

Validated, Certified, and Supported by Clinical Research

The UV Smart D25 disinfection system is the **first medically certified UV-C disinfection device** (with a class IIa CE marking) for non-invasive medical equipment.

The disinfection efficacy of the UV Smart D25 has been demonstrated and supported by numerous comprehensive studies conducted in clinical settings at academic medical centers (**University Medical Center Groningen, University Medical Center Amsterdam, and Radboud University Medical Center** in the Netherlands) and laboratories (**Eurofins and Streeklab Haarlem**, the Netherlands).

These comprehensive studies have shown that the UV Smart D25 is highly effective against the full spectrum of microorganisms, achieving at least log-4 reductions in microorganism counts in 25 seconds on the hard, non-porous surfaces of non-invasive medical devices. The UV Smart D25 was also able to achieve significant log reductions in methicillin-resistant ***Staphylococcus aureus***, ***Vancomycin-resistant enterococci (VRE)***, the family of Coronaviruses, Norovirus, and Escherichia coli. However, UV-C technology has not been proven effective against prions, which are highly resistant proteins that cannot be disinfected by ordinary physical and chemical disinfection methods. They are therefore considered indestructible.

UV Smart D25 Microbiological Efficacy Chart

Microorganisms ^{6,7}		Medical requirement (NEN-EN-14885:2018) (surfaces and instruments)	Results UV Smart	Source
Bactericidal	<i>Staphylococcus aureus</i> (ATCC 6538)	≥ Log 5	≥ Log 6	Streeklab Haarlem
	<i>Pseudomonas aeruginosa</i> (ATCC 15442)	≥ Log 5	≥ Log 6	Streeklab Haarlem
	<i>Enterococcus hirae</i> (ATCC 10541) **	≥ Log 5	≥ Log 6	Streeklab Haarlem
	<i>Escherichia coli</i> (ATCC 10536)	≥ Log 4	≥ Log 7	Streeklab Haarlem
Sporicidal	<i>Bacillus subtilis</i> (ATCC 6633) ***	≥ Log 4	≥ Log 6	Streeklab Haarlem
Yeasticidal & Fungicidal	<i>Candida albicans</i> (ATCC 10231)	≥ Log 4	≥ Log 7	Streeklab Haarlem
Fungicidal	<i>Aspergillus brasiliensis</i> (ATCC 16404)	≥ Log 4	≥ Log 6	Streeklab Haarlem
Yeasticidal	<i>Candida auris</i> (DSM 21092)	≥ Log 4	≥ Log 7	Streeklab Haarlem
Mycobactericidal	<i>Mycobacterium avium</i> (ATCC 15769)	≥ Log 4	≥ Log 7	Streeklab Haarlem
Mycobactericidal & Tuberculocidal	<i>Mycobacterium terrae</i> (ATCC 15755)	≥ Log 4	≥ Log 7	Streeklab Haarlem
Virucidal	<i>Poliovirus type 1, LSc-2ab</i>	≥ Log 4	≥ Log 4	Eurofins Biolab Srl*
	<i>Adenovirus Type 5, strain Adenoid 75</i> (ATCC VR-5)	≥ Log 4	≥ Log 4	Eurofins Biolab Srl*
	<i>Bovine coronavirus type 1</i>	≥ Log 4	≥ Log 4	Eurofins Biolab Srl*
	<i>Polyomavirus SV40, Stam 777</i>	≥ Log 4	≥ Log 4	Eurofins Biolab Srl*
	<i>Murine Norovirus, strain S99 Berlin</i>	≥ Log 4	≥ Log 4	Eurofins Biolab Srl*

This overview is merely for your information, the intended use shall always be leading.

Intended use

The UV Smart D25 is intended to reduce micro-organism count by at least log-4 on hard, non-porous outer surfaces of non-invasive medical devices.

Chart 1: Microbiological efficacy of UVC-disinfection with UV Smart D25

* Tests not yet included in the intended use

** Test done on *Enterococcus faecium* (ATCC12952)

*** Test done on *Bacillus cereus* (ATCC 12826)

Log Reduction:

⁴ log reduction = 99,99% fatality (1 in 10.000 survives)

⁵ log reduction = 99,999% fatality (1 in 100.000 survives)

⁶ log reduction = 99,9999% fatality (1 in 1.000.000 survives)

⁷ log reduction = 99,99999% fatality (1 in 10.000.000 survives)