

Novo/New <input checked="" type="checkbox"/>	Raenvio/Forward <input type="checkbox"/>	Data/Date: 2002-03-06	N/ref.: 056/JR	Nº Pg.: 1/7
Para/To:	Corticeira Amorim Indústria – Ex.mo Sr. Eng.º Hugo Borrego			Fax nº: 22 747 53 00
De/From:	INEGI – LFF – João Rodrigues			Fax nº: 22 952 73 52
Assunto/Subject:	Ensaio de reacção ao fogo			

Ex.mo Senhor,

Anexo relatório dos ensaios do material BL 25

Com os meus melhores cumprimentos,

  
João Rodrigues

## TEST REPORT

**Customer:** Corticeira Amorim Indústria, S.A.

**Address:** Rua Meladas, 260  
4535 Lourosa  
Portugal

**Request:** Fire Reaction and Smoke Classification According French Standards

**Material:** Agglomerate cork with reference BL 25

**Request Reference:** E-mail

**Request Date:** 2002-February-07

**Reception Date:** 2002-February-08

**Test Date:**

Fire Rection: 2002-February-19  
Smoke Density: 2002-February-20  
Gas Toxicity: 2002-March-04/05

**Report:** 8/LFF/02

**Note:** The tests market with \* are within the accreditation scope

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The presented results refer exclusively to tested specimens.

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## 1 – Fire Reaction Classification \*

### 1.1 - Scope

The tests reported concern the determination of the fire reaction class for sheets of agglomerate cork with reference *BL 25*, to be used as a coating material

### 1.2 - Methodology

The tests were performed as indicated in the NF P 92-501 standard method, issued on December 1995. The classification method was that of the standard FD P92-507 of September 1997.

### 1.3 - Specimens

The specimens were prepared by the client and had the following dimensions:

Specimen	Length/mm	Width/mm	Thickness/mm	Mass/g
8/LFF/02/1	402	300	5.04	215.2
8/LFF/02/2	401	300	5.07	220.3
8/LFF/02/3	402	300	5.07	208.5
8/LFF/02/4	402	300	5.11	209.0

Before being tested the specimens were conditioned at least 265 hours at  $23 \pm 2$  °C and  $50 \pm 5$  % relative humidity.

#### 1.4 - Results and classification

The tests performed on the épiradiateur produced the following results:

Provete	8/LFF/ 02/1	8/LFF/ 02/2	8/LFF/ 02/3	8/LFF/ 02/4
Ignition time on lower face ( $t_{i1}/s$ )	34	56	58	28
Extinction of flames on lower face ( $e_1/s$ )	272	347	217	209
Ignition time on upper face ( $t_{i2}/s$ )	140	159	136	145
Extinction of flames on upper face ( $e_2/s$ )	286	367	236	269
Total length of flames ( $\Sigma h/cm$ )	141	227	102	122
Combustion time ( $\Delta T/s$ )	252	311	178	213
Classification Index ( $q$ )	26.12	22.99	13.18	29.85

<b>Average Classification Index (&lt;math&gt;\langle q \rangle&lt;/math&gt;)</b>	<b>23.0</b>
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There was no detection of fusion with dripping during the course of the tests. In view of these results the material must be classified as **M3**.

## 2 – Smoke Density Generated by Material

### 2.1 - Scope

The tests reported concern the determination of the specific optical density generated by sheets of agglomerate cork with reference *BL 25*, to be used as a coating material

The presented results refer exclusively to tested specimens.

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## 2.2 - Methodology

The tests were performed as indicated in the NF X 10-702 standard method, issued on November 1995.

## 2.3 - Specimens

The specimens were prepared by this laboratory and had the following dimensions:

Specimen	Length/mm	Width/mm	Thickness/mm	Mass/g
8/LFF/02/5	76.09	76.01	5.03	10.2
8/LFF/02/6	76.02	75.98	5.08	9.8
8/LFF/02/7	76.07	76.01	5.07	9.6
8/LFF/02/8	76.00	76.03	5.04	10.3

Before being tested the specimens were conditioned at least 289 hours at  $23 \pm 2$  °C and  $50 \pm 5$  % relative humidity.

## 2.4 - Results

The tests performed on the smoke box produced the following results:

Specimen	8/LFF/02/5	8/LFF/02/6	8/LFF/02/7	8/LFF/02/8	Average
Ignition Mode	Non-Flaming	Flaming	Flaming	Flaming	-----
VOF4	52	329	307	309	315
Dm	164	338	302	321	320

The presented results refer exclusively to tested specimens.

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### 3 – Gas Toxicity Generated by Material

#### 3.1 - Scope

The tests reported concern the determination of the gas toxicity generated by sheets of agglomerate cork with reference *BL 25*, to be used as a coating material

#### 3.2 - Methodology

The tests were performed as indicated in the NF X 70-100 standard method, issued on June 1986. The classification method was that of the standard NF F 16-101 of October 1988.

#### 3.3 - Specimens

The specimens were prepared by this laboratory and had the following dimensions:

Specimen	8/LFF/02/9	8/LFF/02/10	8/LFF/02/11
Mass /g	0.6739	0.6515	0.6569

Before being tested the specimens were conditioned at least 289 hours at  $23 \pm 2$  °C and  $50 \pm 5$  % relative humidity.

#### 3.4 – Lassaigne Test

Lassaigne Test	Result
HCl	Negative
HBr	Negative
HCN	Negative
HF	Negative
SO2	Negative

The presented results refer exclusively to tested specimens.

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### 3.5 - Results

The tests performed produced the following results:

Specimen	8/LFF/02/9	8/LFF/02/10	8/LFF/02/11	Average
CO <sub>2</sub> (mg / g)	1338.8	1399.0	1386.6	1374.8
CO (mg / g)	190.7	205.2	200.2	198.7

Toxicity index (ITC)	12.9 m <sup>3</sup> / g
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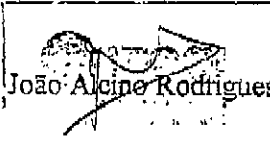
### 3.6 - Classification

VOF4 / 30	Dm / 100	ITC / 2	IF
10.5	3.2	6.4	20.1

In view of these results the material must be classified as **F2**.

Porto, March 05, 2002.

Technical and Laboratory Manager.

  
 João Alcino Rodrigues

The presented results refer exclusively to tested specimens.

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