

SBI Test Report

Laboratory name MeKA Testing laboratory
 Operator Edgars Buksans
 Filename C:\SBICALC\Data\2713\2713-1.csv
 Report identification 2713-1
 Product identification Fire retardant paint Retaflame WP 710 treated wood particleboard substrate

| Test | | Pre-test conditions | | Specimen conditioning | |
|----------------------------|------------------------|---------------------------|-------------|-----------------------|---------------|
| Standard used | EN 13823:2010 | Baseline duct temperature | 289.98 K | Method | Constant mass |
| Date of test | 27/12/2017 | Ambient temperature | 289.73 K | Time interval | 24 hours |
| Date of report | 27/12/2017 | Ambient pressure | 100.583 kPa | Mass 1 | 6294 g |
| E' | 17.2 MJ/m ³ | Relative humidity | 37% | Mass 2 | 6294 g |
| Apparatus specifications | | Baseline conditions | | Temperature | 23°C |
| kt | 0.86 | Baseline ambient oxygen | 20.802% | RH | 50% |
| kp | 1.08 | Baseline oxygen | 20.950% | | |
| Duct diameter | 0.315 m | Baseline carbon dioxide | 0.0431% | | |
| O2 calibration delay time | 12 s | Baseline smoke | 100.01% | | |
| CO2 calibration delay time | 9 s | | | | |

Specimen information

| | | | |
|-------------------|------------|---------------------|-----------------------------|
| Thickness | 12 mm | Mounting method | 5.2.2b) in EN 13823:2010 |
| Density | | Joints | none |
| Surface mass/area | | Fixed to substrate? | Yes |
| Specimen number | 1 | Fixing method | none |
| Date of arrival | 14/12/2017 | Substrate | wood particleboard |
| | | Manufacturer | |
| | | Sponsor | Retaflame/Worthcoatings LLC |

Test validity criteria

Test drifts

| | Initial | Final | Change |
|--------|---------|---------|--------|
| Oxygen | 20.950% | 20.942% | 0.007% |
| CO2 | 0.043% | 0.046% | 0.003% |
| Smoke | 100.01% | 99.60% | 0.004 |

Exposure time 1254 s

Synchronisation details

Duct temp. dropped by 2.5 K from baseline of 313.92 K at 303 s
 Oxygen rose by 0.05% from baseline of 20.667% at 303 s
 CO2 dropped by 0.02% from baseline of 0.213% at 303 s

Burner details

| | |
|----------------------|-------------------------|
| Burner HRR | 29.925 kW |
| Burner HRR std. dev. | 0.529 kW |
| Burner CO2/O2 ratio | 0.603 |
| Burner SPR | 0.028 m ² /s |
| Burner SPR std. dev. | 0.005 m ² /s |
| Burner response time | 12 s |

Other checks

| | |
|-------------------|-------------------------|
| Minimum duct flow | 0.534 m ³ /s |
| Maximum duct flow | 0.621 m ³ /s |
| No T/C failure | |

Classification results

| | |
|------------|---|
| FIGRA(0.2) | 63.3 W/s at 510 s |
| FIGRA(0.4) | 63.3 W/s at 510 s |
| THR(600) | 6.5 MJ |
| SMOGRA | 8.4 m ² /s ² at 465 s |
| TSP(600) | 52.2 m ² |

Classification observations

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

Potential classification

| | |
|----------------------------|------|
| Class | A2/B |
| 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

