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TEST REPORT

CLIENT: **VIPEQ HISPANIA**

APPLICANT: **RAMON MILLAN AND JOSE LUIS VIANA**

ADDRESS: **POL. MOREA NORTE, C/D Nº 14
31191 BERIAIN (NAVARRA)**

MATERIAL TESTED: **MIX OF POLYMERS, CORK AND ADDITIVES
IN AN AQUEOUS SYSTEM
REF. "VIPEQ INSULATION"**

PURPOSE OF THE REQUEST: **REACTION TO FIRE TEST IN ACCORDANCE WITH
UNE-EN 13823:2002 AND UNE EN ISO 11925-2:2002**

DATE OF RECEIPT: **29.09.2008**
DATE OF TEST COMMENCEMENT: **29.09.2008**
DATE OF TEST COMPLETION: **22.12.2008**
DATE OF ISSUE OF REPORT: **04.11.2010**

The results compiled in this report refer only to the material received and submitted to testing at this Research Centre on the dates indicated.

This report consists of twenty (20) pages and amends and annuls report 19997. The amendment of the report is due to the updating of the technical data sheet and of the applicant due to the change in the company's name, and may not be reproduced without the express authorisation of CIDEMCO, unless when done so in full.

Pablo Garmendia
Fire Safety and Protection
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Fire Safety and Protection Manager
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SAMPLE CHARACTERISTICS

On 29 September 2008, CIDEMCO received from the company VIPEQ HISPANIA samples of mix of polymers, cork and additives in an aqueous system applied to calcium silicate, 3 measuring (1500 x 1000 x 11) mm, long wing, and 3 measuring (1000 x 500 x 11) mm, short wing, as specified in standard UNE EN 11925:2002 and referred to as:

"VIPEQ INSULATION"

The photographs and the technical data sheet for the material are attached in the appendix.

TEST REQUESTED

The test requested was the ***Reaction to fire test for building products. Building products excluding floorings exposed to the thermal attack by a single burning item*** in accordance with standard UNE EN 13823:2002.

The test requested was the ***Reaction to fire test for building materials. Ignitability of building products subjected to direct impingement of flame. Part 2: Single-flame source test*** in accordance with standard UNE EN ISO 11925-2:2002.

CONDITIONING

The specimen was conditioned prior to testing under the conditions described in standard UNE EN 13238:2002. ***Reaction to fire tests for building products. Conditioning procedures and general rules for selection of substrates.***

The samples remained in a conditioning chamber at 23 ± 2 °C and at $50 \pm 5\%$ relative humidity, until a constant weight was reached.

TESTS PERFORMED

A) SBI TEST IN ACCORDANCE WITH UNE EN 13823:2002

The test performed was the *Reaction to fire test for building materials. Building products excluding floorings exposed to the thermal attack by a single burning item* in accordance with standard UNE EN 13823:2002.

A test sample consisted of two vertical wings forming a right angle mounted on a sample carriage, and which were exposed to a burner situated at the bottom of the corner ("main burner"). The flames were obtained by propane gas combustion, injected through a bed of sand with an energy output of (30.7 ± 2.0) kW.

The behaviour of the sample was evaluated for a period of 21 minutes. The behaviour parameters are heat emission, smoke production, lateral flame spread and drop of flaming droplets and particles.

The measurements were obtained every 3 seconds in order to calculate the volume flow, the heat release rate (HRR) and the smoke production rate (SPR).

DETAILS OF THE SUBSTRATE USED AND SECURING METHOD

The standardised substrates must be in accordance with European Standard EN 13238:2001, taking into account the field of application and their final use.

The samples were placed in compliance with sections 5.2 and 5.3 of standard UNE EN 13823:2002 with regard to mounting the samples. With a T-shaped angle in order to ensure that the line of the corner formed by the plates does not widen during the test.

TERMS AND DEFINITIONS

The test makes it possible to evaluate the heat release and smoke production of the products subjected to the thermal attack of a propane gas burner.

These measurements form the basis for determining the following indices:

FIGRA_{0.2 MJ (W/S)} AND FIGRA_{0.4 MJ (W/S)}

Defined as the maximum value of the quotient of the speed of heat release from the sample and the instant at which it started, using a heat release threshold of 0.2 MJ and 0.4 MJ respectively.

THR_{600 s (MJ)}

Defined as the total amount of heat released from the sample in the first 600 s from the initial exposure to the main burner.

TSP_{600 s (MJ)}

Defined as the total smoke production from the sample in the first 600 s from the initial exposure to the flames of the main burner.

