



TIKKURILA

INDUSTRY



# Fontefire ST 60-1

A WATER-BORNE, THIN-FILM  
COATING THAT PROVIDES EFFICIENT  
FIRE PROTECTION FOR STEEL

# Protect steel from cellulosic fires

FONTEFIRE ST 60-1 IS A WATER-BORNE, THIN-FILM, INTUMESCENT PAINT FOR CONSTRUCTIONAL STEELWORK



## Limit structural damage and protect lives

Fontefire ST 60-1 is a water-borne, one-component, intumescent paint for steel surfaces. It provides efficient fire protection for constructional steelwork, with a fire resistance classification of up to R90 for 'H' or 'I' shaped beam and column sections, and the same for circular, rectangular, or square hollow sections. The design temperature range is from 350°C to 750°C.

### UP TO 90 MINUTES OF FIRE PROTECTION

In the event of a cellulosic fire, Fontefire ST 60-1 helps to maintain the structural stability of steel by rapidly expanding from a thin film into a thick foam-like layer that protects and insulates the steel structure. This can provide from 15 to 90 minutes of fire protection, giving more time for people to escape and firefighters to bring the fire under control.

### QUICK AND EASY TO APPLY

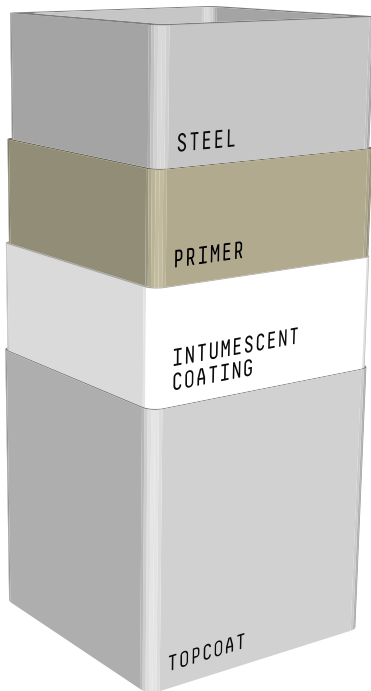
Fontefire ST 60-1 offers highly competitive loadings, reducing paint consumption and saving costs and throughput time. The lower loadings also enable faster overcoating of painted sections. As a one-component product, Fontefire ST 60-1 is easy to apply on site to a smooth matt finish with a good sagging value. It is extremely low in volatile organic compounds (VOCs), resulting in a safer working environment and meeting the most stringent environmental demands.

Fontefire ST 60-1 is CE-marked and its performance has been assessed in accordance with the European technical assessment (ETA). It is compatible with a wide range of primers and topcoats and can be used as a fire retardant on steel structures in both internal and semi-exposed conditions (Type Z<sub>1</sub>, Z<sub>2</sub>, and Y/ETAG 018-2).

### BENEFITS

- ☒ REDUCES PAINT CONSUMPTION AND LOWERS THROUGHPUT TIME AND COST
- ☒ EASY TO APPLY TO A SMOOTH MATT FINISH
- ☒ SUITABLE FOR BOTH INTERNAL AND SEMI-EXPOSED CONDITIONS
- ☒ ENSURES A SAFER WORKING ENVIRONMENT WITH VERY LOW VOCs

# Tikkurila fire-retardant system for steel



Fontefire ST 60-1 intumescent coating, together with an approved Tikkurila primer and topcoat, provides a complete system for fire protection.

## TOPCOAT

The topcoat seals off the intumescent coating and protects the surface from possible mechanical damage, while the color improves the aesthetic look of the structure. Tikkurila's approved topcoats are Fontecryl SC 50, Temadur 50, and Temalac FD 50.

## FONTEFIRE ST 60-1 INTUMESCENT COATING

The correct thickness of Fontefire ST 60-1 is applied to provide the specified level of fire protection. Depending on the size and shape of the structural steel, Fontefire ST 60-1 provides up to 90 minutes of fire resistance.

## PRIMER

Primer protects steel from corrosion. Fontefire ST 60-1 must always be primed with a tested and compatible primer. Tikkurila's approved primers are Fontecryl AP, Fontecryl SC-MR 10, Temaprime EUR, Temacoat GPL-S Primer, Temacoat Primer, and Temacoat HS-F Primer.

## TYPICAL APPLICATION AREAS

- AIRPORTS
- SHOPPING CENTERS
- SPORTS STADIUMS
- HIGH-RISE BUILDINGS
- MULTI-PURPOSE BUILDINGS
- COMMERCIAL BUILDINGS
- HEALTHCARE/HOSPITALS
- HOTELS
- EDUCATIONAL BUILDINGS
- SCHOOL GYMNASIUMS
- WAREHOUSES
- ATRIUMS
- PUBLIC BUILDINGS



## Fontefire ST 60-1 Intumescent System Selection Table

This table shows a selection of suitable primers and topcoats for Fontefire ST 60-1, making it easy to choose the right system for your requirements. Each Fontefire ST 60-1 system for structural steel has been tested in accordance with ETA 19/0602 and can be selected based on VOC emission limits, desired aesthetics, system application and mechanical properties, or product availability.

PRIMER*	INTUMESCENT	TOPCOAT	SYSTEM DESCRIPTION	ENVIRONMENTAL CONDITIONS ACCORDING TO ETAG 018-2			
				TYPE Z <sub>2</sub> Internal conditions (excl. temperatures <0°) with humidity classes other than Z <sub>1</sub>	TYPE Z <sub>1</sub> Internal conditions (excl. temperatures <0°) with high humidity	TYPE Y Internal and semi-exposed conditions (temperatures <0°, but no exposure to rain and limited exposure to UV)	TYPE X All conditions (internal, semi-exposed, and exposed)
Fontecryl AP	Fontefire ST 60-1	-	Intumescent system without topcoat	✓	✓	✓	✗
Fontecryl SC-MR 10		Fontecryl SC 50	One-component WB acrylic system with low VOCs	✓	✓	✗	✗
Temaprime EUR		Temalac FD 50	One-component SB alkyd system that's easy to apply	✓	✓	✗	✗
Temacoat Primer		Temadur 50	Two-component SB EPPUR system with good mechanical resistance	✓	✓	✗	✗
Temacoat GPL-S Primer							
Temacoat HS-F Primer							
* any of the listed primers can be used with any of the listed topcoats depending on product availability							

## INTUMESCENT CALCULATOR FOR STEEL

The Tikkurila intumescent calculator for steel allows you to select the required dry film thickness in mm of Fontefire ST 60-1 according to the valid European Technical Assessment (ETA). The selection is based on the critical temperature and time (fire resistance classification) with either a known or unknown section factor (Hp/A). If the section factor is unknown, the calculator gives the option to calculate it from a selection of common steel structures.



<https://tikkurila.com/industry/intumescent-calculator-for-steel>