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**Efectis Nederland report**

**2008-Efectis-R0431[Rev.1](E)**

Reaction to fire testing of Vescom vinyl wall  
covering with a Fibre Structure, a total weight of  
550 g/m<sup>2</sup> according to EN 13823:2002

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**Product identification:**

Product name:

**Vescom vinyl wall covering with Fibre Structure, total weight of approx. 550 g/m<sup>2</sup>**, further referred to as 'the product'.

Revision information:

With an addition in the product name and a new product description.

Original date of issue: June 2008

**Abstract:**

Three samples of the product were subjected to a Single Burning Item test according to EN 13823:2002.

**Intended application:**

The product will be used as a wall covering.

**Manufacturer/importer:**

Vescom BV  
P.O. Box 70  
NL-5750 AB DEURNE  
The Netherlands

**Product description:**

According to the sponsor the product is composed of a vinyl topcoat of approx. 510 g/m<sup>2</sup> and a cotton backing fabric of 40 g/m<sup>2</sup> (total weight approx. 550 g/m<sup>2</sup>). The product has a relief Fibre Structure.

**Samples:**

Sampling procedure: The samples were sent in by the sponsor.

Age: At the time of receipt: no information received.  
At the start of the examinations: 8 weeks.

Date of receipt: April 2008

**Specimen preparation:**

Substrates used: Class A1 substrate, acc. to EN 13501-1

Method of fixing: As defined in the EN 13238, the product was glued to the substrate, according to the manufacturer's instructions, using the special adhesive "Vescom 2000".

Method of mounting: The long specimen wing was provided with a vertical butt joint at a distance of 200 mm from the inner corner.  
See photographs of the SBI test at the end of the report.

Conditioning: Prior to the examinations the specimens were conditioned over a period of 8 weeks at a temperature of (23 ± 2) °C and a relative humidity of (50 ± 5) % according to § 4.1 of EN 13238:2001.

**Examination:**

Number of tests: A total of three Single Burning Item tests were carried out, all in accordance with EN 13823:2002.

Deviations from the test method: None

Harmonised Product Standard: At the time of examination of the product, the sponsor was not aware of a related existing Harmonised Product Standard.

Dates of examination: May 26-27, 2008

The results are given in Table 1.

Table 1: Single Burning Item classification parameter results

Test number	1	2	3	Classification parameter
Test parameter				
FIGRA Threshold: 0.2 MJ [W/s]	82	95	127	<b>101</b>
FIGRA Threshold: 0.4 MJ [W/s]	67	87	122	<b>92</b>
THR <sub>600</sub> [MJ]	2.1	2.4	2.3	<b>2.3</b>
Lateral flame spread (LFS) to the edge of the long wing specimen {Y=Yes, N=No}	N	N	N	<b>N</b>
SMOGRA [m <sup>2</sup> /s <sup>2</sup> ]	85	86	110	<b>94</b>
TSP <sub>600</sub> [m <sup>2</sup> ]	152	158	177	<b>162</b>
Flaming droplets/particles (flaming ≤ 10 s) {Y=Yes, N=No}	N	N	N	<b>N</b>
Flaming droplets/particles (flaming > 10 s) {Y=Yes, N=No}	N	N	N	<b>N</b>

*Observations of physical behaviour of the test specimen:* None

**Conclusions:**

A formal classification is to be assessed in accordance with EN 13501-1, “Fire classification of construction products and building elements – Part 1: Classification using data from reaction to fire tests”.

Graphs of Rate of Heat Release (HRR<sub>av</sub>(t)), Rate of Smoke Production (SPR<sub>av</sub>), Total Heat release (THR<sub>a</sub>), Total Smoke Production (TSP<sub>ta</sub>), FIGRA and SMOGRA, are presented hereafter followed by some photographs of the test setup and test result.

*Remarks:*

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.