SMOGRA

Defined as the smoke production rate. The maximum value of the quotient of the speed of smoke production from the sample and the time during which it has been produced.

LFS

Defined as the lateral flame spread along the wing of the sample.

DROP_{T≤10 s} AND DROP_{T>10 s}

Defined as the drop of the flaming droplets/particles during the first 600 s of the testing period which continue burning once they have dropped for no more than 10 s and more than 10 s respectively.

TEST RESULTS

SPECIMEN	THR ₆₀₀ (MJ)	FIGRA _{0.2 MJ} (W/s)	FIGRA _{0.4 MJ} (W/s)	TSP _{600 s} (m ²)	SMOGRA (m ² /s ²)	LFS	DROP T≤10s	DROP t>10s
1	2.01	122.30	74.81	159.99	33.42	< to the edge	No	No
2	2.01	159.96	122.58	161.65	34.20	< to the edge	No	No
3	1.15	49.86	37.94	138.78	24.44	< to the edge	No	No
Average	1.72	110.71	78.44	153.47	30.69	< to the edge	No	No

N.B.: "The results of the test correspond to the behaviour of the test samples of a product, under the conditions pertinent to the test. They are not intended to constitute the only criterion for evaluating the potential fire risk that may be incurred by the use of the product".

The graphs corresponding to the indices relating to heat release and smoke production are attached in the appendices.

OBSERVATIONS

The coating cracked.

The sample became burned in the area of the burner.

The following data were recorded:

Maximum distance charred at a height of 500 mm from the lower edge:

Specimen 1 (mm): 180

Specimen 2 (mm): 160

Specimen 3 (mm): 160

Maximum distance charred at a height of 1000 mm from the lower edge:

Specimen 1 (mm): 100

Specimen 2 (mm): 80

Specimen 3 (mm): 70

B) IGNITABILITY TEST IN ACCORDANCE WITH UNE EN ISO 11925-2:2002

The test requested was the *Reaction to fire test for building materials. Ignitability of building products subjected to direct impingement of flame. Part 2: Single-flame source test* in accordance with standard UNE EN ISO 11925-2:2002.

Each sample consisted of a piece measuring (250 x 90 x 11) mm, placed on a U-shaped double frame made of stainless steel and hung vertically, so that the lower surface of the sample was directly exposed to the flame, along its central line and its edges.

Some burner spacers were used to bring the flame to a distance of 16 mm to expose the edge of the sample and of 5 mm to expose the surface.

The flame must be around 20 mm in height.

- The sample was exposed to the flame on the surface for a period of 30 seconds, on the central line at 40 mm above the lower edge.

