

Industrial Estate Valdeconsejo, Aneto St., 8-A, 50410  
Cuarte de Huerva (Zaragoza)

## REPORT 2023/5328

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# TESTS ON PREFABRICATED BOARDS

<b>• CLIENT</b>
- Name: ANDARAGON, S.L.U. - Address: Industrial Estate Las Norias, 19-A, Muel (Zaragoza)
<b>• QUOTATION</b>
- Name: TESTS ON PREFABRICATED BOARDS - Quotation No.: 1418
<b>• SPECIMENS</b>
- Specimen reference: 5328 - Date of entry: 26/05/2023
<b>• TEST CARRIED OUT</b>
- Compressive strength - Date of test: 13/06/2023
<b>• STANDARDS USED</b>
- UNE-EN 12467. Flat boards of fibre-reinforced concrete. Product specification and test methods. - UNE EN 13892-2. Flexural and compressive strength of mortars for continuous screeds.

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## **1.- PRECEDENTS**

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The applicant provides the laboratory with samples of a TABIHAUS prefabricated panel with one side measuring 110X110X22 mm to carry out a compressive strength test in a vertical position.

The test panel consists of an 8 mm TABIHAUS panel and a 22 mm extruded polystyrene (XPS) core.

**TABIHAUS® Panel:** *Composed of 8 mm TABIHAUS® board, composed of epsom salt reinforced with double glass fibre mesh, natural longitudinal fibres dispersed in orientation, spherical foam particles, retardants, and liquid waterproofing, adhered to high density XPS (XPS-EN- 13164-T3-CS(10/Y)300 DS(70,90)), by means of the manufacturing process of ANDARAGÓN S.L.U., with bicomponent glues, and double pressing in vacuum and mechanical pressure, in a controlled process in air-conditioned rooms - temperature and humidity-.*

## **2.- COMPRESSIVE STRENGTH**

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### **2.1.- Test Methodology**

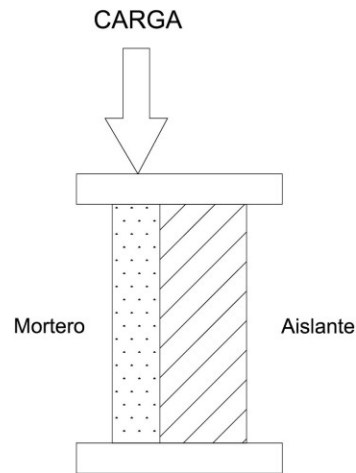
Before carrying out the test, the samples are conditioned and kept in laboratory conditions for 7-14 days.

Four specimens of suitable dimensions are prepared for the test.

The specimens are placed in such a way that the load is applied to the narrow side of the specimens.

The load is applied at a constant rate of 10 kg/s until the specimen ruptures.

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*Charging device*

The breaking strain, in megapascals, is calculated by the following expression:

$$\sigma_m = \frac{F_m}{A}$$

Where

F<sub>m</sub> is the ultimate load, in newtons.

A is the section of the specimen in the plane of loading, in mm<sup>2</sup>.

The sample value is calculated as the arithmetic mean of the values of the specimens tested.

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**2.2.- Results obtained**


Tester	Dimensions (mm)			Load (kg)	Compression R. (MPa)
	Length	Total width	Board width		
1	40	22,5	8	238	7,3
2	40	22,5	8	257	7,9
3	40	22,5	8	245	7,5
4	40	22,5	8	250	7,7
Average					<b>7,6</b>



Readiness and testing

For the calculation of compressive strength, the thickness of the board, which is the resistant part of the system, has been considered as the width.

Zaragoza, 15th June 2023

  
**Head of Materials Testing**

Gustavo Royo Lantarón  
Graduate in Geological Sciences



  
**Approval of the Laboratory Director**

Arantxa Mendizábal Aguirre  
Industrial Engineer