Innovation in technologies for sterilization and disinfection control

Terragene®
solutions to guarantee
safety in
Veterinary Clinics

TERRAGENE®

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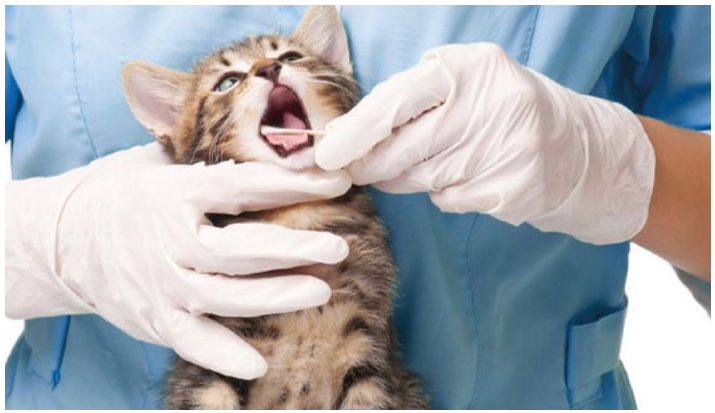


Terragene® offers a wide range of simple and effective products to precisely control the washing, hygiene and sterilization processes in veterinary clinics. Available in a variety of formats, these high performance control devices provide fast and consistent results in the control of veterinary infections.

Indicators for cavitation capacity testing of ultrasonic washers

Nowadays, ultrasonic washing machines are a fundamental tool for mechanical cleaning of veterinary instruments. The ultrasonic washing takes place through a process called cavitation, a microscopic phenomenon responsible for the removal of soil from the instruments. Cavitation energy can not be measured and depends on the integration of a complex series of parameters, thus the use of Chemdye® CDWU indicator becomes indispensable for the performance control of the ultrasonic washing machines.

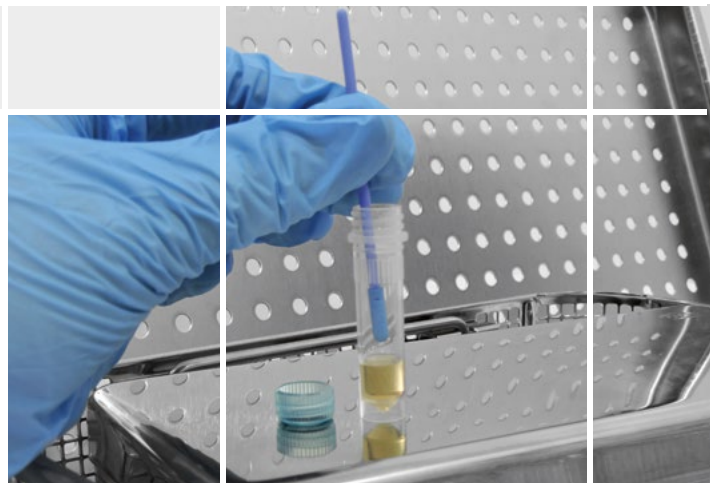
Chemdye® CDWU indicator consists of a transparent vial, with a blue-colored reactive solution and glass beads immersed in it. During cavitation, vibration of the glass pearls triggers a color change in the solution, from blue to yellow, through a range of green color intermediates. When cavitation energy is high enough to guarantee a correct washing of the instruments, the final result will be a yellow coloration, otherwise the indicator will remain greenish, which will show a weak cavitation zone located in that area of the washing machine.

Unprocessed

Low cavitation capacity

High cavitation capacity

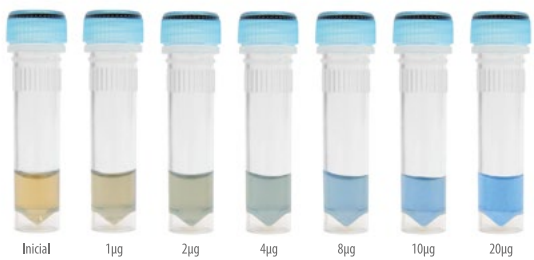
System
for surface residual
Protein detection



For control of hygiene instruments and endoscopes for veterinary use, Terragene offers the Chemdye® KPRO2-E69 and KPRO2-E250 Protein Monitoring Systems, designed to test the correct cleaning of materials by detecting protein residues.

