

# SBI Test Report

Laboratory name MeKA Testing laboratory  
 Operator Edgars Buksans  
 Filename C:\SBICALC\Data\2602\2602-1-1.csv  
 Report identification 2602-1-1  
 Product identification Fire retardant paint RF 710 treated spruce wood

Test		Pre-test conditions		Specimen conditioning	
Standard used	EN 13823:2010	Baseline duct temperature	292.89 K	Method	Constant mass
Date of test	25/10/2017	Ambient temperature	292.09 K	Time interval	24 hours
Date of report	25/10/2017	Ambient pressure	102.929 kPa	Mass 1	9215 g
E'	17.2 MJ/m <sup>3</sup>	Relative humidity	32%	Mass 2	9211 g
<b>Apparatus specifications</b>		<b>Baseline conditions</b>		Temperature	23°C
kt	0.88	Baseline ambient oxygen	20.798%	RH	50%
kp	1.08	Baseline oxygen	20.948%		
Duct diameter	0.315 m	Baseline carbon dioxide	0.0444%		
O2 calibration delay time	12 s	Baseline smoke	99.98%		
CO2 calibration delay time	9 s				

## Specimen information

Thickness	18 mm	Mounting method	5.2.2c) in EN 13823:2010
Density		Joints	standard horizontal
Surface mass/area		Fixed to substrate?	Yes
Specimen number	1	Fixing method	screw
Date of arrival	13/10/2017	Substrate	40x40 m wood studs and calcium silicate backingboard
		Manufacturer	
		Sponsor	WorthCoatings LLC

## Test validity criteria

### Test drifts

	Initial	Final	Change
Oxygen	20.948%	20.950%	0.002%
CO2	0.044%	0.042%	0.003%
Smoke	99.98%	99.61%	0.004

**Exposure time** 1251 s

### Synchronisation details

Duct temp. dropped by 2.5 K from baseline of 315.68 K at 306 s  
 Oxygen rose by 0.05% from baseline of 20.679% at 306 s  
 CO2 dropped by 0.02% from baseline of 0.205% at 306 s

### Burner details

Burner HRR	30.563 kW
Burner HRR std. dev.	0.690 kW
Burner CO2/O2 ratio	0.599
Burner SPR	0.032 m <sup>2</sup> /s
Burner SPR std. dev.	0.003 m <sup>2</sup> /s
Burner response time	12 s

### Other checks

Minimum duct flow	0.503 m <sup>3</sup> /s
Maximum duct flow	0.657 m <sup>3</sup> /s
No T/C failure	

## Classification results

FIGRA(0.2)	146.6 W/s at 1500 s
FIGRA(0.4)	146.6 W/s at 1500 s
THR(600)	4.7 MJ
SMOGRA	28.3 m <sup>2</sup> /s <sup>2</sup> at 366 s
TSP(600)	111.2 m <sup>2</sup>

## Classification observations

LFS to edge?	No
FDP flaming <= 10s?	No
FDP flaming > 10s?	No

## Potential classification

Class	C
Smoke production	s2
Flaming droplets/particles	d0

## Recorded events

Surface flashes? No; Falling specimen parts? No; Smoke not entering hood? No  
 Mutual fixing of backing board failed? No; Distortion/collapse of specimen? No

