRE?**

In the event of a fire, the paint swells to form a durable and protective layer of foam, creating an insulating effect that prevents the release of flammable gases from the wood.

As the fire continues, the upper part of the wood substrate turns to charcoal without igniting.

As a result, wood treated with **EBS** can also protect underlying materials from fire.

### **MAIN FEATURES OF EBS**

- Suitable for Class D rated boards (NON-FIRE RATED BOARDS)
- Minimal amount of paint required per square meter
- High elasticity
- Available in a range of gloss levels
- Suitable for vertical and horizontal applications
- Easy to use
- High solids content
- Non-yellowing properties
- Excellent transparency
- Excellent adhesion to wood substrates
- Anti-scratch & excellent mar resistance
- Not suitable for flooring



## WHY CHOOSING EBS FIRE RETARDING COATINGS?

The main reason for choosing our FR coating is simply because it offers a **superior appearance** compared to other FR wood coating available on the market.

Our laboratories have developed a '**no compromise**' product where quality and FR protection are at the forefront.

Unfortunately, most of our competitors' products on the market give a plastic, milky look to the final film of paint, leaving the wood furniture with an unattractive result that is inferior in quality to standard PU coating.

This is not the case with EBS, which gives a superior finish and is available in matt, semi-matt, and high gloss finishes.

Another important reason for choosing EBS is that our product requires a very minimal amount of paint per square meter to achieve **EUROCLASS Bs2d0** of the EN 13501 standard on non-fire-resistant wood panels, almost certainly the lowest on the market: this is a great saving in labor and product costs.

With **EBS Fire Coating** users get the same final quality of the job that only the best Italian PU clearcoat can give.





## CLARIFICATION TABLE OF THE PROPERTIES OF EBS BY THE EN13501-1

CLASSIFICATION ACHIEVED: **B s2 d0**

<b>REACTION TO FIRE</b> <b>B / C / D</b>	<b>SMOKE</b> <b>s 1 / 2 / 3</b>	<b>FLAMING DROPLETS</b> <b>d 0 / 1 / 2</b>
<p><b>MEANING</b></p> <p><u>Ignitability</u>: how quickly it catches fire</p> <p><u>Spread of flame</u>: how quickly flames spread across the material</p> <p><u>Heat release</u>: how much heat energy is generated, which will impact the spread of fire</p> <p><b>NOTES</b>            Class A cannot be achieved with wood.</p> <p>Wood products can achieve class B or C (where B is better than C) and most of the wood products are classified as D with no Fire Retardant improvement.</p>	<p><b>MEANING</b></p> <p>This is about the amount of smoke produced by the burning material, <b>s2</b> indicates that reduced smoke is generated, with the scale of evaluation going up to s3 where there is a more significant amount of smoke generated.</p>	<p><b>MEANING</b></p> <p>It's related to the burning particles that can fall away from the surface of a flaming material, spreading the fire beyond</p> <p><b>d0</b> specifies that the coated panel produces no flaming droplets</p> <p><b>d2</b> implies a more significant number of flaming droplets.</p> <p>Uncoated wood substrates are always supposed to achieve d0.</p>
<p><b>EBS = B</b></p>	<p><b>EBS = s 2</b></p>	<p><b>EBS = d 0</b></p>



## FIRE RATED CLEAR PAINTING CYCLE

QUANTITY OF PAINT TO APPLY PER SQUAREMETER, TO ACHIEVE THE EUROCLASS Bs2d0 BY EN 13501

Case A) → maintenance of the already existing FR-rated board by EN 13238:2010

The minimum quantity of mixture to be applied is intended as EBS BASE CLEAR + hardener EBS B-2019 N.I. (curing ratio: 100% by weight) is **120 gr/m<sup>2</sup>** of the wet film (corresponding to 100 μm of the dry film), while for the finishing coat EBS TOP CLEAR + hardener EBS B-2019 N.I. (curing ratio: 100% by weight) the quantity is **80 gr/m<sup>2</sup>** of the wet film, applied in a single coat (corresponding to 65 μm of the dry film).

So, the total quantity for case A):

**200 gr/m<sup>2</sup>** (total wet paint) to achieve Bs2d0 class.

Case B) → improvement to Bs2d0 class of a non-fireproof rated wooden board by EN 13238:2010

In this case, the minimum quantity of mixture to be applied, meant as EBS BASE CLEAR + hardener EBS B-2019 N.I. (curing ratio: 100% by weight) is **220 gr/m<sup>2</sup>** of wet film in the 2 coats (corresponding to 175 μm of the dry film), while for the finishing top coat EBS TOP CLEAR + hardener EBS B-2019 N.I. (curing ratio: 100% by weight) is **80 gr/m<sup>2</sup>** of the wet film, applied in a single coat (corresponding to 65 μm of the dry film).

So, the total quantity for case B):

**300 gr/m<sup>2</sup>** (total wet paint) to achieve Bs2d0 class.





### **FIRE RATED PIGMENTED PAINTING CYCLE**

#### **QUANTITY OF PAINT TO APPLY PER SQUAREMETER, TO ACHIEVE THE EUROCLASS Bs2d0 BY EN 13501**

The minimum quantity of mixture to be applied of **EBS BASE WHITE** + hardener EBS B-2019 N.I. (catalyst ratio: 50% by weight) is 300 g/m<sup>2</sup> of wet film (corresponding to 210 µm of dry film), while for the finishing coat **EBS TOP G-xx CONVERTER** (which must be pigmented with 20% KROMAPAST to obtain the desired color and then cured by EBS B-7250 PLUS hardener (cross-linking ratio: 50% by weight) the quantity is 120 g/m<sup>2</sup> of wet film, applied in a single coat (corresponding to 90 µm of dry film).

**So, the total quantity (total wet paint) to achieve Bs2d0 class: 420 gr/m<sup>2</sup> (total wet paint, base + topcoat)**





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