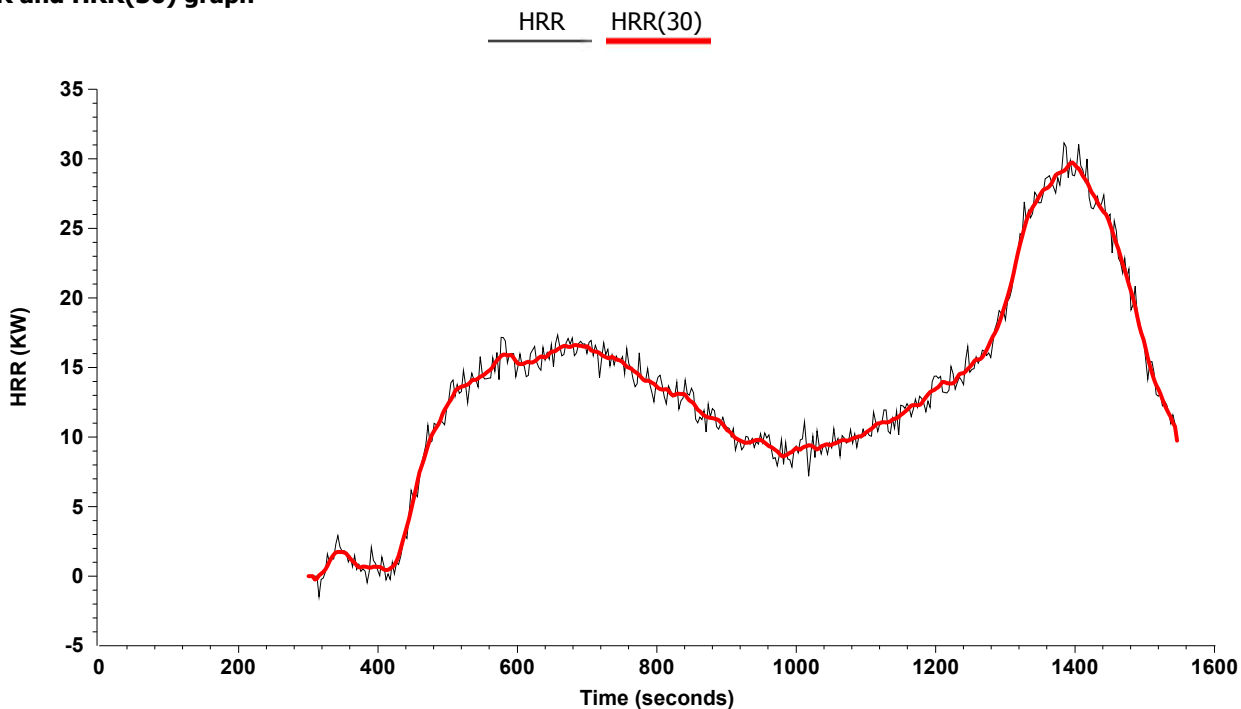
Paint applied in two layers with total consumption 400 g/m²

