

REPORT 280/L DATE 05.06.2017

Laboratory	GFC Chimica S.r.l. Viale Marconi, 73 44122 Ferrara
Customer	A.T. MARMO SERVICE S.r.l. Via Belvedere, 14 20017 Rho (MI)
Samples identification ¹	28041701 – ECOTHERMO PAINT AIR INTERNI
Samples description	Waterborne paint
Date of receiving	28.04.2017
Analysis beginning (date)	02.05.2017
Analysis end (date)	31.05.2017
Contact	Dr. Alessandro Torretta

1 Introduction

GFC Chimica has examined, by order of A.T. MARMO SERVICE S.r.l. di Rho (MI), herein called as the customer, a sample of waterborne paint identified and described as reported in the table above.

As stated between the parties, GFC Chimica's laboratory has assessed the coating in order to determinate the resistance against fungal growth (method UNI EN 15457:2014). Test in subcontracting.

The sample was consigned to the laboratory by the customer.

2 Results

2.1 *Determination of the resistance against fungal growth*

The sample was applied, by brush in two layers, on special substrates of fiber glass paper, then dried in a climatic chamber at $T=23\pm 2^{\circ}\text{C}$ and $RH=50\pm 5\%$ for 7 days. The specimens were sterilized with UV irradiation for 24 hours and stored, separately, with the painted surface facing upwards, in Petri dishes containing Malt Agar as a culture medium. After preparation, the specimens were inoculated with a suspension of *Aspergillus niger*, *Cladosporium cladosporoides*, *Alternaria alternata*, *Penicillium purpurogenum* (10^6 cells/mL). Three replicates were performed.

Petri dishes were placed to incubate at $T=24\pm 2^{\circ}\text{C}$ for a period of 21 days after inoculation. After this period fungal development was observed.



¹The code 28041701 is an internal one of GFC Chimica used to mark the sample.
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The results are shown in the following table:

Suspension of fungi	Intensity of fungal growth
<i>Aspergillus niger</i> <i>Cladosporium cladosporoides</i> <i>Alternaria alternata</i> , <i>Penicillium purpurogenum</i>	1

Rating scale (see method UNI EN 15457:2014):

0 = no growth on the surface of the specimen

1 = $\leq 10\%$ of coated surface is covered by fungi

2 = greater than 10% and less than 30% of coated surface is covered by fungi

3 = greater than 30% but less than 50% of coated surface is covered by fungi


4 = $> 50\%$ up to 100% of coated surface is covered by fungi

Specified value < 4 = suitable

The test is positive because the fungal growth is much lower than the specified limit value.

In the picture below it is possible to observe the resistance of the sample to the fungal attack.



GFC Chimica Srl
L'Analista
Ing. Cristina Pocaterra


GFC Chimica Srl
Il Responsabile di laboratorio
Dr. Arlen Ferrari


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END OF THE REPORT