## Pre-test comments

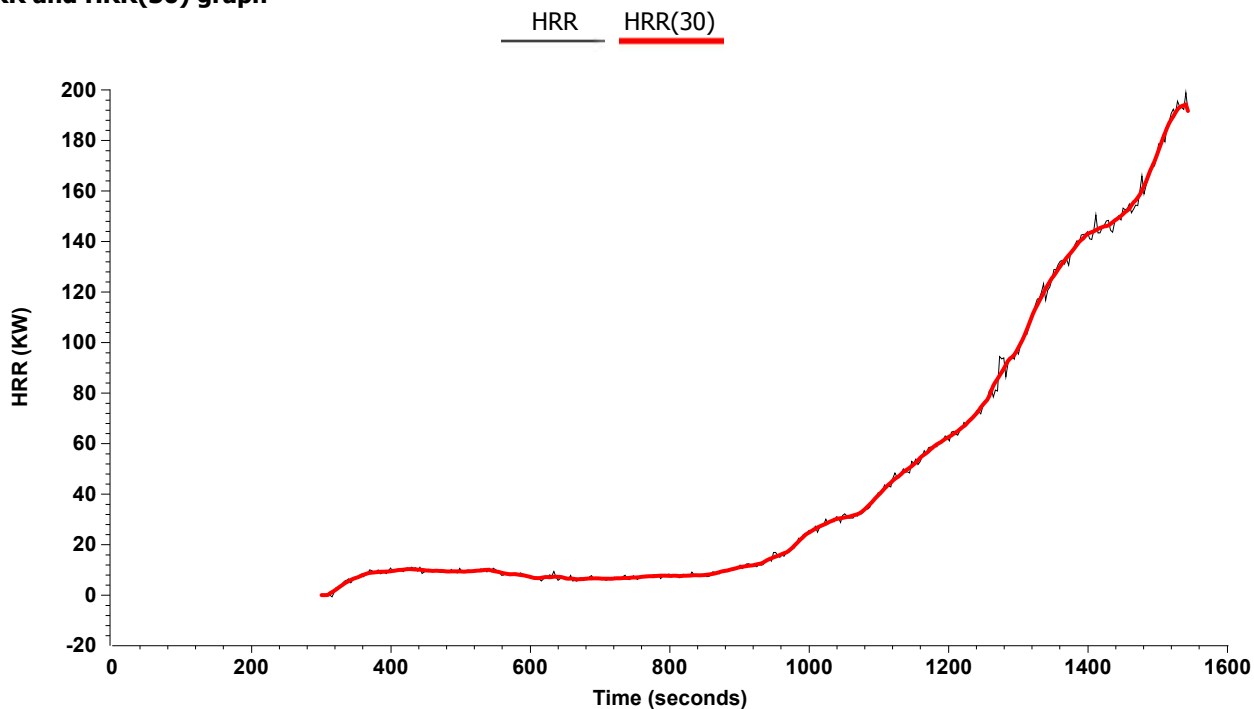
Fire retardant paint total coverage 300 g/m<sup>2</sup>