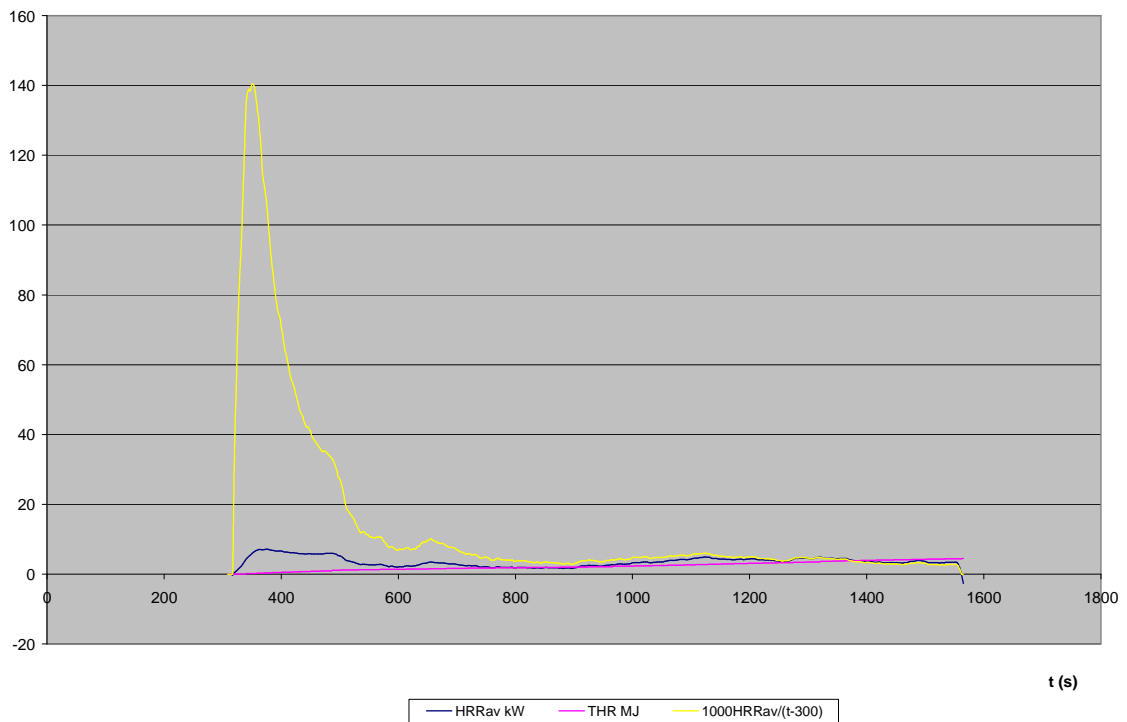
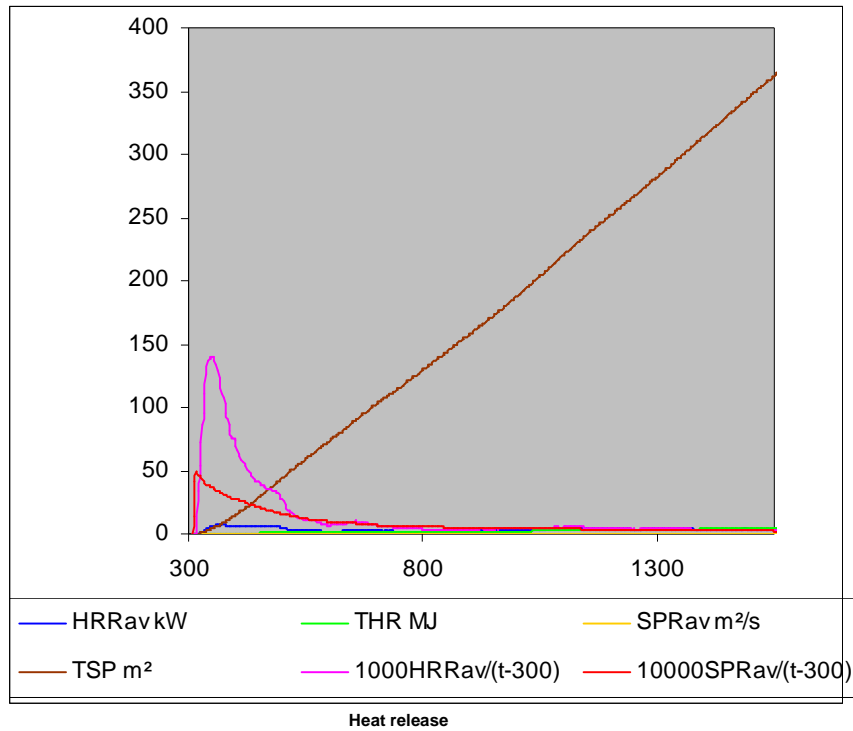
A.- SURFACE

SPECIMEN		Sample ignition	Flame spread at 150 mm (Fs)	Time at which it is reached <u>F_s</u>	Filter paper ignition
Longitudinal	1	No	—	—	No
	2	No	—	—	No
	3	No	—	—	No
Transversal	4	No	—	—	No
	5	No	—	—	No
	6	No	—	—	No

