

AIFREE TEST

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CLIENT: AIRFREE, LDA.

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Serviços no âmbito da qualidade do ar interior, nomeadamente avaliações conforme legislação aplicável.

1. OBJECTIVE

The main objective of the test is to evaluate the efficiency of Airfree's patented TSS ceramic core in destroying microorganisms.

2. METHODOLOGY

The concept of the test is to measure the apparatus' efficiency in destroying airborne micro-organisms directly at the ceramic core air outlet employing the manufacturer's TSS – Thermodynamic Sterilization System. The Airfree unit provided by the manufacturer was opened allowing direct access to the ceramic core. An upside-down Petri dish was inserted in a sterilized plastic bag which was attached to the working ceramic core for 60 minutes.

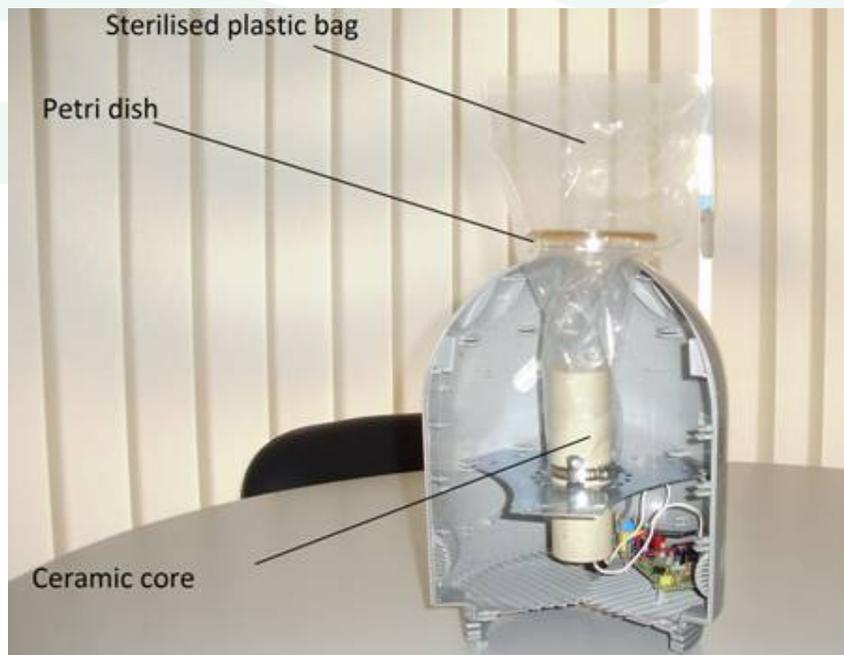


Fig.1- Apparatus

In order to perform the present study, the number of viable airborne fungi was quantified in the room chosen by Ambientális, at Ramada, with the air sterilizer switched off. On March 31st two Petri dishes were exposed before the test start-up (Test 1), thereafter the apparatus was switched on (Test 2).

Tab.1- Equipment, incubation and sampling method

Parameter	Sampling method	Culture means	Incubation temperature/time
Total fungi	Sedimentation	MEA (Malt Extract Agar)	26°C-5 days

Remarks: samples were duplicated. Result represents the arithmetic average of both readings.

3. RESULTS

3.1. MICROBIOLOGY

Tab.2- Total Fungi in air

Test	Exposure time	Sampling date	Total fungi (UFC/dish)
			Results
1 Air contamination in room before Airfree switched ON	1H	March 31, 2010	21
2 Air contamination measured at Airfree air outlet	1H	March 31, 2010	0

Remarks: Before the Airfree was switched on, air sampling was made nearby the apparatus air inlets. After the Airfree was switched on, the air sampling was taken at the ceramic core air outlet (inside the sterilized air bag).

4. CONCLUSION

The performed test indicates a 100% reduction of airborne fungal contamination, as described. We can therefore conclude that the TSS ceramic core was 100% efficient in destroying fungal/ mold contamination.

Ramada, April 29 , 2010



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Translation by Airfree, Ltd.