

Bellaterra: 25<sup>th</sup> January, 2012  
File: **12/4368-30**  
Petitioner's reference: **MACTAC EUROPE, S.A. ENGLISH VERSION**  
Pol. Industrial Pedrosa  
C/ Montserrat Roig, 16-18  
08908 L'HOSPITALET DE LLOBREGAT  
(Barcelona)



## TEST REPORT

Date Sample Received: 2012-01-09  
Date Testing Performed: Start: 2012-01-10  
End: 2012-01-12

### OBJECT OF THE TEST

Determination of the fire reaction of a sample, based on the UNE 23.727-90 Standard: «Fire reaction tests of construction materials. - Classification of the materials used in construction. »

### CHARACTERISTICS OF THE SAMPLE

Some metallic sheets with an orange adhesive film applied in the front side, approximately 0.6 mm total thick, were received by the petitioner with the following indications contained in the technical specifications held by this Laboratory:

« Reference of the sample: MACAL-9700 PRO. Flexible vinyl film with permanent adhesive. Thickness: 80 µm of film and 35 µm of acrylic adhesive. Appearance: Smooth. »

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**TEST REQUESTED**

Fire reaction test applicable for the determination of the classification in compliance with the UNE 23.727-90 Standard.

**RESULTS**

The samples remained in a conditioning chamber at 23°C ± 3°C, and at 50% ± 10% relative humidity, and achieved a constant weight (± 2%).

**Radiation test (UNE 23721-90)**

Environmental conditions: 23 °C y 55 % HR.

Samples	I	II	III	IV	AVERAGE
<b>i) Flammability index</b>	0	0	0	0	0
<b>Uncertainty (k=2)</b>	Not applicable				
<b>s) Flame development index</b>	0	0	0	0	0
<b>Uncertainty (k=2)</b>	Not applicable				
<b>h) Maximum flame length index</b>	0	0	0	0	0
<b>Uncertainty (k=2)</b>	Not applicable				
<b>c) Combustibility index</b>	< 1	< 1	< 1	< 1	< 1
<b>Uncertainty (k=2)</b>	The conformity has declared for the criterion of inclusion with an uncertainty of ± 0,03				

During the test, neither fall of drops or material was observed.

**Classification of the samples presented: M. 1**

**This classification only can be considered to be valid when the adhesive film is applied on substrate similar to the one used in the present Test Report and with the indicated thickness.**

Fire Laboratory Responsible  
LGAI Technological Center S.A.

Fire Reaction Responsible  
LGAI Technological Center S.A.

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The results refer exclusively to the samples tested and at the time and conditions indicated.

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The expanded uncertainty stated is based on a typical uncertainty multiplied by a coverage factor,  $k=2$  which, for a normal distribution, provide a reliability level of approximately 95%.

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Applus+ guarantees that this task has been carried out in compliance with the requirements of our Quality and Sustainability System, and furthermore, that the contractual terms and legal regulations have been complied with.

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In the framework of our improvement program, we would appreciate any comment you may deem appropriate. These should be addressed to the manager who signs this document, or to the Quality Director of Applus+, at the following address: [satisfaccion.cliente@appluscorp.com](mailto:satisfaccion.cliente@appluscorp.com)

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In the event of litigation, the Spanish version will be valid

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