After-test comments

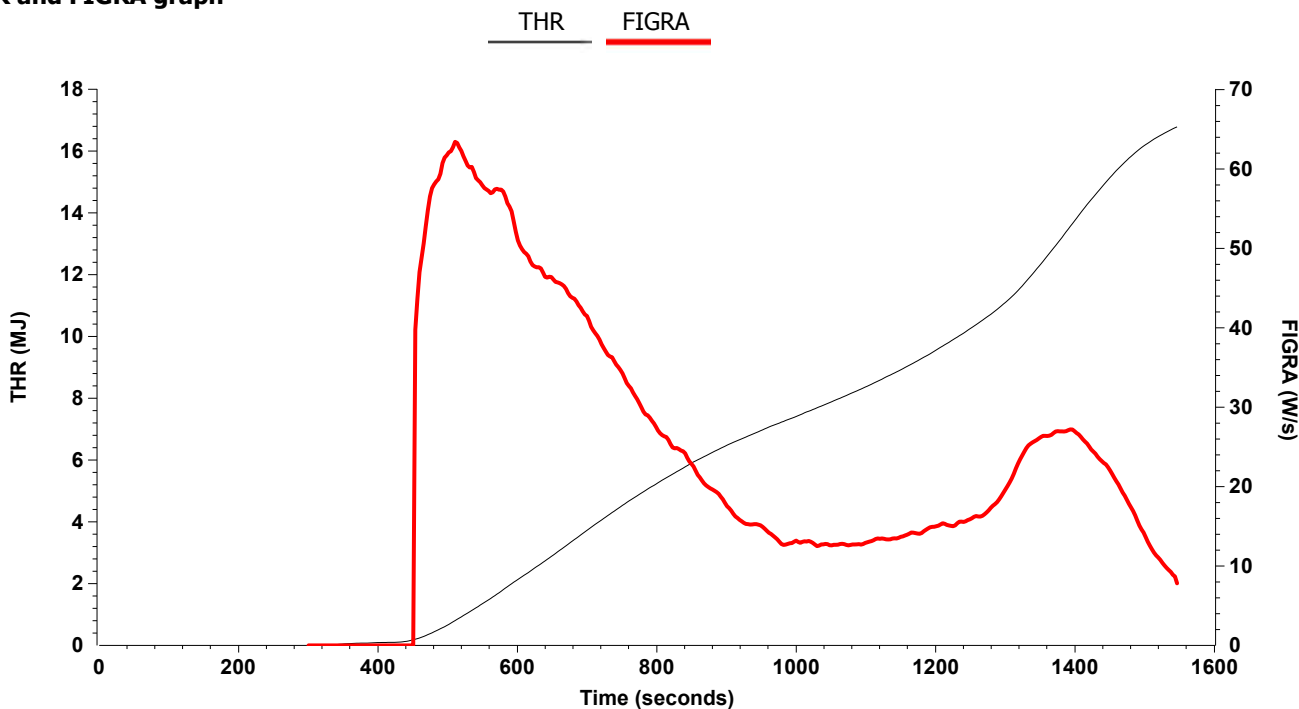
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HRR and HRR(30) graph



