SBI Test Report

Laboratory name	MeKA Testing laboratory
Operator	Edgars Buksans
Filename	C:\SBICALC\Data\2550\2550-1.csv
Report identification	2550-1
Product identification	Flame retardant varnish WP-710

Test

Standard used	EN 13823:2010
Date of test	27/09/2017
Date of report	27/09/2017
E'	17.2 MJ/m³

Apparatus specifications

kt	0.88
kp	1.08
Duct diameter	0.315 m
O2 calibration delay time	12 s
CO2 calibration delay time	9 s

Pre-test conditions

Baseline duct temperature	297.36 K
Ambient temperature	296.59 K
Ambient pressure	105.292 kPa
Relative humidity	42%

Baseline conditions

Baseline ambient oxygen	20.698%
Baseline oxygen	20.952%
Baseline carbon dioxide	0.0441%
Baseline smoke	100.02%

Specimen conditioning

Method	Constant mass
Time interval	24 hours
Mass 1	2602 g
Mass 2	2600 g
Temperature	23°C
RH	50%

Specimen information

Thickness	12 mm
Density	680 kg/m³
Surface mass/area	
Specimen number	1
Date of arrival	13/09/2017
Mounting method	5.2.2b) in EN 13823:2010
Joints	none
Fixed to substrate?	Yes
Fixing method	none
Substrate	wood particleboard
Manufacturer	
Sponsor	WorthCoatings LLC

Test validity criteria

Test drifts

	Initial	Final	Change
Oxygen	20.952%	20.956%	0.005%
CO2	0.044%	0.043%	0.001%
Smoke	100.02%	99.45%	0.006

Exposure time 1254 s

Synchronisation details

Duct temp. dropped by 2.5 K from baseline of 319.81 K at 303 s
Oxygen rose by 0.05% from baseline of 20.691% at 303 s
CO2 dropped by 0.02% from baseline of 0.201% at 303 s

Burner details

Burner HRR	29.959 kW
Burner HRR std. dev.	0.698 kW
Burner CO2/O2 ratio	0.602
Burner SPR	0.032 m²/s
Burner SPR std. dev.	0.004 m²/s
Burner response time	9 s

Other checks

Minimum duct flow	0.570 m³/s
Maximum duct flow	0.667 m³/s
No T/C failure	

Classification results

FIGRA(0.2)	41.5 W/s at 618 s
FIGRA(0.4)	41.5 W/s at 618 s
THR(600)	5.0 MJ
SMOGRA	3.8 m²/s² at 567 s
TSP(600)	44.0 m²

Classification observations

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

Potential classification

Class	A2/B
Smoke production	s1
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 Flame retardant varnish aplied on substrate 3 coats with total consumption 420 g/m2 (wet)