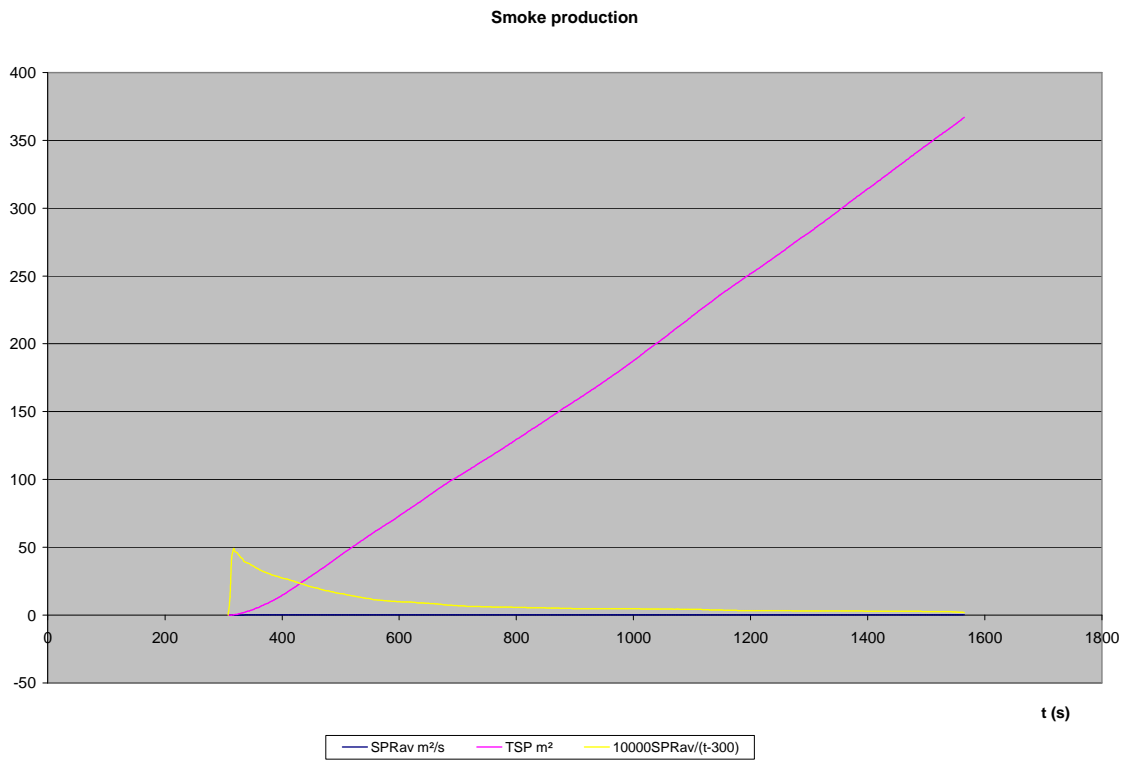
Observations: Darkening was observed in the area to which the flame was applied. There was no ignition or drop.

APPENDICES

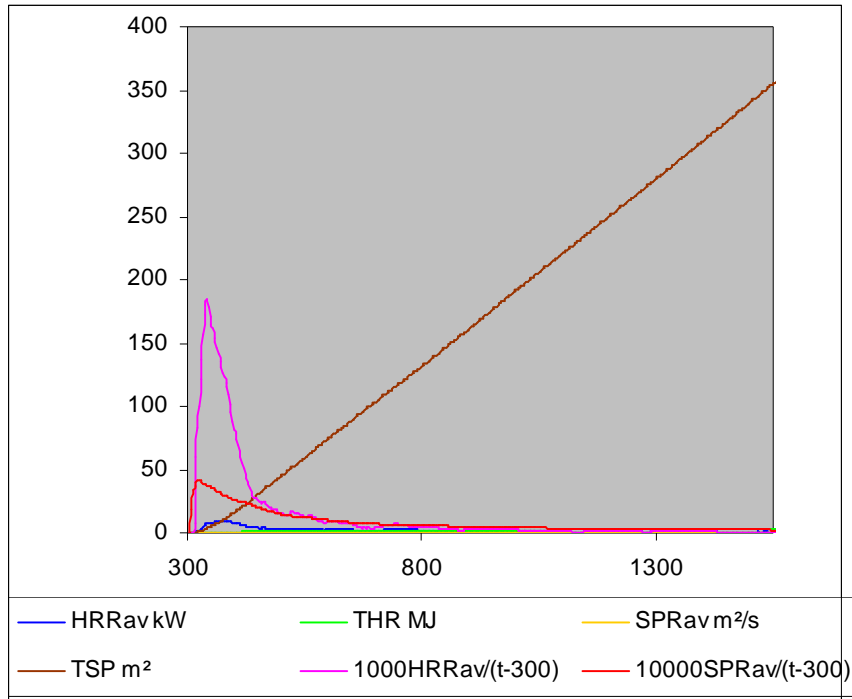
Sample No. 1: Indices relating to heat release



