

# IMSL

**INDUSTRIAL MICROBIOLOGICAL SERVICES LTD**

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**STUDY REPORT:** Determination of the Resistance of Samples against *Aspergillus Niger*.  
using a Zone of Inhibition Method.

**CLIENT:** Microban Europe Ltd,  
Point North,  
Hayes Way,  
Cannock  
Staffordshire  
WS12 2DD

Scott Bader

MBE 258

**REPORT NO:** IMSL 1013550.1A

**DATED:** 24<sup>th</sup> March 2010

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## 1 Introduction

This report details a study into the resistance of materials either with or without antimicrobial additive to fungal growth using an agar contact method.

## 2 Test Materials

Samples (ex Scott Bader) of the test material were supplied by Microban Europe Ltd. The samples were held at 20°C in the dark prior to testing.

## 3 Methods

Fungicidal activity was determined using an agar plate method based on AATCC 30 Part 3. Sub-samples of the material were placed onto the surface of agar plates and then inoculated with a suspension of spores of *Aspergillus niger*.

Replicate sub-samples were placed on the surface of individual malt extract agar plates. An aliquot (100 µl) of a suspension ( $> 10^5$  spores ml<sup>-1</sup>) of spores of *Aspergillus niger* was then spread over the surface of both the sub-sample and the surrounding media. These plates were then incubated for up to 4 days at 20°C. After incubation the appearance of the plates was recorded photographically.

**Table 1: Fungal Inoculum**

Species	Reference Number
<i>Aspergillus niger</i>	ATCC 6275

#### 4 Results / Discussion

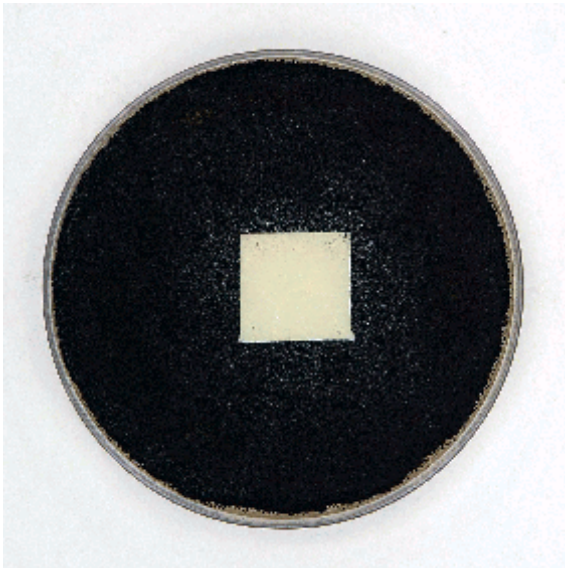
The results are shown as zone diameters and growth ratings in Table 1 below.

**Table 1: Results as Zones Free of Growth (Mean of 2 Replicates) and Growth Rating**

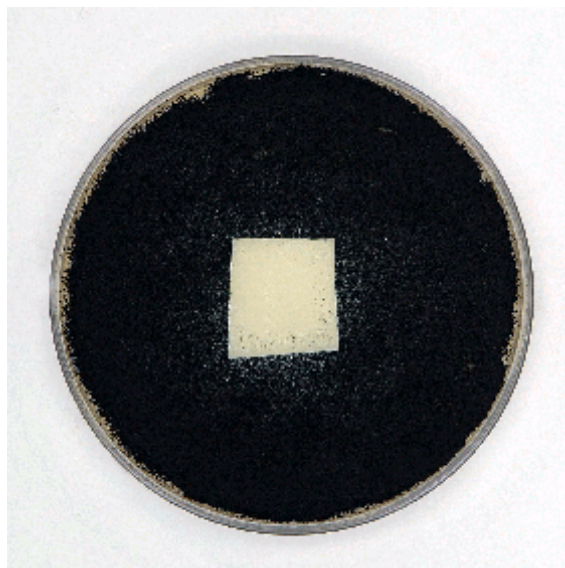
Coating	Average Zone (mm)	Rating
Gelcoat LS 97PA - White (Control)	0	0
Crystic LS 979PA Microban	0	0

**KEY** 0 = No Surface Growth , 1 = Trace to 1%, 2 = 1% - 10%, 3 = > 10% - 30%, 4 = > 30% - 70%, 5 = > 70%  
\* Growth under sample

**Plate 1: Gelcoat LS 97PA - White (Control)**



**Plate 2: Crystic LS 979PA Microban**



## **5 Raw Data**

The raw data for this study will be held in file IMSL 1013550 in the Archive of IMSL at Pale Lane, Hartley Wintney, Hants, RG27 8DH, UK for 6 years from the date of this report unless other specific instructions are given.

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