After-test comments

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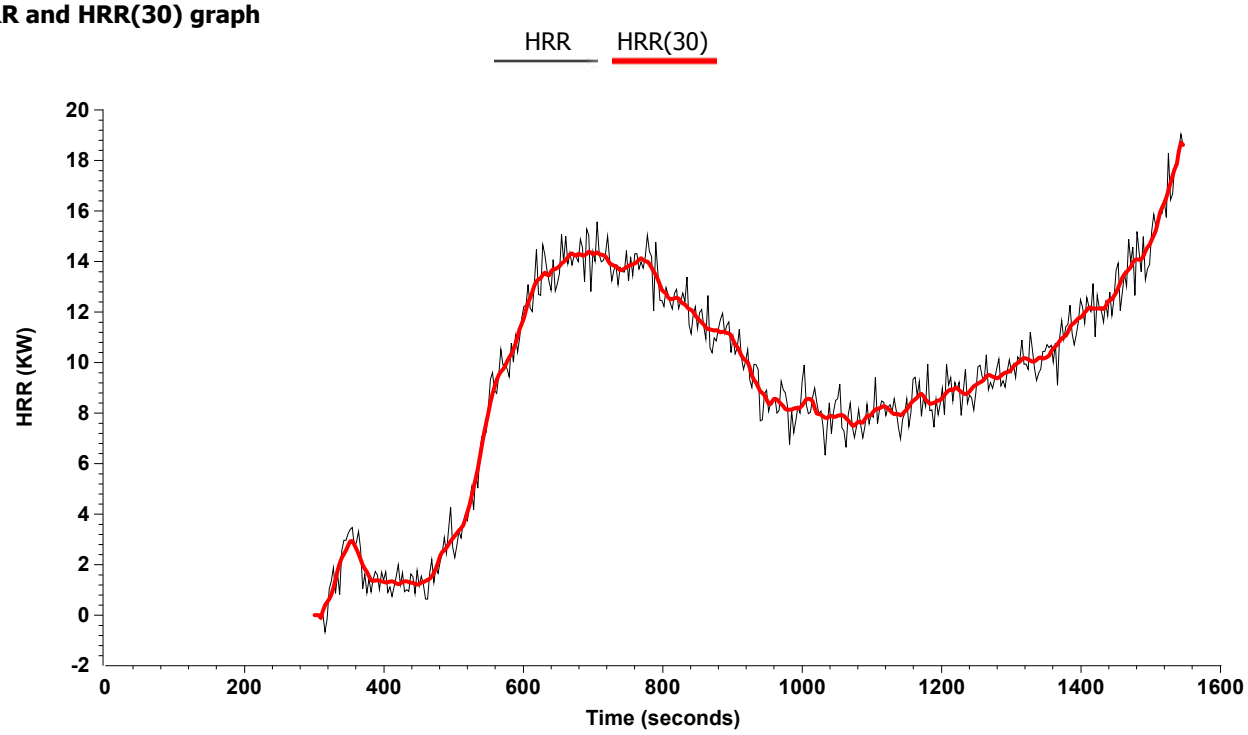
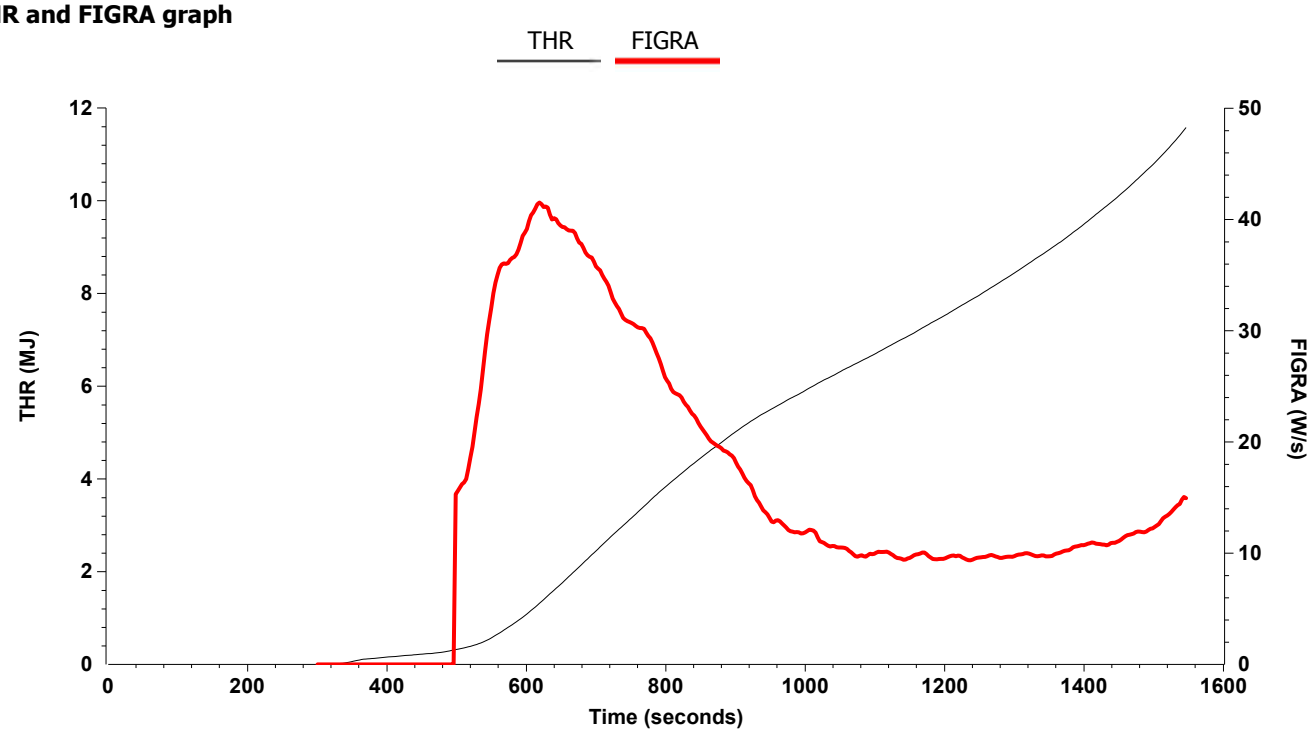
HRR and HRR(30) graph