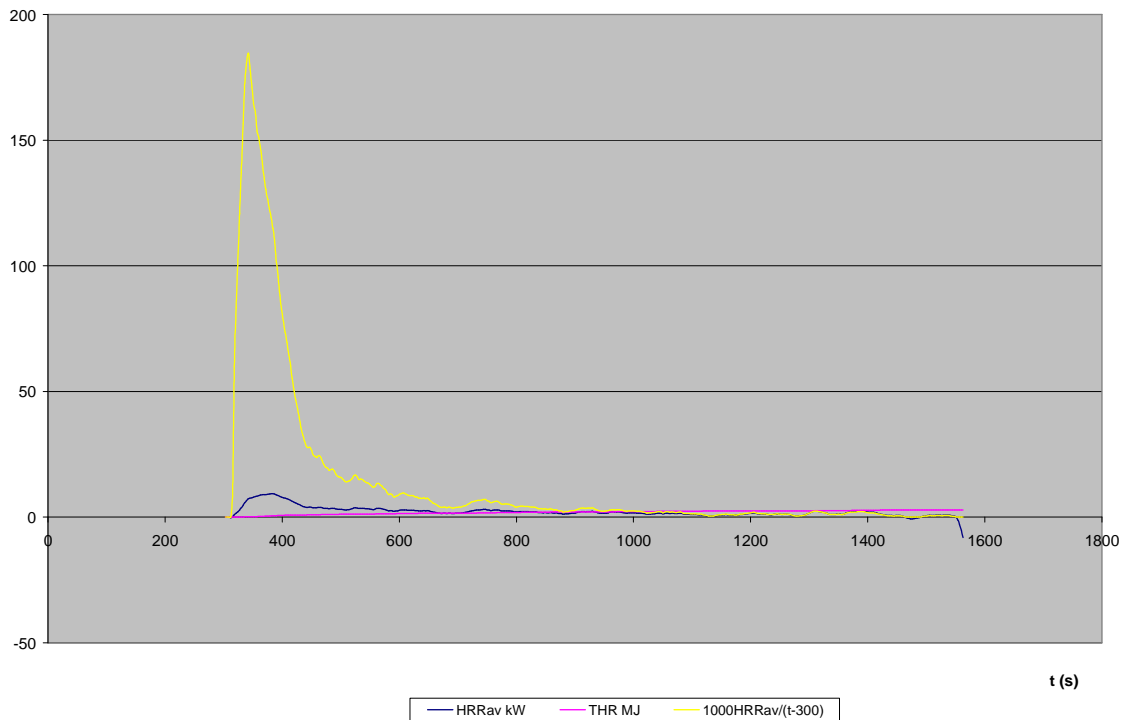
Sample No. 1: Indices relating to smoke production



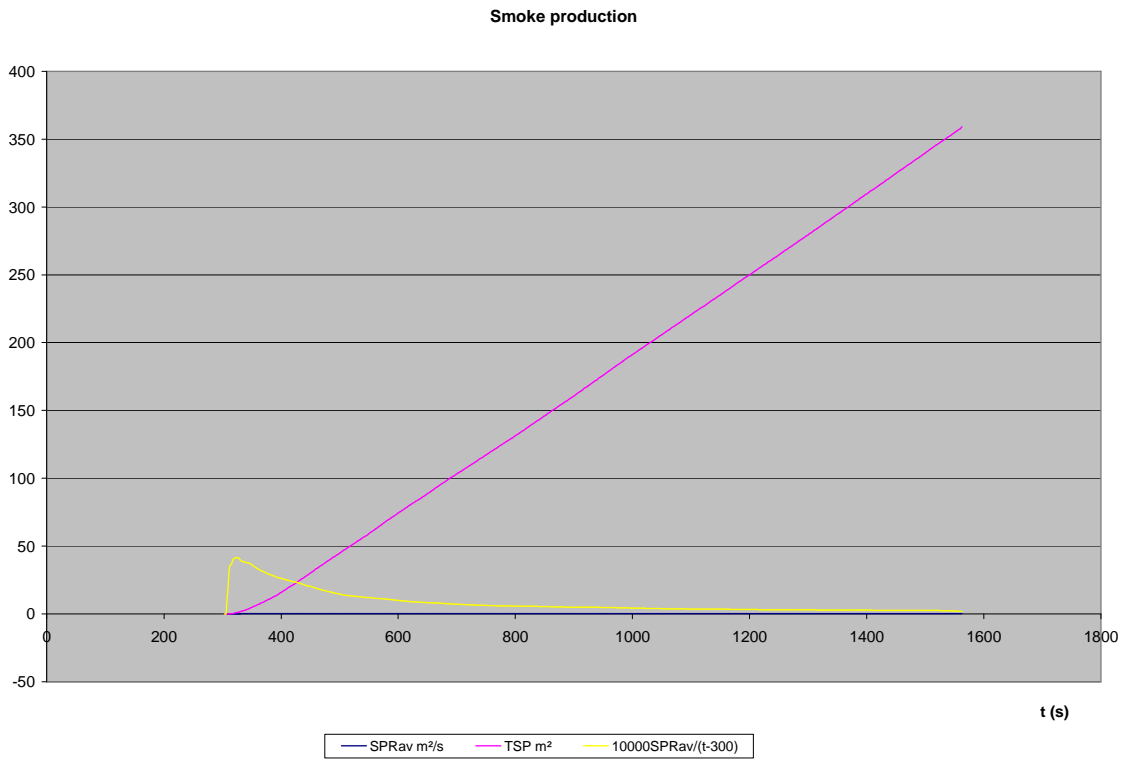
Sample No. 2: Indices relating to heat release