Regarding the estimated precision of the test method, the following information is given in Annex B of EN 13823:

Table B.2 — Average relative standard deviations

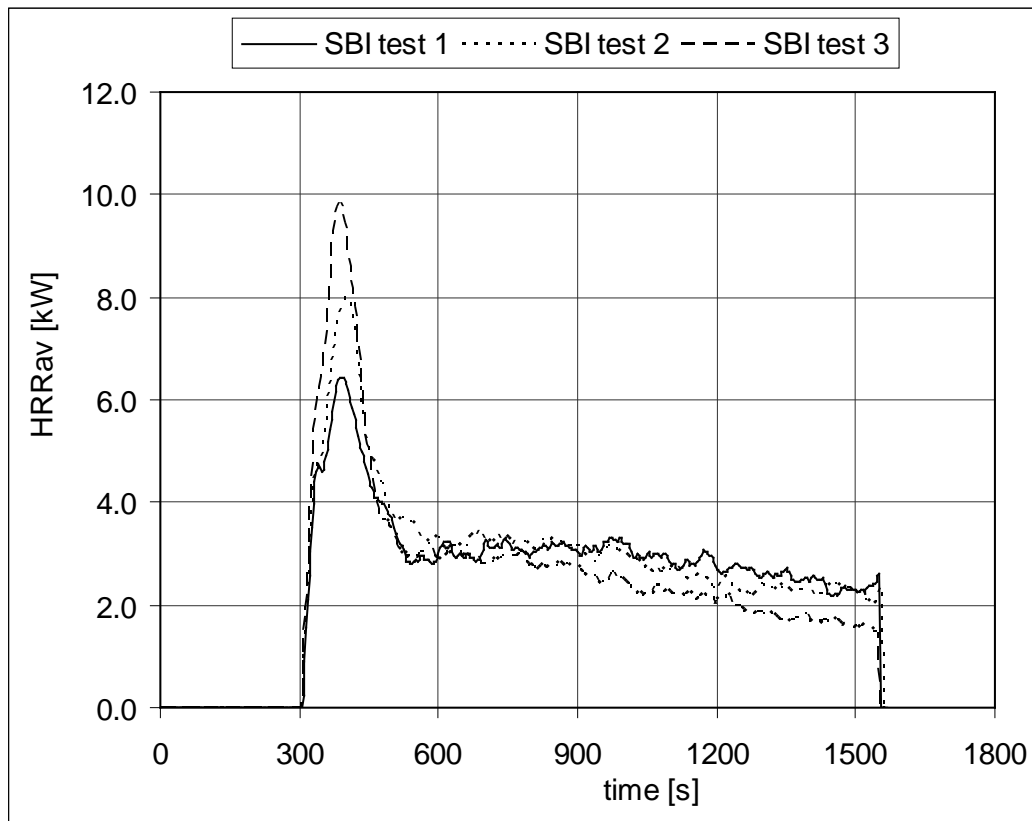
	FIGRA <sub>0,2MJ</sub>	FIGRA <sub>0,4MJ</sub>	THR <sub>600s</sub>	SMOGRA	TSP <sub>600s</sub>
Average ( $s_r$ /m)	14 %	15 %	11 %	15 %	18 %
Average ( $s_g$ /m)	23 %	25 %	21 %	40 %	44 %



