Date: 23.06.2025
Revision: 02

EGGER OSB Flammex - Frequently Asked Questions

1. What exactly is OSB Flammex?

The OSB Flammex is an OSB/3 panel treated with a surface applied flame-retardant fire protection coating.

2. In which building material class is EGGER OSB Flammex classified?

EGGER OSB Flammex is classified as B-s1, d0 – hardly flammable - according to EN 13501-1.

3. What are building material classes?

Building materials are classified according to European Standards based on their combustibility and flammability. EN 13501, is the standard for the classification of construction products and building elements based on their reaction to fire. The term *fire protection class* is often used instead of *building material class*.

4. How do the building material classes differ?

The assessment standard for the fire behaviour of building products is defined by a classification system according to European Standards introduced in 2010. The EN 13501 series of standards sets minimum fire performance requirements for construction products and building elements and construction types.

Materials are classified into building material classes (Euroclasses) from A to F based on their fire performance Classification codes:

A – Non-combustible, no contribution to fire

B – Hardly flammable, very limited contribution to fire

C – Hardly flammable, limited contribution to fire

D – Normally flammable, acceptable contribution to fire

E – Normally flammable, acceptable fire behaviour

F – Easily flammable, no performance determined

Building materials are generally categorized as: non-combustible, hardly flammable, normally flammable and easily flammable:

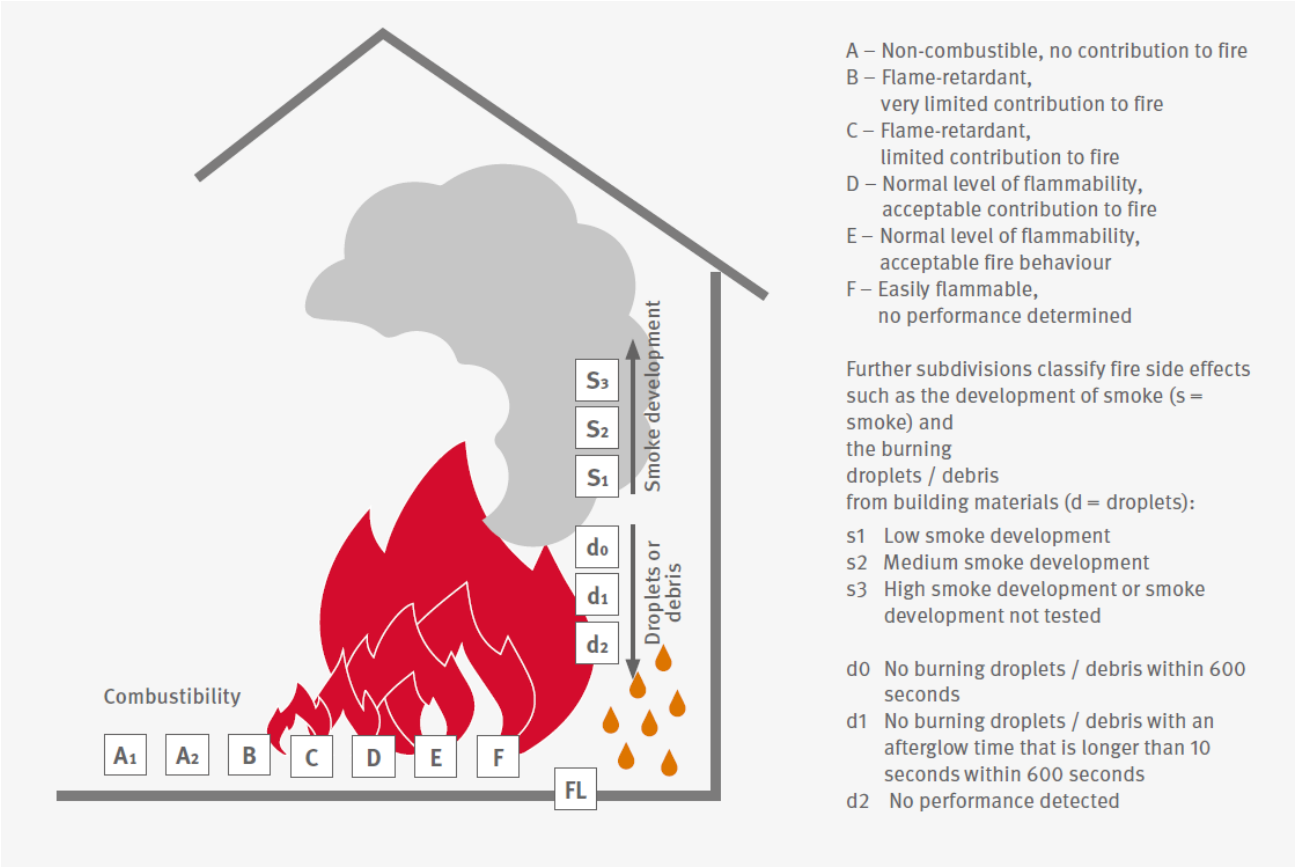


Image 1: Building material classification according to EN 13501-1

5. What tests are used to classify the building material classes?

The SBI test (SBI = "Single Burning Item") is a test method for determining the fire behaviour of building products when subjected to thermal stress by a single burning item(excluding floor coverings). The course of the fire is recorded metrologically over a period of 20 minutes, allowing heat release and smoke development rates to be calculated. Fire side effects, such as burning droplets/debris, are visually recorded. The test results can be used within a building material classification in accordance with EN 13501-1.



Image 2: SBI-Test

6. How does OSB Flammex react in the event of a fire?

Under the influence of heat (approx. 250 °C), the intumescent agent contained in the coating initiates a multi-stage chemical reaction (known as the intumescent reaction). During this process, carbon foam is formed. This foam acts as an insulator for the underlying OSB carrier board. Due to this insulating layer, less heat reaches the surface of the carrier material for a certain period. This delays the fire progression and slows down the overall flame spread.

7. What is the Flammex coating made of and what does intumescence mean?

The Flammex coating is a mixture of various components. The coating consists of water, melamine, urea resin, various additives, and the intumescent agent. In preventive fire protection, intumescence means the deliberate increase in volume of a building material when exposed to heat. The objective is to form an insulating layer as a heat barrier.

8. Can the flame-retardant effect of OSB Flammex be accidentally triggered?

The foaming effect of the intumescent material is activated at approximately 250°C. While the chemical reaction can theoretically be triggered with sufficient heat exposure, in practice, the product is not expected to encounter such high temperatures under normal conditions

9. What impact does Egger OSB Flammex have on a construction with REI30/60/90?

REI30 is a fire safety rating for building materials like doors and walls, indicating they can resist fire for 30 minutes. This means they can hold up under fire, stop flames and heat from passing through, and keep the area safe for a short time. It's important for protecting people and property during a fire.

REI60 and REI90 are similar fire safety ratings, indicating that building materials can resist fire for 60 and 90 minutes, respectively, providing even more time for safe evacuation and reducing the risk of fire spreading

A wall design is influenced by a variety of factors - it can be dictated by but not limited to; the type of building, its users, if it is an internal or external wall, and by its proximity to other buildings. Walls therefore can be designed with a wide range of building products, thicknesses, and in various configurations.

To help designers, a wall design (and all its components) is fire tested, and this provides a corresponding REI rating. Various wall constructions are currently being tested and will be made available soon.

10. Which type of OSB is the substrate material??

EGGER OSB/3 according to EN300. All technical properties are the same.

11. What should be considered regarding the acclimatisation of the panels, water, and moisture protection?

OSB Flammex must be protected against direct weathering and water during transport, installation, and in construction, protected the building are watertight. UV radiation can cause discoloration and cracking without affecting functionality. Before installation, the panels should be acclimatised on-site for at least 48 hours to achieve moisture balance appropriate for the installation environment. During storage on-site and installation, the panels must be protected against direct exposure to water. It is mandatory to cover exterior walls, the roof, or other exposed components immediately after their installation with protective insulation (tarps, films). To avoid damage to components made from OSB panels, excessive moisture increases due to the installation of wet materials, non-dried components, insulation errors, insufficient protection against atmospheric conditions, etc., should be excluded.