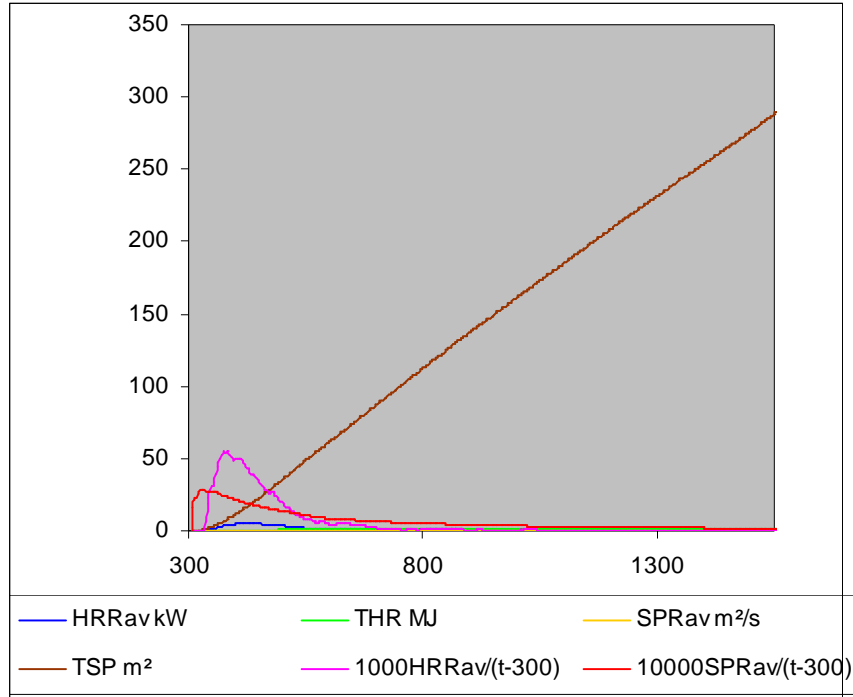
Heat release



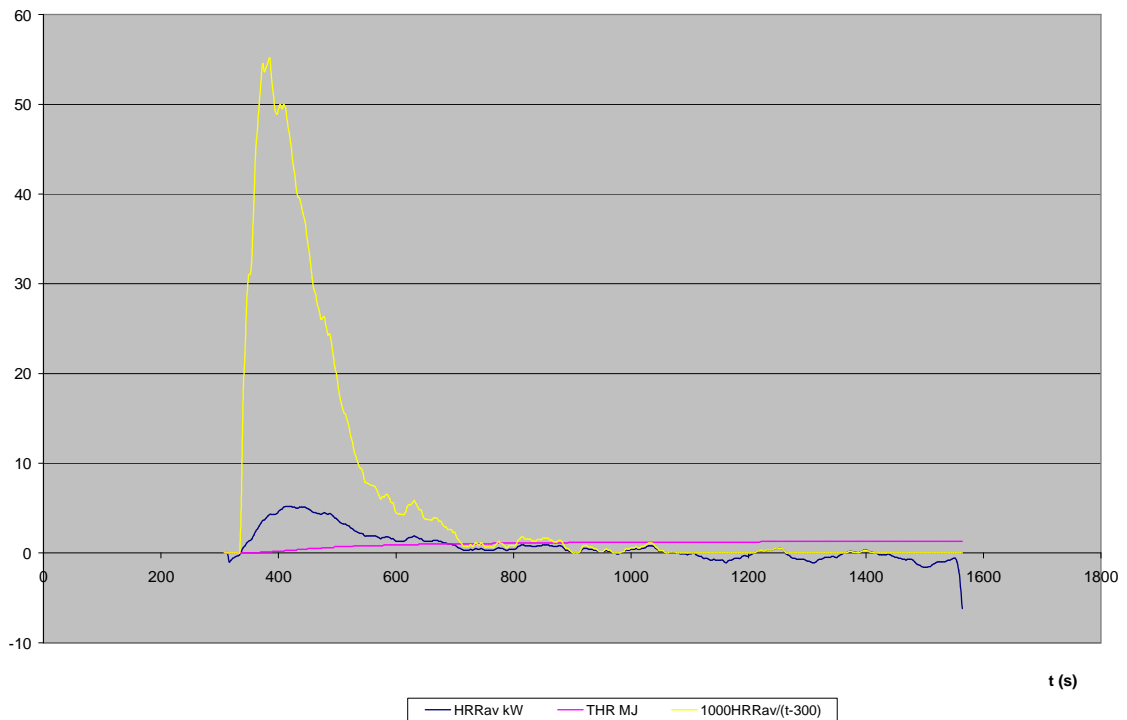
Sample No. 2: Indices relating to smoke production



