

Bellaterra: October 09,2018

File Number: **18/17682-1380**

Petitioner's Reference: **GARDENIA QUÍMICA, S.A.**
 Avda. Real de Extremadura, nº 25
 12200 ONDA
 (Castellón)



TEST REPORT

Sample Receipt Date: 2018-09-03

Test Completion Date: 2018-09-18 al 2018-09-20

Material Received:

A sample of cork projected into several layers was received from the petitioner, with the same product and different pigmentation (grey and beige, respectively) and with the following references and measures according to the petitioners.

«Product Commercial Reference : ISOLATE

Waterproof membrane, insulation, thermal and acoustic-based resins of styrene, cast acrylic in emulsion aqueous, natural cork and other additives. Material isolate(cork), density 0.7 g/cm3 and rough-looking

Manufacturer:

Gardenia Química, S.A. Domicilio: Avda. Real de Extremadura, nº25 - 12200 Onda (Castellón). »

Identification of the Sample	Dimension of each plate (m)	Amount	No Show laboratory
ISOLATE	0,49 x 0,49 x 0,03	1	1380

Note: Add the last column to enter the number of the identification that the laboratory gives the sample.

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Photo n#1: Tested Sample

Requested Test

Determination of the conductivity of heat according to standard UNE-EN 12667:2002

Test Method

Test method conducted base on the standard UNE:EN 12667:2002 ' Building Materials. Determination of the heat resistance to thermal by the method of hot plate stored and the method of the meter of the heat flow. Products of high and medium resistance to thermal.

The conductivity of heat measured by using a single-sampled of hot plate dimensions 500 x 500 mm , with a measuring area of 150 x 150 mm, identify as a lambda-meter EP 500, with equipment n# 170-196. Reduces heat lose by wrapping the sample in the side walls with a material insulates. The temperature of the location that surrounds the equipment during the test is place in (23+5)c.

In this equipment the sample is mounted horizontally with downward flow. The position of the hot side of the samle is higher.

This result equipment has been verified on 2018-09-05 using the sample pattern ETAL_125_02_GLAS glass verified by the LGAI Technological Center S.A on 2013-01-11, with a record number 2013654.

Product standard applicable to the test sample, The client did not specify.

Conditioning of the Samples

The sample was conditioned before the test in a room conditioning, to maintain a constant mass at (23+2)c and (50+5)% relative humidity making heavy successive

Intervals of 24 hours until obtaining the constant weight according to standard test UNE NE 12667:2002

Density and Mass Changes

Δm_r : Relative change of mass for the material has been received due to drying.

Δm_c : Relative change of mass for the material has been received due to a process of conditioning process more complex.

Δm_w : Relative change of mass for the material before and after test.

ρ_c : Density of the material after a conditioning process more complex (until equilibrium with the atmosphere normal of the laboratory

Conditional Samples

Samples	Thickness (m)*		Δm_r **	Δm_c	Density ρ_c (Kg/m ³)***
1380	0,0281	Medido	0		829,2

* Thickness measured according to the test procedure.

**Not performed the drying in a stove so the $\Delta m_r=0$.

*** From the dimensions of the samples, the thickness indicated above and the mass of the conditioned sample.

Sample Tested

Sample	Δ Thickness (m) ****	Δm_w	Differences of Temperature (°C)	T ^a Average during Test (°C)
1380	0	0	15,0	10,0

**** No variation of the size of the sample is observed thickness is= 0.

The trail has been carried out by the operator Rafael Carreras.

RESULTS

Uncertainty Trial = $\pm 0,003 \text{ W/m}\cdot\text{K}$

Room Conditions: 23,5 °C y 62 % HR.

Samples		
1380		
Differences of Temperature (K)	T ^a Average during Test (°C)	Thickness of the Sample (m)
15,0	10,0	0,0281
Density of Heat Flow (W/m ²)	Thermal Resistance (m ² ·K/W)	Thermal Conductivity (W/m·K)
123,865	0,121	0,232

Head of the Department of Industrial Products
 LGAI Technological Center S.A. (APPLUS)

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 LGAI Technological Center S.A. (APPLUS)

The results relate only to the samples tested and at the time and the conditions set forth

The uncertainties expressed in this document correspond to the uncertainty expanded, obtained by multiplying the uncertainty typical of that measured by the coverage factor k=2 for a normal distribution, corresponds to a coverage probability of approximately 95%.

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