EFFICACY TESTS



SDD - STEAM DISINFECTION DEVICE COMPLIES WITH AFNOR NF T72-110 STANDARD*

The tests confirm the effectiveness of Polti Vaporetto MV's dry saturated steam for steam disinfection.

THE TESTS AND RESULTS ON EFFECTIVENESS ARE SHOWN BELOW

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Disinfectant effectiveness

Third party and independent laboratories

The products of the Polti Vaporetto MV family are SDD - Steam Disinfection Devices.

*The products of the Polti Vaporetto MV range have been tested in compliance with the standard AFNOR NF T72-110 - medical setting and have demonstrated virucidal, bactericidal, sporicidal, fungicidal, levurocidal and mouldicidal effects.

LIST OF TESTS:

18/03/2021 - **Bovine Coronavirus (BcoV)** - surrogate virus for SARS-related viruses (including SARS CoV-2) - STANDARD AFNOR NF T 72-110:2019 - CHELAB Srl Laboratory - a Mérieux NutriSciences Company - Resana (TV) - Italy

18/03/2021 - **Murine Norovirus** - STANDARD AFNOR NF T 72-110:2019 - CHELAB Srl Laboratory -

a Mérieux NutriSciences Company - Resana (TV) - Italy

18/03/2021 - Adenovirus - STANDARD AFNOR NF T 72-110:2019 - CHELAB Srl Laboratory -

a Mérieux NutriSciences Company - Resana (TV) - Italy

15/11/2020 - Pseudomonas aeruginosa - Report 20LA17706 - EcamRicert Srl - a Mérieux NutriSciences Company

15/11/2020 - Staphylococcus aureus - Report 20LA16367 - EcamRicert Srl - a Mérieux NutriSciences Company

15/11/2020 - Escherichia coli - Report 20LA17705 - EcamRicert Srl - a Mérieux NutriSciences Company

15/11/2020 - Enterococcus hirae - Report 20LA16368 - EcamRicert Srl - a Mérieux NutriSciences Company

15/11/2020 - **Bacillus subtilis** - Report 20LA16833 - EcamRicert Srl - a Mérieux NutriSciences Company

15/11/2020 - Candida albicans - Report 20LA16199 - EcamRicert Srl - a Mérieux NutriSciences Company

15/11/2020 - Aspergillus brasiliensis - Report 20LA17139 - EcamRicert Srl - a Mérieux NutriSciences Company

17/05/2013 - **Influenza Type A2** - Report R-302963.R0 - Gibraltar

07/05/2013 - Salmonella enterica - Report R-301601.R0 - Gibraltar

07/05/2013 - Klebsiella pneumoniae - Report R-301986.R0 - Gibraltar

07/05/2013 - **Pseudomonas aeruginosa** - Report R-301986.R0 - Gibraltar

07/05/2013 - **Staphylococcus aureus** - Report R-301601.R0 - Gibraltar

07/05/2013 - **Trichophyton mentagrophytes** - Report R-302390.R0 - Gibraltar

04/07/2003 - Coronavirus - Analysis A-207703 - Biomedco

04/07/2003 - Mycobacterium tuberculosis - Analysis A-207703 - Biomedco

04/07/2003 - Listeria monocytogenes - Analysis A-207703 - Biomedco

15/02/2002 - Staphylococcus aureus - Analysis PCI-02-2100202 - Biomedco

30/01/2002 - Salmonella - Analysis PCI-01B-040202 - Biomedco

30/01/2002 - Campylobacter - Analysis PCI-01C-040202 - Biomedco

30/01/2002 - Escherichia coli - Analysis PCI-01A-040202 - Biomedco

19/09/2000 - Clostridium - Analysis PCI-01B-220900 - Biomedco

19/09/2000 - Enterococcus vancomycin res - Analysis PCI-01C-220900 - Biomedco



Evaluation of the virucidal effectiveness (SARS-CoV2) of dry steam

The virucidal efficacy was assessed according to the **French regulation AFNOR NF T72-110: 2019** (Method of disinfection of surfaces by steam with or without contact - Determination of bactericidal, fungicidal, levurocidal, sporicidal and virucidal activity).

Eurofins Biolab Laboratory - Vimodrone (MI) - Italy

Considering that:

- The SARS-CoV2 virus according to the published information has similar heat-sensitive properties to other Coronaviruses;
- Thermosensitive viruses are completely deactivated in a few seconds at very high temperatures, for example from 150° to 160°C due to the heat and the deactivation speed for each log is minimal, quantifiable as about 0.1 seconds;
- Coronaviruses are completely deactivated within one minute at 80°C from the heat generated by dry steam and the log deactivation speed is approximately 10 seconds;
- The viral load of Coronavirus can be partially reduced within one minute at 65°C from the heat generated from dry steam;

It can be said that the steam treatment of Polti equipment must be considered effective in completely deactivating the SARS-CoV2 virus at a temperature of 80° C or higher.

With the very high temperatures reached by the compatible Polti Vaporetto MV models and combined with the Polti Sani System Kit, deactivation is effective in very short exposure times (a few seconds).

CHELAB Srl Laboratory - a Mérieux NutriSciences Company - Resana (TV) - Italy

According to the guidelines of the NF T72-110: 2019-03 standard, in the applied test conditions, the product in question "SDD" has a virucidal effect against Bovine Coronavirus * since the viral reduction of the tested strain is> 4 Log.



^{*} Bovine coronavirus is used as a surrogate virus for SARS-related viruses (including SARS CoV-2) as it belongs to the same genre as Betacoronavirus 1, with a similar morphology and size, but at a Bio Safety Level 2.

Acaricidal effectiveness

Cambridge University and Lyon Dermatological Hospital

Two prestigious institutions - Cambridge University and Lyon Dermatological Hospital have subjected Polti Vaporetto MV to different effectiveness tests.

The experiment was based on the comparison between Polti Vaporetto MV and normal vacuum cleaners and their ability to eliminate dust and scabies mites.

- ➤ CAMBRIDGE UNIVERSITY examined two carpets and two mattresses, artificially contaminated with live mites. A carpet and mattress were cleaned with a traditional vacuum cleaner, the other carpet and the other mattress with the Polti Vaporetto MV that eliminated:
 - **97% of the mites from the carpet and 98% from the mattress, with an 86% decrease in allergens.** The traditional vacuum cleaner, however, eliminated only 57% of mites and 46% of allergens.
- > LYON DERMATOLOGICAL HOSPITAL tested the effects of the Polti Vaporetto MV against scabies mites, which can be present on bedding and environments surrounding infected people.

The mites were eliminated after only 5 seconds of exposure to the powerful steam jet.

POLTI VAPORETTO MV: THE NATURAL WAY TO ELIMINATE MITES AND ALLERGENS

These results confirm that the steam generated by the Polti Vaporetto MV can not only reduce the number of live mites, but can also decrease the allergens produced by them, providing an extraordinary decontaminating action.

All for the benefit of our health and the prevention of allergies.