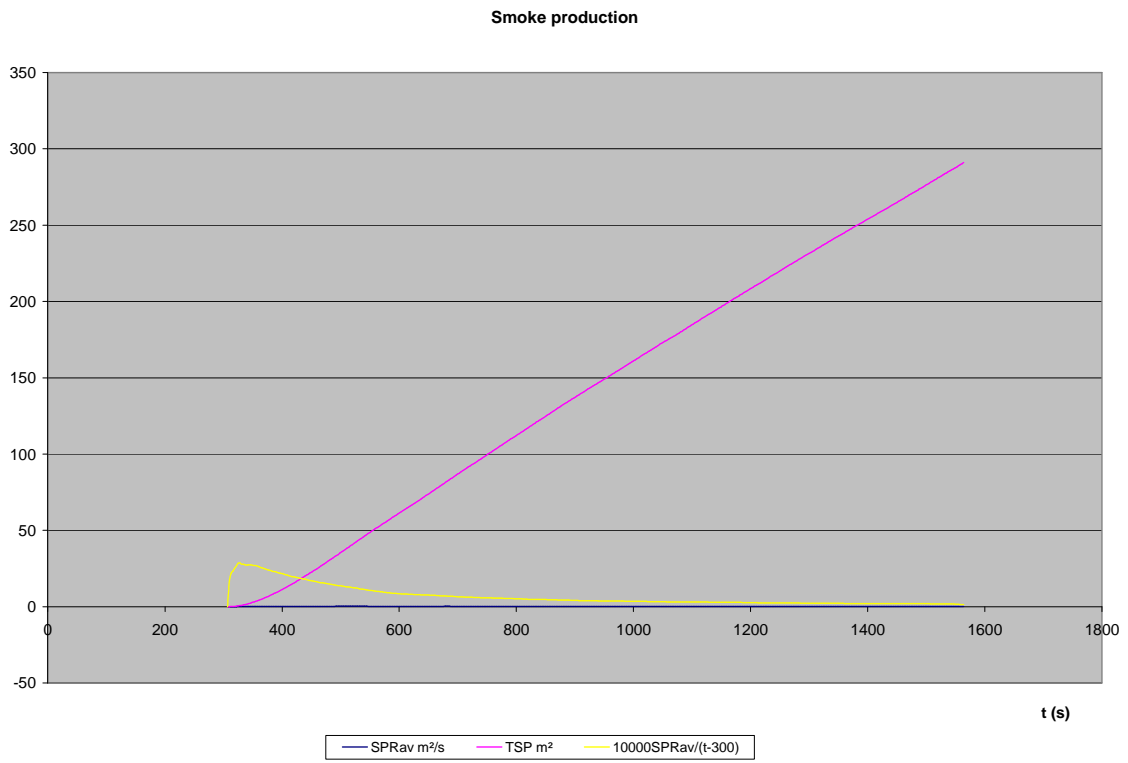
Sample No. 3: Indices relating to heat release