THR and FIGRA graph

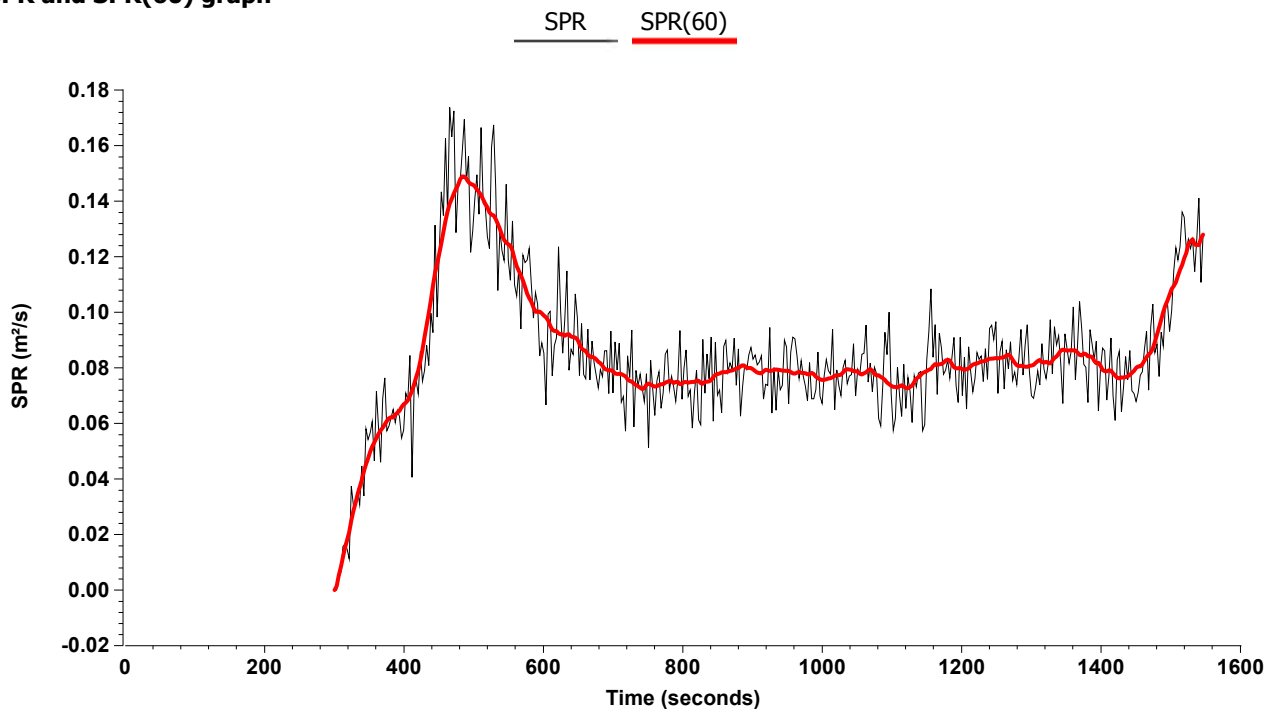


The test results relate to the behaviour of the test specimens of a product under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use.

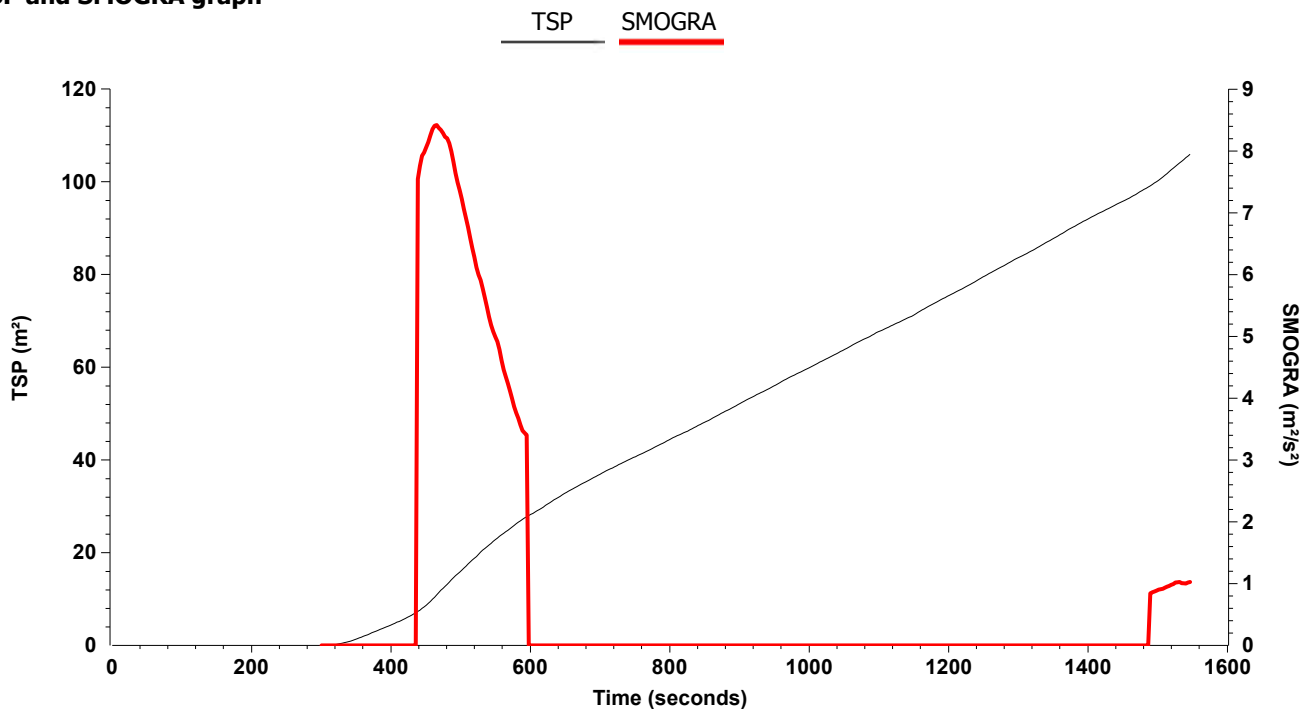
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SPR and SPR(60) graph



TSP and SMOGRA graph



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