

REPORT 123/L DATE 28.04.2014

Laboratory	GFC Chimica S.r.l. Viale Marconi, 73 44122 Ferrara
Customer	NORD RESINE S.p.A. Via Fornace Vecchia, 79 31058 Susegana (TV)
Samples identification ¹	26031407 – NORPHEN 200 HCR Comp. A 26031408 – NORPHEN 200 HCR NF Comp. B
Samples description	Epoxy floor coating
Date of receiving	26.03.2014
Analysis beginning (date)	27.03.2014
Analysis end (date)	28.04.2014
Ref.	Sig. Stefano Martin

1 Introduction

GFC Chimica has examined a sample of 2K epoxy floor coating by order of NORD RESINE S.p.A. of Susegana (TV). The sample is identified and described as reported in the table above.

The sample is constituted by the following components:

– NORPHEN 200 HCR Comp. A

– NORPHEN 200 HCR NF Comp. B

(ratio of mixing: 2,1 parts in weight of NORPHEN 200 HCR Comp. A and 1 part in weight of NORPHEN 200 HCR NF Comp. B).

Both the components were consigned to the laboratory by NORD RESINE.

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 15457:2008). Test in subcontracting.

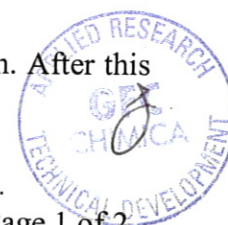
2 Results

2.1 Determination of the resistance against fungal growth

The sample was applied by brush in one layer, on special supports of fiber glass paper, then dried in a climatic chamber at $T = 23 \pm 2^\circ \text{C}$ and $\text{RH } 50 \pm 5\%$ 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 $24 \pm 2^\circ \text{C}$ for a period of 21 days after inoculation. After this period fungal development was observed.

¹The codes 26031407 and 26031408 are internal ones of GFC Chimica used to mark the samples.



The results obtained 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>	0

Rating scale (REF. UNI EN 15457:2008):

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

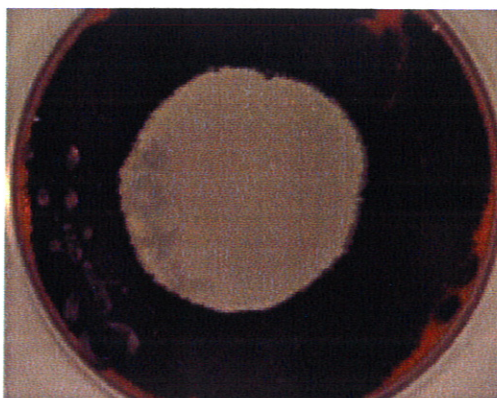
3 = greater than 30% but less than 50% of coated surface is covered by fungi

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

Specified value $<$ 4 = suitable

The test is positive. No fungal growth is present on the surface of the specimen

In the picture below it is possible to see the resistance of the sample against fungal growth.



No fungal growth on "NORPHEN 200 HCR NF"

GFC Chimica Srl
L'Analista
Ing. Cristina Pocaterra
Cristina Pocaterra

GFC Chimica Srl
Il Responsabile di laboratorio
Dr. Arlen Ferrari
Arlen Ferrari

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