

TEST REPORT TRANSLATION

CLIENT: **COMPOSITES GUREA, S.A.**

CONTACT PERSON: **FERNANDO ENCIO**

ADDRESS: **Zalain Auza 13
31780 VERA DE BIDASOA**

TESTED MATERIAL:	COMPOSITE BOARD
PURPOSE OF THE REQUEST:	ESTABLISHMENT OF THE FORMALDYDE CONTENT

RECEIPT DATE: **18.09.2001**

TEST BEGINNING DATE: **18.09.2001**

TEST END DATE: **24.09.2001**

Total number of pages

4

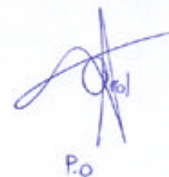
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The results of the tests can only be applied to the material received and tested in this Research Centre on **18.09.2001**

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FEATURES OF THE SAMPLES

On 18.09.01, CIDEMCO received a sample of a composite from the company “**COMPOSITES GUREA, S.A.**” with reference PARKLEX 1000. Said composite is composed of a decorative wooden sheet surface covered with a phenolic film, by a strut made of Kraft paper fibres and by a back. All the parts were impregnated with phenol-formaldehyde resin. The parts were (280 x 300 x 7) mm in size approximately.

TEST REQUESTED

The test requested for the sample sent was:

- ◆ **“Panels made of wood. Establishment of the formaldehyde content. Method of extraction known as the perforator,** applying the **UNE EN 120:1994** standard.
- ◆ **Classification of the result** in accordance with the **UNE EN 312-1:1997** standard.

TEST CARRIED OUT

The test tubes required to carry out the tests were obtained from t .0he part received.

The test was carried out as stated under the aforementioned standard, on 18.09.01.

To show that the “**Establishment of the formaldehyde content according to the perforator methods**” is based on the extraction of formaldehyde from the test tubes by using boiling toluene, this then being transferred to de-mineralised water. The **formaldehyde contained in the watery solution is photometrically established using the acetyl-acetone method.**

The size of the test tubes taken were (25 x 25 x 7,7) mm of the panel.

The **humidity content** of each sample was calculated by drying on a stove until reaching an anhydride state of $103^{\circ}\text{C} \pm 1^{\circ}\text{C}$, according to the methodology described in the EN 322:1994 standard.

RESULTS

Perforator value

The results obtained were as follows:

Test tube No.	Weight of sample (g)	Value measured (mg/100 g t.s*)	(*) Correction factor $F=-0.133H+1.86$	Value corrected (mg/100 g t.s*)
1	104.2	0.6	1.5	0.9
2	107.4	0.6	1.5	0.9
3	101.04	0.6	1.5	0.9
Average divergence				0
Average value (mg/100 g t.s*)				0.9

t.s.*: Dry panel

Humidity of the panel: 3%

V_{pi} = individual drilling

Date of manufacture of the panel: Unknown

Date on which the samples were taken: 18.09.01

(*) According to the UNE EN 312-1:1997 standard, perforator values refer to a content of material humidity of 6.5%. In the case of panels with different humidity content (ranging from $3\% \leq H \leq 10\%$), perforator value must be multiplied by an F factor.

The panel tested belongs to class 1, taking into account that the formaldehyde value obtained is lower than 8 mg/100 g of the panel, as specified in the UNE EN 312-1:1997 standard entitled “*Particle panels. Specifications. Part 1: General specifications for all types of panel.*”

NOTE:

The emission of formaldehyde from the panel is a complex phenomenon.

For any given panel, the test result depends on age, ageing conditions and humidity content, etc. at the time of carrying out the test.

The “perforator value” established using the method described in the EN 120 standard is defined as the “Content of formaldehyde of the panel being tested.”

The results obtained therefore depend on the specific conditions of the panel at the time of testing.

There does not necessarily exist any correlation between the perforator value and the emission of formaldehyde from the panel.