## After-test comments

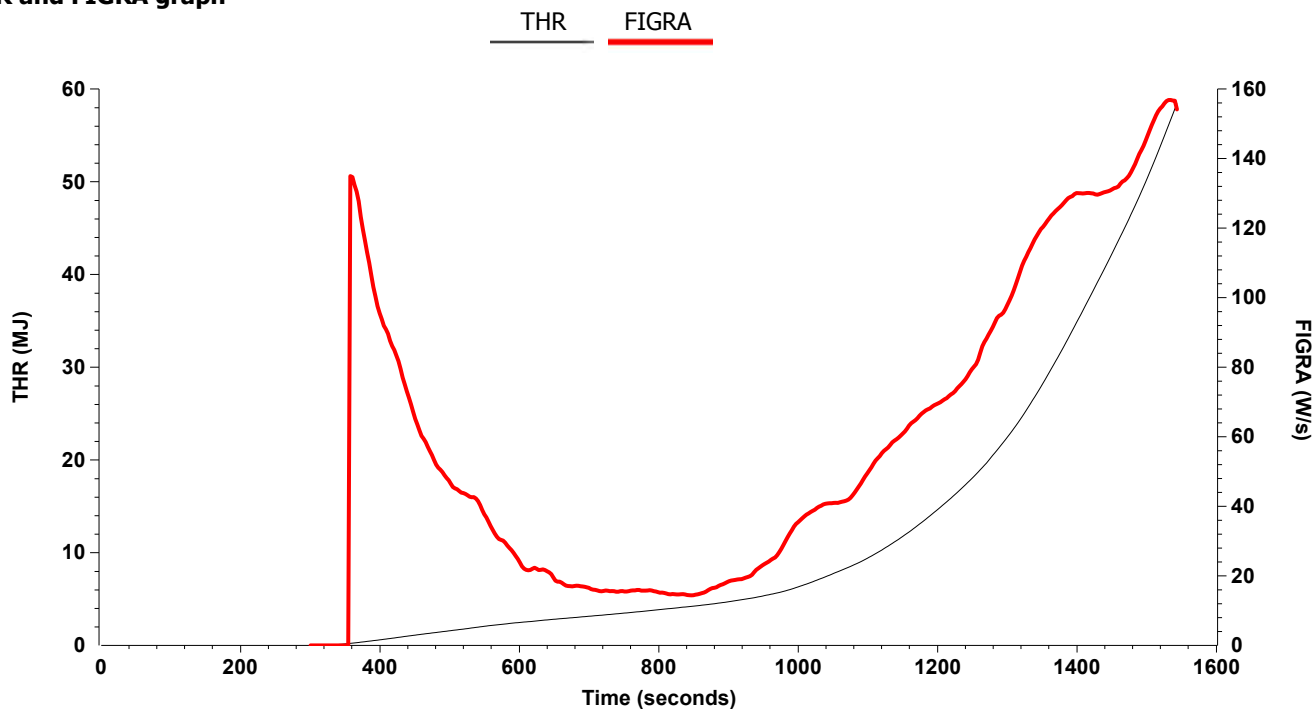
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## HRR and HRR(30) graph