The systems have a high absorption swab, allowing the collection of samples from different surfaces with the same efficiency. These are compatible with cleaning verification of endoscopes for veterinary use and other reusable cannulated instruments.

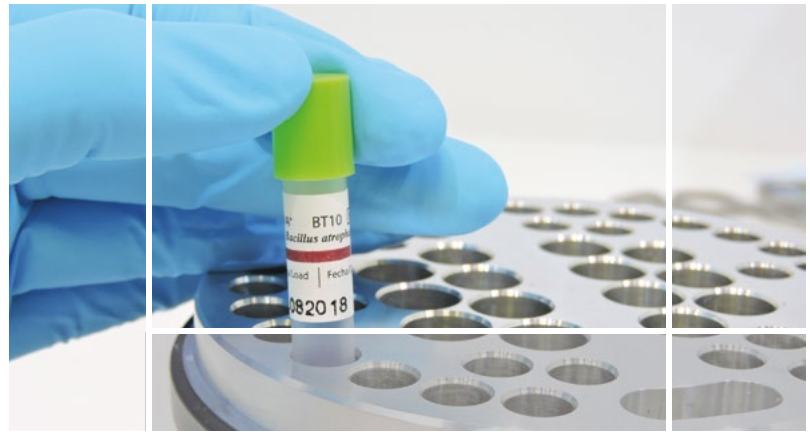
They can be used on washer-disinfectors, ultrasonic cleaners, surgical instruments and endoscopes.



KPRO2-E69

KPRO2-E250

Self-Contained Biological Indicators



Biological Indicators (BIs) are the only devices internationally accepted as direct evidence of microbial lethality after a sterilization cycle. Terragene® offers its line of Conventional Self-Contained BIs to control the sterilization processes of veterinary materials and instruments. Its innovation technology allows results to be obtained within 24 hours (Vapor and VH2O2) or 48 hours (Ethylene Oxide and Dry Heat).
In addition, Terragene® offers a line of Rapid Colorimetric BIs, which ensure reliable results in shorter times, 8 hs (BT90 and BT200).

Conventional Self-Contained

EO **BT10**

STEAM **BT20**

DRY **BT30**

VH2O2 **BT91**

Rapid Colorimetric Self-Contained

VH2O2 **BT90**

STEAM **BT200**

In orden to incubate Conventional and Rapid Colorimetric Self-Contained BIs, Terragene® offers the Bionova® IC10/20 Dual Incubator, which provides optimal conditions for accurate readout of a wide range of biological indicators (both at 37 °C and 60 °C) due to its block heater, furthermore allows to incubate culture media and biological ampoules for sterilization of liquid loads. This incubator has a hole for external temperature control (Bionova® TB-IC1020).

Performance control of the autoclave

TYPE 2

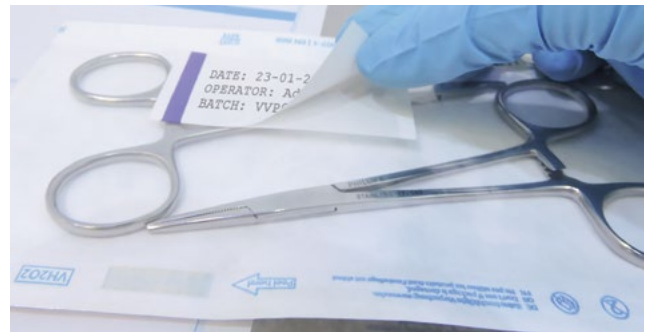
Bowie & Dick Test Pack

Chemdye® Bowie & Dick Test Pack was developed to control air removal and steam penetration performance in vacuum-assisted steam sterilizers. The product Chemdye BD125X/2 is a single-use device which consist of a lead-free chemical indicator, placed between porous sheets of paper, wrapped with crepe paper, with a steam indicator label (Type 1) on the top of the package. This test pack must be routinely used in the first cycle of the sterilizer, to ensure performance of the sterilizer in the rest of the loaded cycles, provided the result is accepted.

