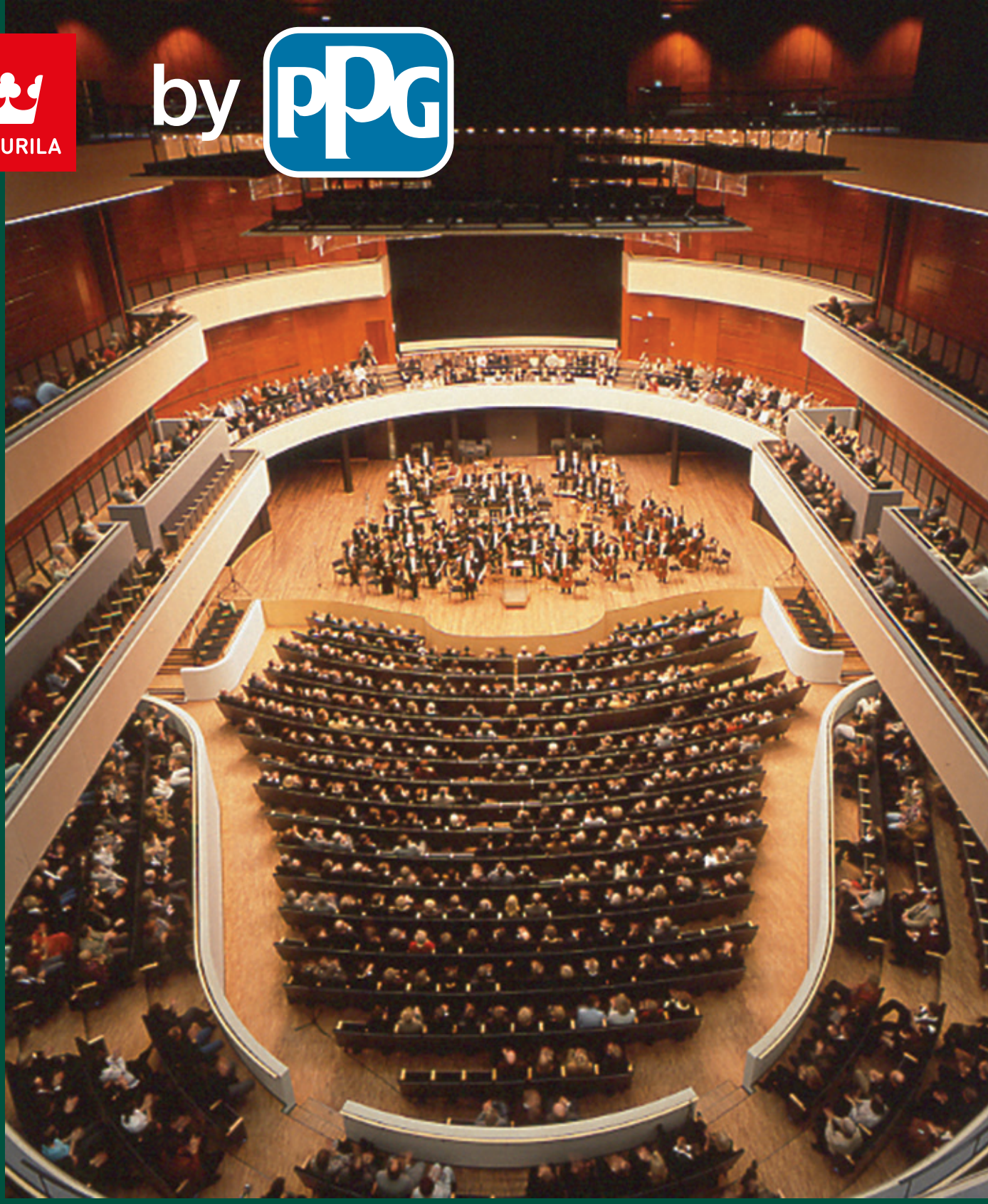
TIKKURILA by PPG



Tikkurila fire-retardant solutions

RAKENNUSTIETO · EMISSION CLASSIFICATION · M1

HIGH-LEVEL WATER-BORNE FIRE PROTECTION
FOR INTERIOR WOOD SURFACES

Enhanced safety for interior wooden structures

BUILDING WITH WOOD IS AN AESTHETIC AND ECOLOGICAL CHOICE. TO TAKE ADVANTAGE OF ITS INHERENT BEAUTY, THERE ARE SOME SPECIFIC REQUIREMENTS LIKE FIRE PROTECTION.
TIKKURILA FIRE-RETARDANT SOLUTIONS ARE DESIGNED TO PROVIDE THE HIGHEST POSSIBLE LEVEL OF FIRE PROTECTION FOR INTERIOR WOOD SURFACES.