## THR and FIGRA graph

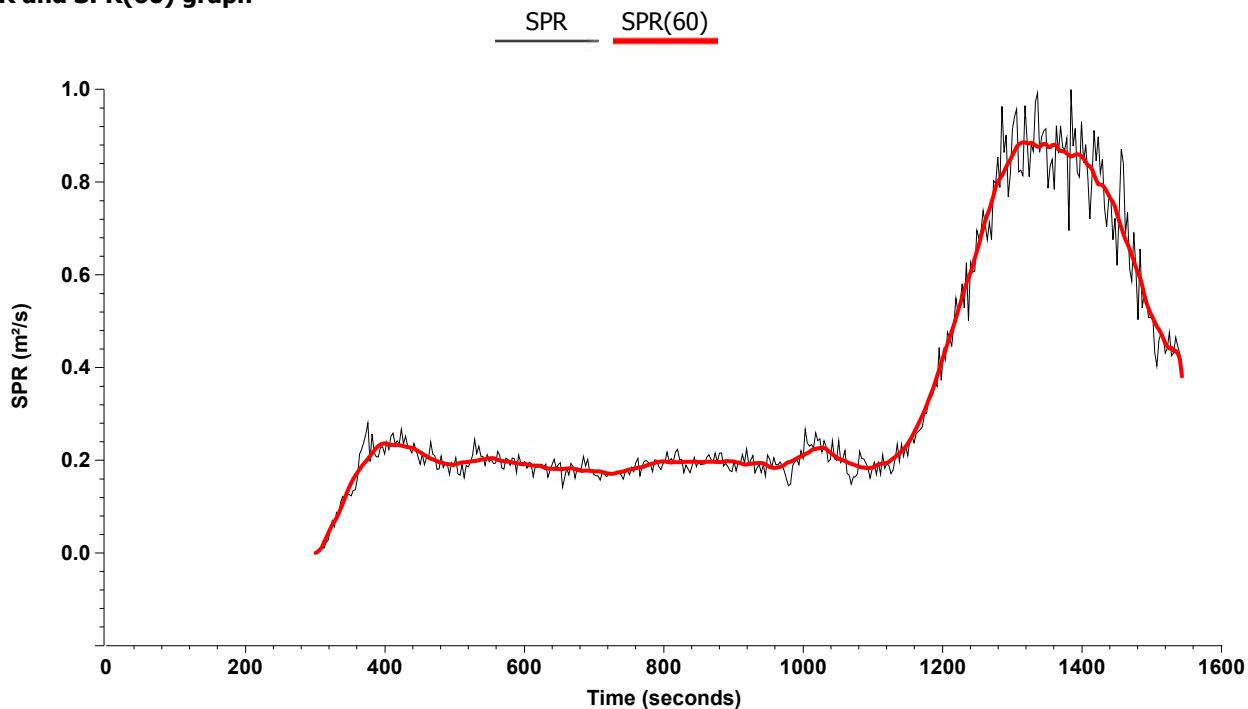


The test results relate to the behaviour of the test specimens of a product under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use.

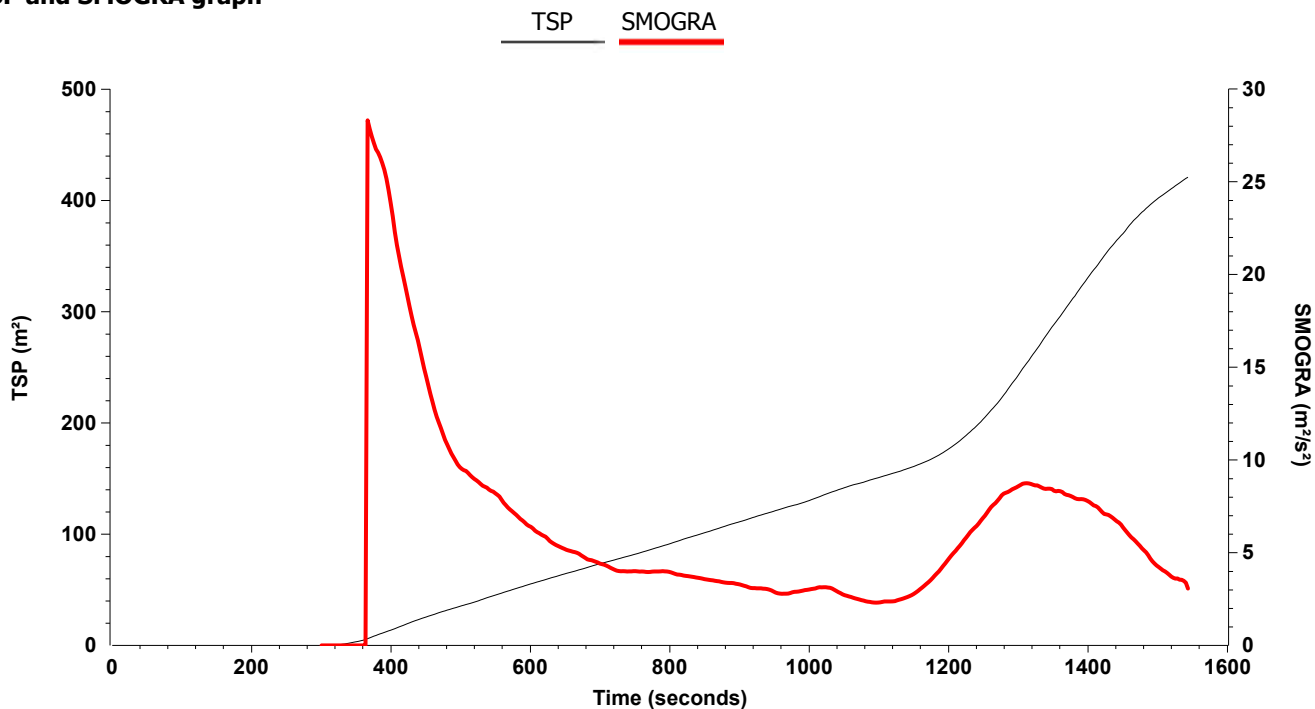
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## SPR and SPR(60) graph



## TSP and SMOGRA graph



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