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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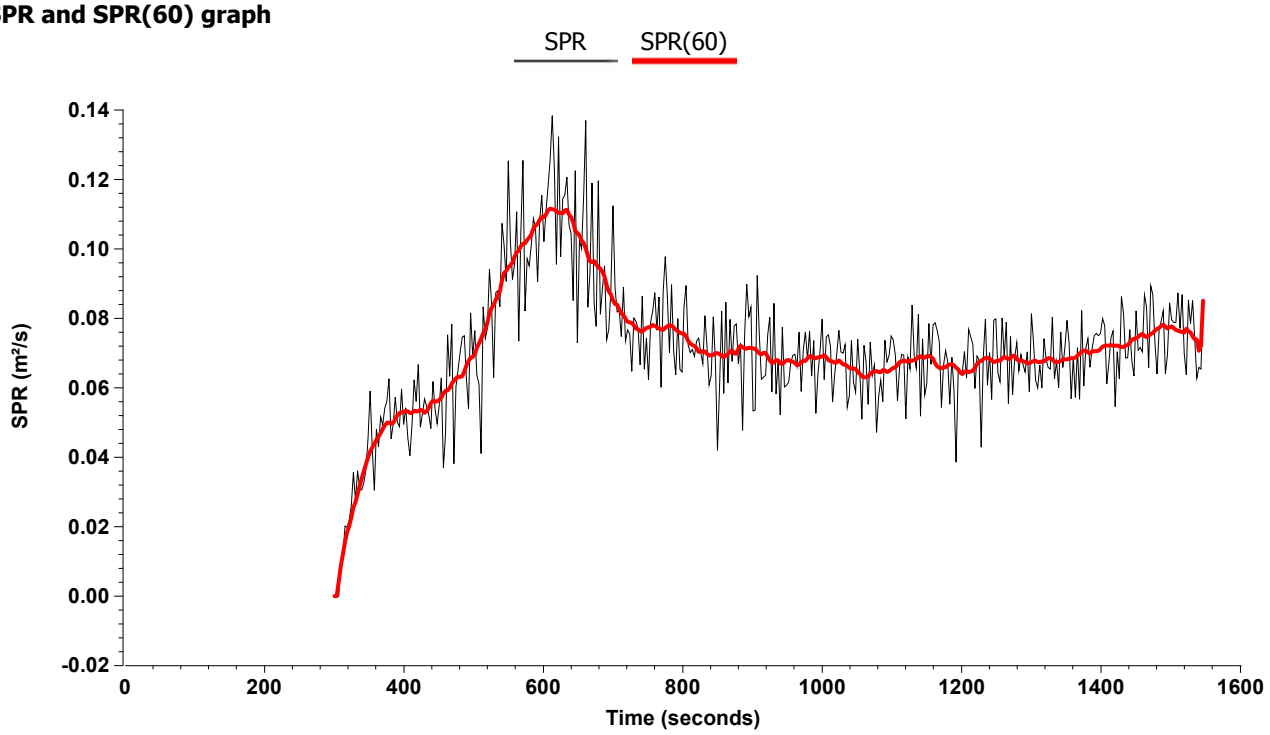
