



DEPARTMENT OF MICROBIOLOGY

ALL INDIA INSTITUTE OF MEDICAL SCIENCES, JODHPUR

Hospital Infection Control Laboratory

OptiMaser machine cycle for disinfection of N95 mask was tested. Four different runs at different cycling conditions (different temperature and time) were done for disinfection of used N95 masks using biological indicator in the form of ampoules containing 10^6 spores of *Bacillus atrophaeus*. Details of Test Procedure are as follows-

Date of Run-18-04-2020

Biological Indicator-*Bacillus atrophaeus* (10^6 spores)

Expiry Date- 12/2020

Lot No. 4131

Incubation conditions: Ampoules containing 10^6 spores of *Bacillus atrophaeus* were incubated aerobically at 37°C for 48 hours.

Test Run Cycle	Temperature	Time duration	Biological Indicator	Test result
Cycle 1	100°C	20 minutes	Failure	Not Satisfactory
Cycle 2	70°C	10 minutes	Success	Satisfactory
Cycle 3	70°C	10 minutes	Success	Satisfactory
Cycle 4	70°C	10 minutes	Success	Satisfactory

Result:-

Test Run 1 was performed at 100°C for 20 minutes duration. Color change of biological indicator observed after 48 hours aerobic incubation at 37°C . The Result was Not Satisfactory.

Test Run 2, 3 and 4 were performed at 70°C for 10 minutes. No color change of biological indicator was observed after 48 hours aerobic incubation at 37°C . The result of cycles 2,3 and 4 was Satisfactory.

Inference:- OptiMaser cycle run at 70°C for 10 min was satisfactory for disinfection of N95 mask, tested by *Bacillus atrophaeus* indicator.

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