

Construction products

General information

Date of test 04/05/2023
 Report identification number/file ENL-23-000014_1.xls
 Operator LEG

Specimen

Sponsor Sign Again
 Description Sign Again

Standard used EN 13823:2020

Fire attack

Start of test [s] 300
 Burner exposure time [s] 1200
 Burner exposure level [kW] 31,6 Std 0,28

Results

Heat release related

| | [kW] | t-t0 [s] | t[s] |
|-------------------------|------|----------|------|
| Peak HRRav (t<t0+600s) | 63,7 | 201 | 501 |
| Peak HRRav (t<t0+900s) | 63,7 | 201 | 501 |
| Peak HRRav (t<t0+1200s) | 63,7 | 201 | 501 |

(t0 = 300s)

| | | | |
|-------------|-------|-----|---|
| Figra0.2 MJ | [W/s] | 355 | |
| Figra0.4 MJ | [W/s] | 355 | D |

| Figra | [W/s] | 355 | D |
|----------------------------------|-------|------|-----|
| Figra0.2 MJ: Corresponding HRRav | [kW] | 51,2 | 144 |
| Figra0.4 MJ: Corresponding HRRav | [kW] | 51,2 | 144 |

| | | | |
|------------------------------|------|-------|-----|
| t(HRRav >= 3 kW) | | 30 | 330 |
| (HRRav + t(THRta)) >= 0.2 MJ | [kW] | 11,78 | 54 |
| (HRRav + t(THRta)) >= 0.4 MJ | [kW] | 17,7 | 69 |

THRta (t0+600s) [MJ] 18,77 D or worse

THRta (t0+900s) [MJ] 21,6

THRta (t0+1200s) [MJ] 23,3

(t0 = 300s) **Estimated class: D or worse**

Lateral flame spread

Till long wing end of specimen No No = not to long wing end of specimen

Estimated class: D or worse

Smoke production related

| | [m²/s] | t-t0 (s) | t(s) |
|-------------------------|--------|----------|------|
| Peak SPRav (t<t0+600s) | 4,77 | 144 | 444 |
| Peak SPRav (t<t0+900s) | 4,77 | 144 | 444 |
| Peak SPRav (t<t0+1200s) | 4,77 | 144 | 444 |

(t0 = 300s)