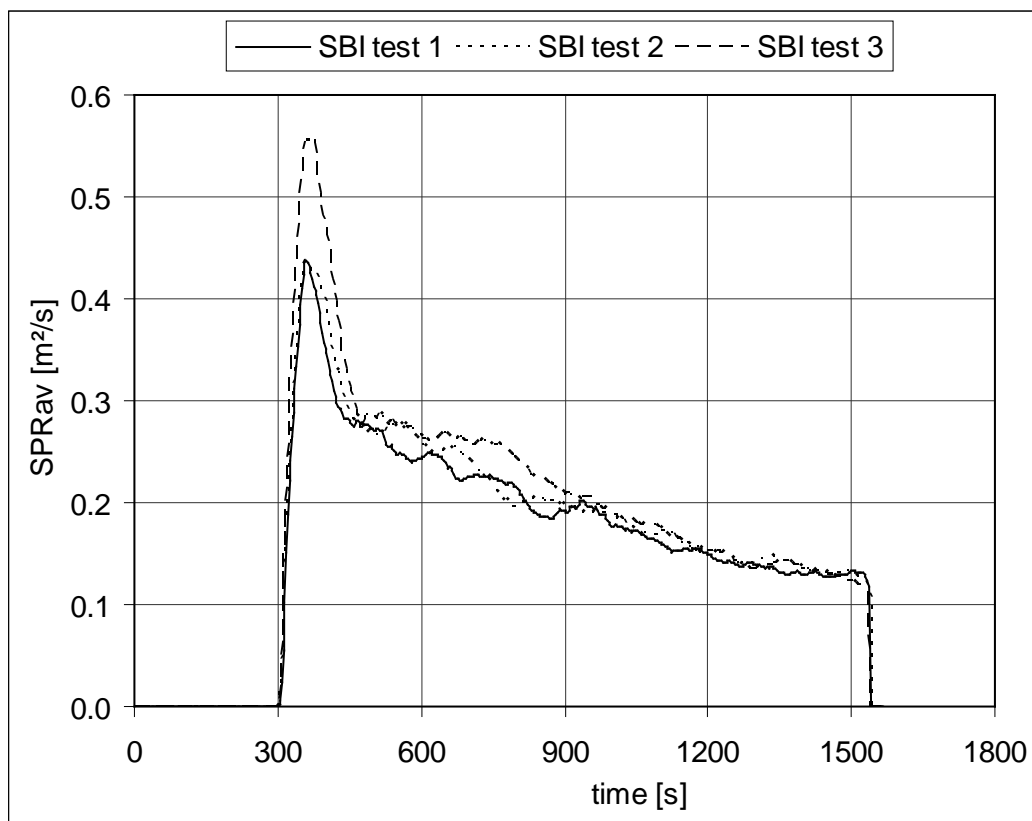
Ing. C.C.M. Steinhage



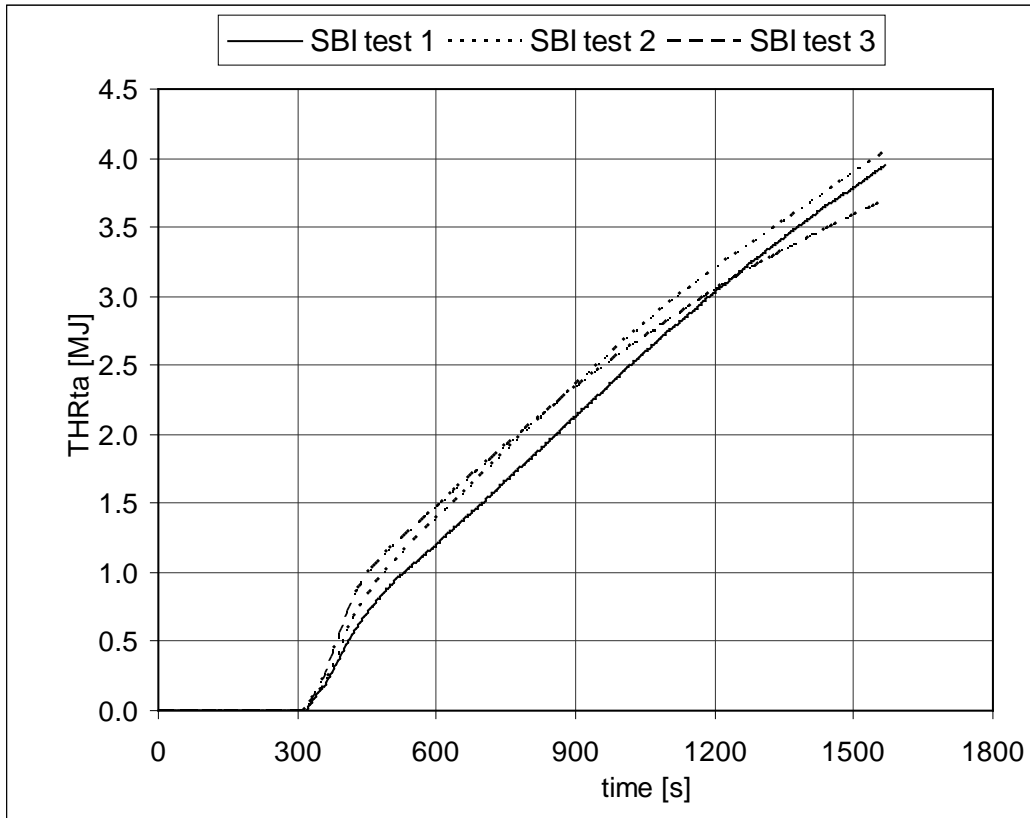
A.J. lock



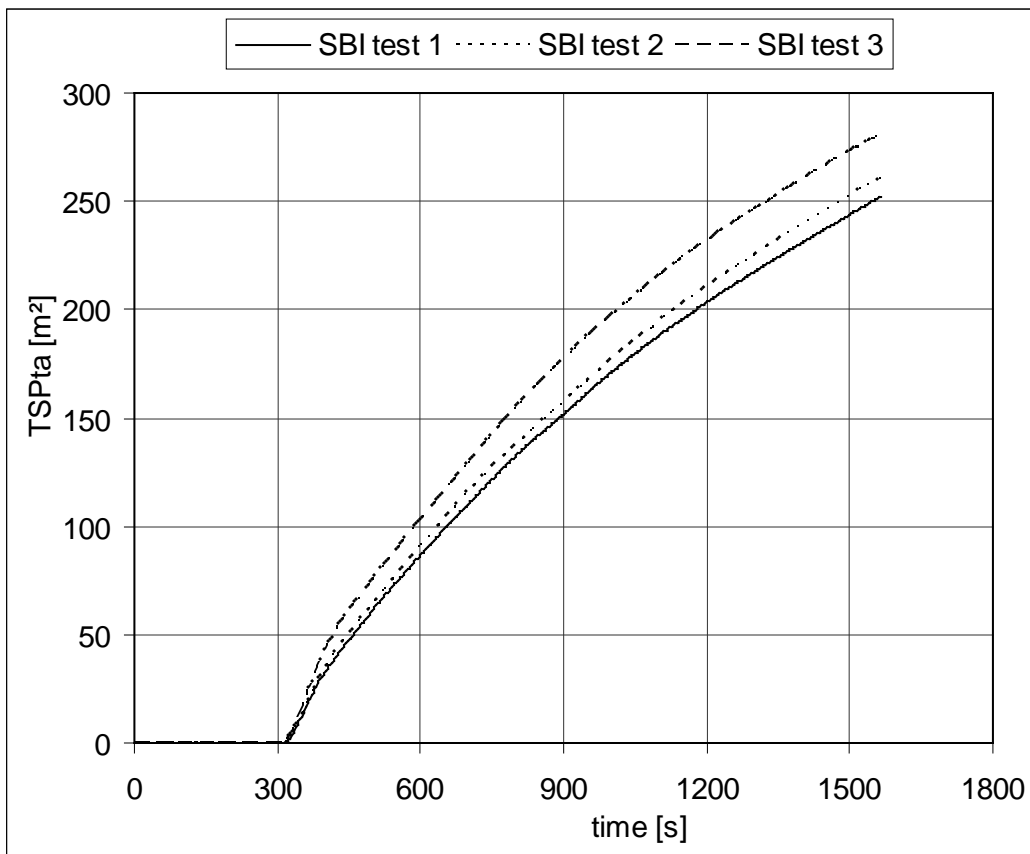