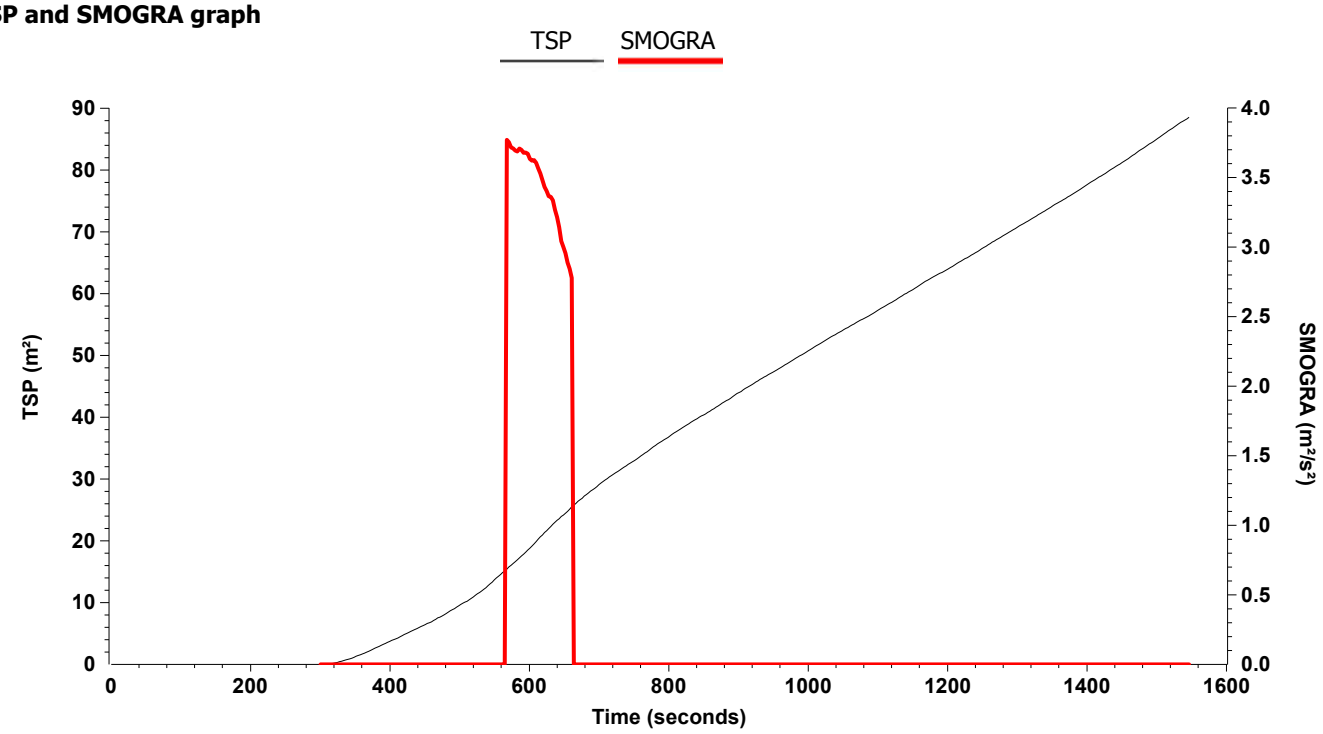
SPR and SPR(60) graph



TSP and SMOGRA graph



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