Smogra max [m²/s²] 389,9 s3

at SPRav [m²/s] 3,98 102 402

t(SPRav >= 0.1 m²/s) 21 321

t(TSPta >= 6 m²) 42 342

TSPta (t0_t0+600s) [m²] 1208 s3

TSPta (t0_t0+900s) [m²] 1296

TSPta (t0_t0+1200s) [m²] 1337

(t0 = 300s) **Estimated class: s3**

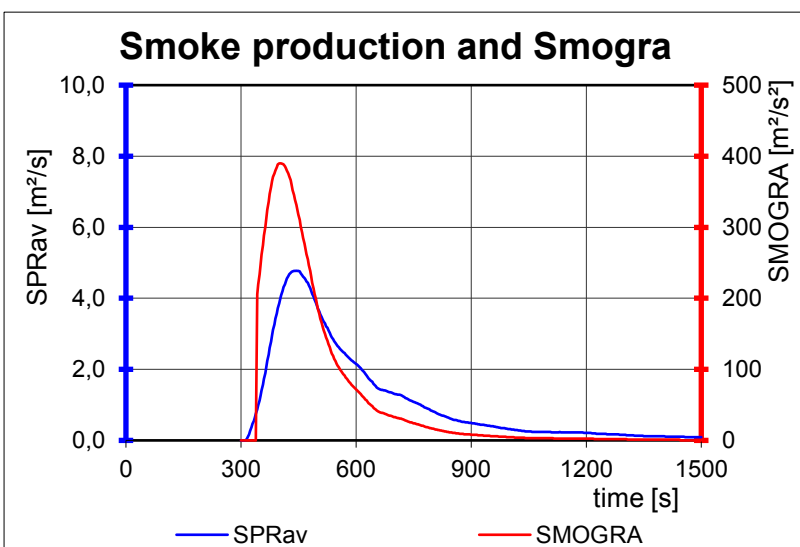
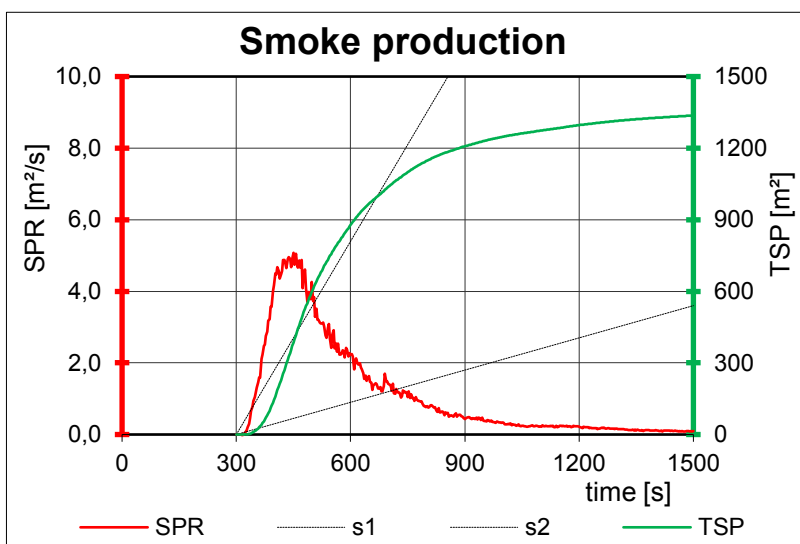
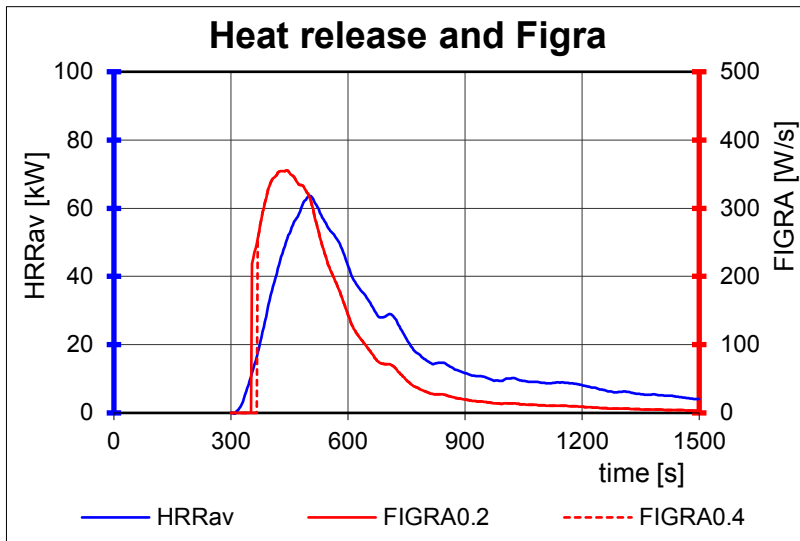
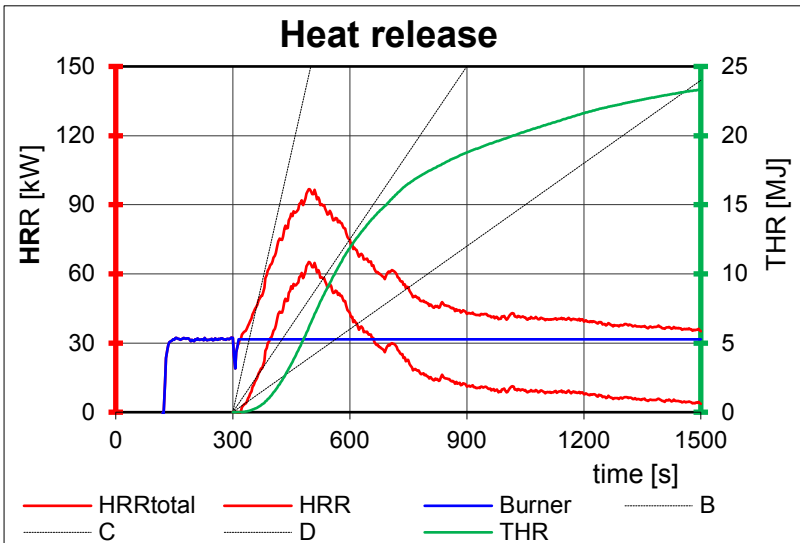
Flaming droplets/particles related

Flaming droplets/particles

FDP (t0_t0+600s) Yes No = no flaming droplets/particles

FDP (t0_t0+600s) F>10s Yes No = no flaming droplets/particles F>10s

(not d0 or d1) **Estimated class: d2**



| Classification criteria | A1* | A2-B | C | D |
|-------------------------|---------------|-----------|-----------|-----------|
| FIGRA _{0,2MJ} | [W/s] <= 20 | 120 | | |
| FIGRA _{0,4MJ} | [W/s] <= | | 250 | 750 |
| THR _{600s} | [kW] <= 4 | 7,5 | 15 | |
| | s1, d0 | s1 | s2 | s3 |
| SMOGRA | [m²/s²] <= | 30 | 180 | not s1/s2 |
| TSP _{600s} | [m²] <= | 50 | 200 | not s1/s2 |

* External non-substantial component having PCS > 2,0 MJ/kg and a PCS ≤ 2,0 MJ/m²

Final classification assessment is based on 3 repetitive SBI tests and other tests:
 - A1: EN ISO 1182 or EN ISO 1716
 - A2: EN ISO 1182 or EN ISO 1716
 - B, C, D: EN ISO 11925-2