Rate of Heat Release (HRRav(t)) [kW]



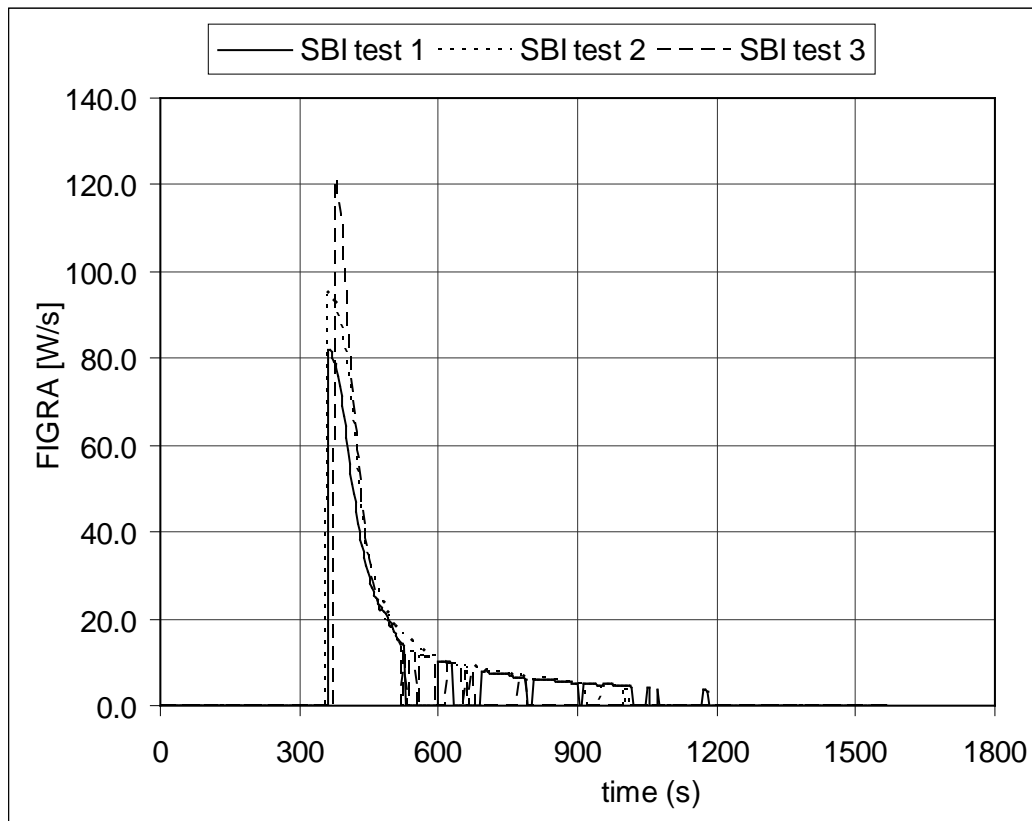
Rate of Smoke Production (SPRav) [m<sup>2</sup>/s]