12. Is the surface protected against moisture?

OSB Flammex must be protected against direct weathering and water during transport, installation, and in construction, protected the building are watertight. UV radiation can cause discoloration and cracking without affecting functionality.

13. What should be considered during the installation of EGGER OSB Flammex panels?

The panels can be installed using our official guidance, known methods, standard tools, and fastening materials (wood screws, staples, etc.).

14. What protective equipment should be worn during processing?

Wear appropriate protective equipment such as safety goggles, dust masks, and gloves.

15. Do OSB Flammex products have a limited lifespan?

No. Additive contained in the fire protection coating preserve it throughout its lifetime. This is essential because our products are often installed for several decades and must always maintain their fire protection effect. In addition, the coating has no influence on the OSB and therefore also not on its service life.

16. Do toxic substances or similar escape in the event of a fire?

In the event of a fire, typical fire gases escape. The Flammex coating does not release any additional toxic gases. The product is manufactured without the addition of: organohalogen compounds, heavy metals, preservatives, wood preservatives, and organic solvents.

17. Is it possible to paint, decorate, or wallpaper the surface while maintaining fire protection?

A classification in accordance with EN 13501 classifies the fire behaviour of the coating material of a certain manufacturer on its systems. The classification is therefore specific to the manufacturer and not transferable to other manufacturers. Fundamental changes to the material or installation system require reclassification. It is not possible to apply a commercially available water-based emulsion interior paint, wallpaper or other coating materials. This also includes laminates or other coating materials that must be applied using a hot press. These are not approved and therefore cannot be applied to OSB Flammex.

When processing OSB Flammex, the processing instructions must always be observed.

18. Are Flammex products processed differently than standard products?

In principle, the instructions from the installation guide must be observed when installing OSB Flammex.

19. How can Flammex products be disposed of?

OSB Flammex products can be disposed of in the same way as the non-fire-retardant OSB boards and can boards fed into the recycling process.

20. What are the different types of fire protection?

Fire protection in general is divided into preventive and defensive fire protection. Preventive fire protection includes all measures that prevent the outbreak, spread, or effects of fires or effectively limit them. Preventive fire protection is further subdivided into structural, technical (systems-related), and organisational fire protection. Fire prevention includes all passive and active measures taken by fire departments and other emergency services before and during a fire in order to reduce direct and indirect damage (e.g. from extinguishing water, toxic gases in the environment). This fire protection and the tasks of the fire department do not relate to building law and are regulated in the fire department laws of the federal states.

21. What are the main objectives of fire protection planning?

Prevention of fire outbreaks and the spread of fire and smoke

Enabling effective firefighting operations in the event of a fire

Protection of the health and lives of occupants and emergency personnel by providing adequately protected escape routes

Protection of the building structure, contents, and operational capability

Protection of the environment from toxic fire and reaction gases

22. Is a loss of function to be expected in the event of damage?

When installing the OSB Flammex using the approved fasteners, the OSB Flammex coating may come off. Defects around the fasteners up to a maximum size of 3 mm do not impair the functioning of the OSB Flammex. If major damage should occur, the defects must be repaired using an intumescent flame-retardant coating available on the market.

For this purpose, we recommend the product Pyrolan Expand Base L in combination with Pyrolan Expand Top from Adler-Werk Lackfabrik Johann Berghofer GmbH & Co KG.

23. Can airtightness tape stick to it? Does it affect the coating?

For airtight sealing, we recommend the products listed in our brochure “Products and Solutions in Timber Construction”.

24. How airtight is OSB Flammex?

The air permeability is identical to that of a standard EGGER OSB/3

25. When installed in 90-degree corners, it will have an exposed edge. Will this still work? What will be the installation requirements in these situations?

A solution is being worked on. At this stage, we recommend the use of flame retardant coatings available on the market.

For this purpose, we recommend the product Pyrolan Expand Base L in combination with Pyrolan Expand Top from Adler-Werk Lackfabrik Johann Berghofer GmbH & Co KG.