When wooden surfaces need fire protection?

Wood can be used as a construction material without fire-protection treatment. However, depending on the site and the customer requirements, treatment can make the building safer. Fire retardants slow the ignition of wood and the spread of fire, while also creating less smoke than untreated wood. This provides valuable extra time for people to escape and for emergency services to reach them, while reducing the harmful effects of smoke inhalation.

The extra protection provided by our fire-retardant solutions allows wood to be used in a wider range of applications, for example in:

- Schools, kindergartens, and assisted-living facilities
- Storage facilities like warehouses
- Detached houses, terraced houses, and apartment buildings
- Offices
- Hotels
- Libraries
- Annexes or extra floors with wooden frames

How do fire retardants work?

When exposed to heat, fire-retardant material expands and creates an insulating foam layer on the wood surface that prevents the wood from heating up rapidly or catching fire. This is known as intumescent technology, i.e. fire protection based on the paint surface expanding when exposed to heat.

What kinds of surfaces can be achieved using fire-retardant paint systems?

The approved systems are detailed on page 4. Fontefire WF Clear can be used as a clear system topcoated with colorless Akvilac WF 10. Transparent colors can be achieved by tinting Akvilac WF 10. For an opaque surface, you can use either Fontefire WF Clear or Fontefire WF with Akvi Top DS 25.

Water-borne, safe and environment friendly

Tikkurila fire-retardant products contain no ingredients that are hazardous to humans. And since they are water-borne, they cause less emissions and are environmentally friendly and safe to use. Our fire-retardant products have been developed for both industrial and on-site painting. Industrial means that the surface treatment occurs at the factory under controlled conditions, and it can also be applied on-site, providing the same level of protection as if it were painted in the factory. Fontefire WF Clear, top lacquer Akvilac WF 10, and top paint Akvi Top DS 25 all meet the stringent requirements of the M1 certification.

Tikkurila fire-retardant solutions

Tikkurila fire-retardant products have the highest possible fire reaction class for wood material: B-s1, d0, according to standard EN 13501-1:2007+A1:2009.

The range includes:

- Fontefire WF Clear fire-retardant lacquer for all wood material and in all colors
- Fontefire WF fire-retardant paint for interior wood surfaces

TRANSPARENT SYSTEM

SUBSTRATE	SEALER	AMOUNT G/M²	TOP LAQUER	AMOUNT G/M²	CLASSIFICATION REPORT
Plywood, 9 mm [1]	Fontefire WF Clear	250 g/m²	Akvilac WF 10 all colors	70 g/m²	K108/2024

CLEAR SYSTEMS

SUBSTRATE	SEALER	AMOUNT G/M²	TOP LAQUER	AMOUNT G/M²	CLASSIFICATION REPORT
Spruce, 14 mm	Fontefire WF Clear	200 g/m²	Akvilac WF 10 clear	70 g/m²	K40/2018
Plywood, 9 mm [1]	Fontefire WF Clear	200 g/m²			K36/2019
Spruce, 14 mm	Fontefire WF Clear	200 g/m²			K40/2017

OPAQUE SYSTEMS

SUBSTRATE	SEALER	AMOUNT G/M²	TOP LAQUER	AMOUNT G/M²	CLASSIFICATION REPORT
Spruce, 14 mm	Fontefire WF Clear	200 g/m2	Akvi Top DS 25	100 g/m2	K40/A/2018
Plywood, 12 mm	Fontefire WF	350 g/m²	Akvi Top DS 25	100 g/m²	K36/2019

[1] According to EN 13238 test standard 9 mm plywood can be used as standard material for approving the fire-retardant paint. When fire-retardant lacquer is approved on standard material, it will protect against fire also other wood materials with the density factor 0,75. Plywood used in tests were made of pine with nominal density 460 kg/m³. (460 kg/m³ × 0,75 = 345 kg/m³)

FONTEFIRE
FIRE PROTECTION

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