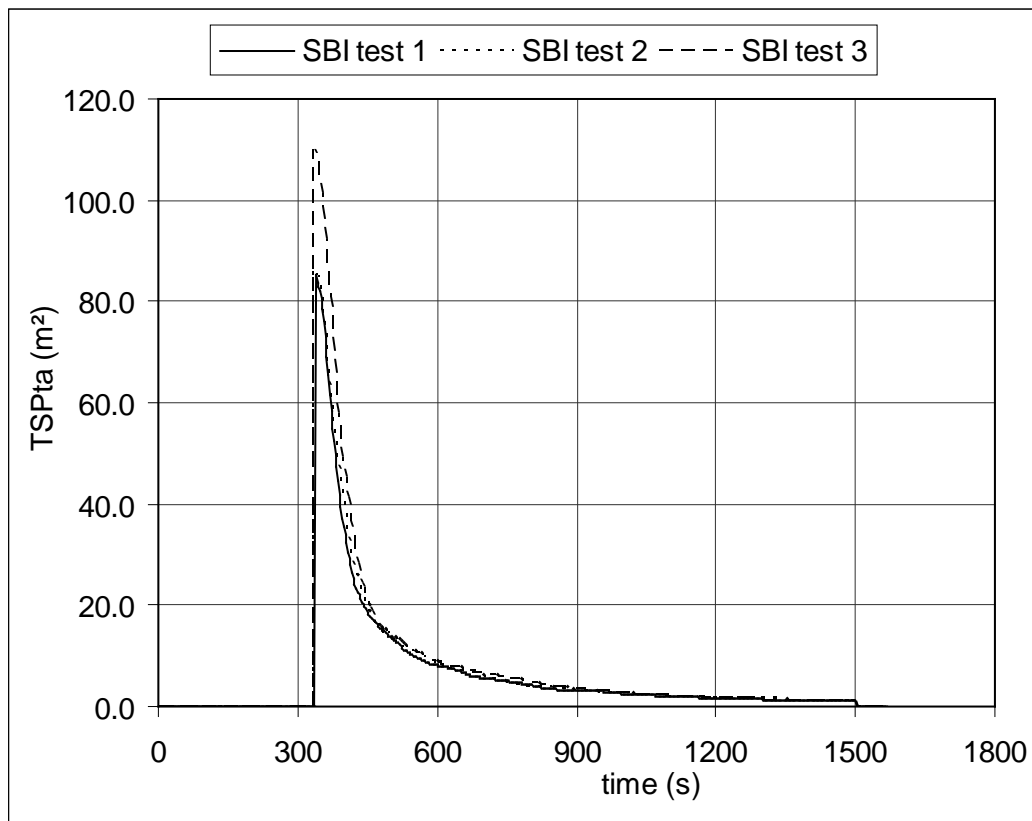
Total Heat release (THRa) [MJ]



Total Smoke Production (TSPta) [m<sup>2</sup>]



FIGRA [W/s]



SMOGRA [m<sup>2</sup>/s<sup>2</sup>]



Specimen 1 prior to testing



Specimen 1 after testing

Photographs of the SBI test 1