Heat release



Sample No.3: Indices relating to smoke production



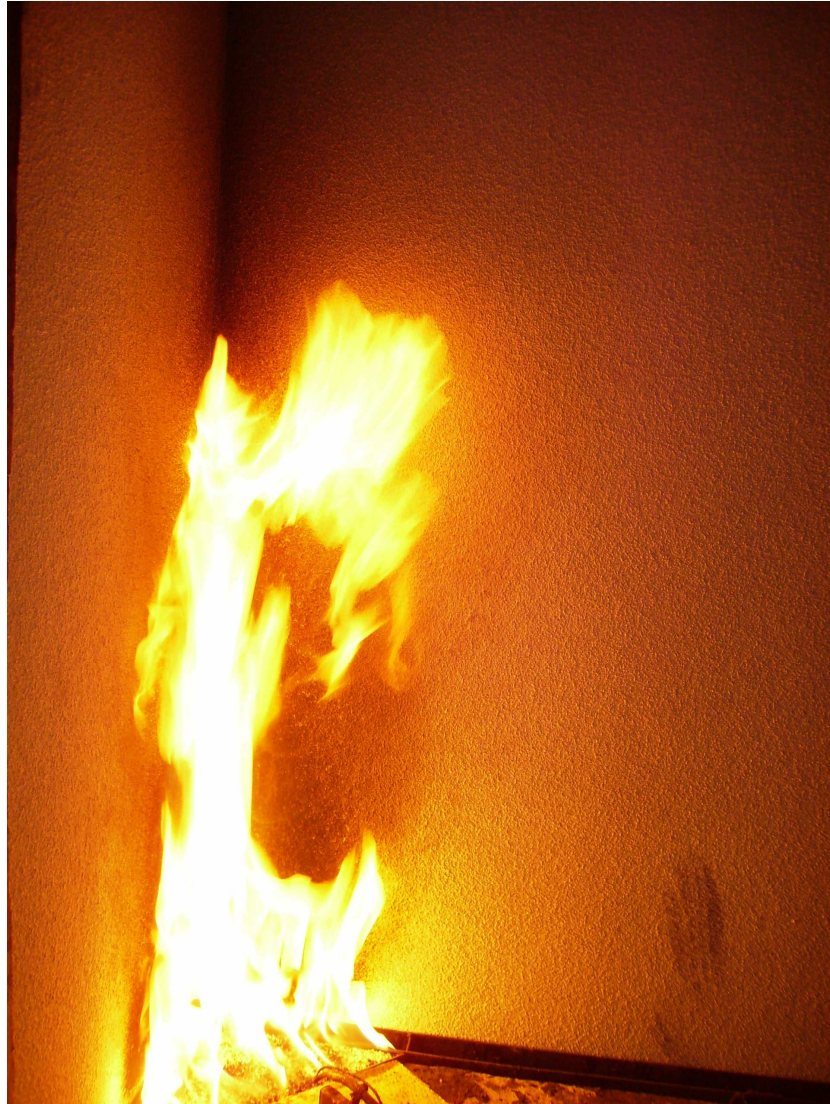
PHOTOGRAPHS OF THE SAMPLE



**Appearance of the sample before the SBI test (short wing)
in accordance with UNE-EN 13823:2002**



**Appearance of the sample before the SBI test (long wing)
in accordance with UNE-EN 13823:2002**



**Appearance of the sample during the SBI test
in accordance with UNE-EN 13823:2002**



**Appearance of the sample after the SBI test
in accordance with UNE-EN 13823:2002**



**Appearance of the sample after the ignitability test
in accordance with UNE-EN ISO 11925-2:2002**

TECHNICAL DATA SHEET (supplied by the manufacturer)



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Revisión: 1

FICHA TÉCNICA

VIPEQ

DESCRIPCIÓN

PRODUCTO AISLANTE TERMICO-ACUSTICO CON FUNCIÓN DECORATIVA

CARACTERÍSTICAS

VIPEQ-F08 es una mezcla de partículas de corcho seleccionadas, con diferentes tipos de resinas en base agua, cargas minerales, estabilizantes y aditivos varios.

ESPECIFICACIONES

Aspecto	Producto pastoso
Color	Natural Blanco Carta de colores
Densidad	0,5-0,7 g/cm ³

APLICACIONES

VIPEQ-F08 tiene buena adherencia sobre la mayoría de materiales (mortero, metal,madera,P.V.C.,polietileno expandido,etc.) y es idóneo para:

- Revestimiento de fachadas (decorándolas y aislándolas térmicamente).
- Impermeabilización de cubiertas de todo tipo (tela asfáltica, chapa, uralita), aportando en la misma aplicación un aislamiento térmico.
- Decoración de interiores y corrección acústica de locales.

Y un largo etcétera que convierten a VIPEQ-F08 en un material único.

MODO DE EMPLEO

La forma de aplicación puede ser manual, con herramienta convencional (llana,espátula);o mecánica , mediante proyección con máquina.

Secado al tacto.....	30 minutos (Temperatura ambiente 20°C)
Secado total.....	12-24 horas (Capa de 3-8 mm)
Rendimiento.....	1,2-1,5 kg/m ² (variable en espesor)
Temperatura de aplicación.....	-2°C y +45°C

RECOMENDACIONES

El soporte debe estar limpio, exento de polvo y seco.

ALMACENAMIENTO

El producto no debe ser expuesto a la acción directa del sol ni a temperaturas superiores a 45 °C ni menores de -2°C.

PRESENTACIÓN

Envases de 12 kg.

FRASES R/S Y SÍMBOLOS DE RIESGO

S2	Manténgase alejado de los niños.
S7	Mantener el envase bien cerrado.

La información y recomendaciones indicados en esta hoja técnica corresponden a nuestros conocimientos actuales, pruebas de laboratorio y experiencias habituales. Por tal motivo, nuestra garantía se limita a la calidad del producto suministrado. Esta empresa no asumirá responsabilidades derivadas del mal uso de nuestros productos.