Bowie & Dick Test Card

Chemdye® Bowie & Dick Test Card has been designed to monitor the effectiveness of air removal in vacuum-assisted steam sterilizers at 132 °C, 4 minutes and at 134 °C, 3.5 minutes. This card consists of a Type 2 Metals free chemical indicator that changes from purple to green when processed. An heterogeneous color change, i.e the presence of purple/grey color, indicates presence of an air pocket during the sterilization cycle thus indicating sterilizer malfunction. This warns the user that it is not advisable to use the sterilizer to process the load. BD8948H is a stainless steel re-usable Holder for Bowie & Dick Test Card. The holder keeps BD8948X Test Card in place for proper assessment of sterilization cycle.

Sterilization process exposure control



TYPE 1

Self-adhesive tapes

Cintape® Self-adhesive tapes have been designed to wrap and seal sterilization packages as well as to distinguish between items that have been exposed to Steam sterilization processes from those that have not. Terragene® has tapes for every sterilization process: Steam (CT22), Ethylene Oxide (CT10), Plasma or Vaporized Hydrogen Peroxide (CT40) and Dry Heat (CT30).

Self-adhesive labels for automatic record system

Chemdye Automatic record system labels have been designed to monitor Ethylene Oxide (CD13), Steam (CD23), Dry Heat (CD33) and Plasma or Vaporized Hydrogen Peroxide (CD43) sterilization processes. These self-adhesive labels are usually placed out of the plate, stuck to packages or pouches, allowing differentiation between processed and unprocessed items. Their double-adhesive technology allows easy label removal from the sterilization package for data documentation.

Chemdye® CG3 is a Three-line Automatic Labeler that allows a quick and easy labelling of sterilization packages through the use of special documentation labels, preventing the traceability errors of the packs.

Sterilization process control

Multi-variable indicators for internal use

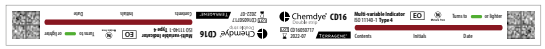
Simple and double strips

Chemdye® Type 4 Internal control strips are Multi-variable Indicators that rapidly show if critical parameters of the sterilization process have been reached, besides ensuring sterilizing agent appropriate penetration of the items inside the packages. This chemical indicators show a significant colour change when exposed to the stated values (SVs) of the critical process variables.

Terragene® offers various presentations of Type 4 Strips, according to the needs of the users.

VH2O2 **CD40**

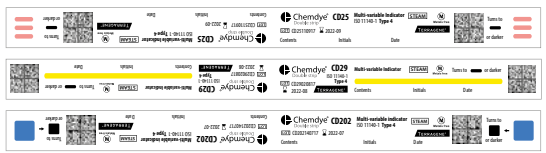
EO **CD16**



CD25

STEAM **CD29**

CD202



DRY **CD30**

TYPE 5

Integrators

Moving front integrators for Steam

Integron® IT26-C

It was developed for monitoring Steam sterilization processes between 118 ºC and 138 ºC and to ensure an adequate control of the effectiveness of sterilization processes by monitoring all critical parameters of steam sterilization (temperature, time, steam quality). Chemical pellet melts and migrates as a dark bar along the paper wick. Migration occurs through a zone marked as ACCEPT or REJECT, thus indicating whether sterilization conditions were met or not. The "ACCEPT" result is reached when a theoretical spore population reaches its kill time, indicating integration condition has been reached.

Unique point integrator for Steam

Integron® IT26-1YS

Integron® IT26-1YS indicator allows the verification of Steam sterilization cycles between 121ºC y 135ºC, ensuring that all critical process parameters (temperature, time, steam quality) have been met.

Two-level integrator for EO

Integron® IT12

It was developed to control Ethylene Oxide sterilization processes. It is a two-level indicator: Level 1 is the exposure level, which indicates exposure to Ethylene Oxide, while Level 2 is the integration level. This second level consists of a purple/brown ink dot that turns to green as it integrates all critical parameters of the sterilization process (time, temperature, humidity and Ethylene Oxide concentration). This indicator mimics the death curve of a theoretical Bacillus atrophaeus spore population.

Chemdye® BIONOVA® one by one T-Matrix® Integron® Cintape® Chemink® BIONOVA® Humidigene®

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