

# FIRE RETARDANT PAINT SYSTEMS

Teknos FR Facade  
Teknos FR Panel

## NEW OPPORTUNITIES WITH TEKNOS FIRE RETARDANT PAINT SYSTEMS

# TEKNOS FR FAÇADE AND TEKNOS FR PANEL

**Teknos FR Facade** (for exterior and interior opaque woodwork) and **Teknos FR Panel** (for translucent and opaque non-weathered woodwork), are fire retardant paint systems.

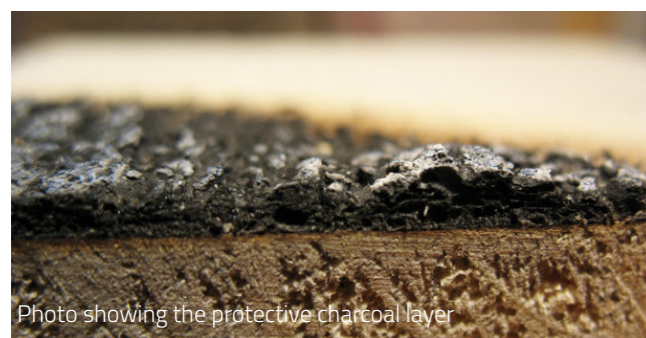


Photo showing the protective charcoal layer

### What happens during a fire?

In the event of a fire, the paint swells to form a durable, protective foam layer, creating an insulating effect which prevents flammable gasses from being released from the wood.

If the fire lasts, the upper part of the wood substrate turns to charcoal, but without igniting. As a result, wood treated with TEKNOSAFE is also able to protect underlying materials from fire and is approved for  $k_1$  10 and  $k_2$  10.

## FR PANEL: INDUSTRIAL PAINT SYSTEM FOR NON-WEATHERED SURFACES

### Opaque Coating System - All Colours

Layer	Product	Applied
1	TEKNOSAFE FLAME GUARD 2457-10 fire retardant paint	Factory
2	TEKNOCOAT AQUA 1864-62 or UVILUX 651-14120	Factory

**B-s1,d0 Classifications for Teknos FR timber panel and cladding systems** (Service Class DRF INT1 and INT2)

- ≥ 250g/m<sup>2</sup> TEKNOSAFE FLAME GUARD 2457-10
- ≥ 250g/m<sup>2</sup> TEKNOSAFE FLAME GUARD 2457-10 with ≤ 50g/m<sup>2</sup> TEKNOCOAT AQUA 1864-62 or ≤ 11g/m<sup>2</sup> UVILUX 651-14120

### Suitable Timbers for FR Panel Coating Systems

These classification reports cover any wood based substrate of Class D-s2,d0 with a density equal to or greater than 338 kg/m<sup>3</sup> and a thickness of at least 8.0mm.

### Fire Resistant Classification for Teknos FR Panel

- B-s1,d0 for surfaces in accordance with EN 13501-1

### Translucent Coating System - All Colours

Layer	Product	Applied
1	TEKNOSAFE FLAME GUARD 2467-10 fire retardant paint	Factory
2	TEKNOSAFE FLAME PROTECT 2468-00	Factory

**B-s1,d0 Classifications for Teknos FR timber panel and cladding systems** (Service Class DRF INT1 and INT2)

- ≥ 200g/m<sup>2</sup> TEKNOSAFE FLAME GUARD 2467-10
- ≥ 200g/m<sup>2</sup> TEKNOSAFE FLAME GUARD 2467-10 with ≤ 80g/m<sup>2</sup> TEKNOSAFE FLAME PROTECT 2468-00



## THE FR COATING PROCESS

- The manufacturer of fire-retardant timber products applies TEKNOSAFE as part of an industrial process. Application is under carefully controlled conditions and at the required amount (see Classification specification).
- The fire retardant paint is dried - conventionally or by forced drying tunnel.
- The intermediate coat or topcoat is applied in a controllable system where the applied amount (see Classification specification) can be measured.
- After final drying the fire protected timber product is checked and labelled prior to dispatch and delivery to the construction site.
- The timber products are installed following the manufacturer's guidelines. Galvanized nails should be used.

To achieve the quality, also in terms of fire-resistance and appearance of the surface treated with TEKNOSAFE, technical guidelines stated in the Technical Datasheets must be followed.

## CERTIFICATION / QUALITY ASSURANCE

For timber products, structural timbers and board materials, the EU has introduced Product Standards, in accordance with which all timber manufacturers have to document their own products before they can be sold within the European market.

Fire-retardant wood based products must, at the manufacturer's site be certified by a "Notified Body" who issues a "Certificate of Constancy of Performance" following a prior inspection of the manufacturer's production facilities and documentation setup. The Product Standard requires that the manufacturer has a quality control system in operation. All products treated with fire-retardant products from Teknos are adapted to the Construction Product Regulation no. 305/2011 and can consequently be CE-marked.

## FR FAÇADE: INDUSTRIAL PAINT SYSTEM FOR EXTERIOR OR INTERIOR SURFACES

### Opaque Coating System

Layer	Product	Applied
1	TEKNOSAFE 2407 fire retardant paint	Factory
2	NORDICA EKO 3330 topcoat	Factory

**B-s1,d0 Classifications for Teknos FR Facade timber systems** (according to EN13501-1)

- 19mm planed face spruce with ≥ 350g/m<sup>2</sup> TEKNOSAFE 2407 and up to ≤ 150g/m<sup>2</sup> NORDICA EKO 3330-03 White
- 19 to 57mm extended application classification on sawn face spruce with ≥ 350g/m<sup>2</sup> TEKNOSAFE 2407 and up to ≤ 150g/m<sup>2</sup> NORDICA EKO 3330-03 White
- 19mm sawn face spruce with TEKNOL AQUA 1410 + ≥ 350g/m<sup>2</sup> TEKNOSAFE 2407 and up to ≤ 150g/m<sup>2</sup> NORDICA EKO 3330-03 White

- Classified EXT for outside use (CEN / TS 15912 / EN 16755)
- Performance requirement according to SP Fire 105

### Fire Resistant Classification for Teknos FR Facade

- B-s1,d0 for surfaces in accordance with EN13501-1
- K1 10 and K2 10 for cladding in accordance with EN13501-2

**TEKNOSAFE 2407 is different from traditional fire impregnated timber. WHY?**

TEKNOSAFE 2407 does not release salts to the surface of the coated timber in the presence of rain and/or high ambient humidity

These systems allow wood to be used on projects where fire safety concerns had previously made this impossible. Teknos FR Facade as well as Teknos FR Panel provide architectural freedom and allow wood to be used in built-up areas and on tall buildings.

## CONTACT US

For further information on systems for Teknos FR Facade or Teknos FR Panel, contact your local Teknos representative or visit [www.teknos.com](http://www.teknos.com)

# WE MAKE THE WORLD LAST LONGER

Teknos is a global coatings company with operations in more than 20 countries in Europe, Asia, and the USA. The company employs approximately 1,800 people, and the net sales for 2020 was EUR 384 million. Teknos is one of the leading suppliers of industrial coatings with a strong position in retail and architectural coatings.

Teknos wants to make the world last longer by providing smart, technically advanced paint and coating solutions to protect and prolong. Teknos always works in close cooperation with its customers. Teknos was established in 1948 and is one of Finland's largest family-owned businesses. For further information, visit [www.teknos.com](http://www.teknos.com).

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