Recommended Products for Infection Prevention

Rev. 9 | May 2021

Let´s work together
to create a better future

What we do?

At Terragene® we develop and manufacture a vast range of infection prevention products adapted to current technologies, user's guidelines, international and local regulations and market demands.

The following catalogue will display core products for those who are taking their first steps towards infection control excellence in Healthcare and other industries.

Applications

√ **Healthcare**
Hospital, Clinics, Surgery Centers, Dental Clinics.

√ **Industry**
Food, Cosmetics, Pharmaceutical, Medical Devices, Others.

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Room Disinfection

Sterilization Monitoring

Biological Indicators

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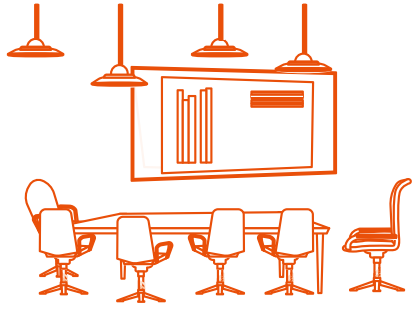
Washing, Disinfection & Hygiene

Bionova® Cloud



Room Disinfection

In recent years, there is an increasing consensus that improved cleaning and disinfection of environmental surfaces is needed not only in healthcare environment but also in other places like offices, hotels, means of transportation and other public spaces.
We have developed the most complete and innovative portfolio of products for disinfection monitoring in room and airborne disinfection procedures. Technology developed to certify disinfection in operating rooms also applied to everyday life.

The First Disinfection Certification System

The importance of environmental Disinfection

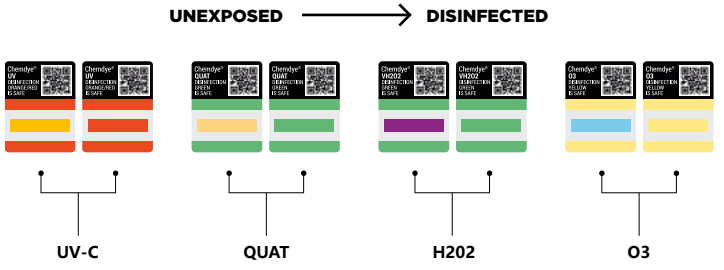
Certifying that any available space for human use is disinfected has become indispensable. That is the reason why we have created the first world disinfection certification digital system.

It allows companies to digitize their protocols, systematize and make them visible to their clients for greater trust and security. It is used to plan different protocols in areas with a large influx of people, as hotels, companies, airports, airplanes, cinemas, schools, businesses, means of transportation, gyms, healthcare environments and other kinds of public influx zones.

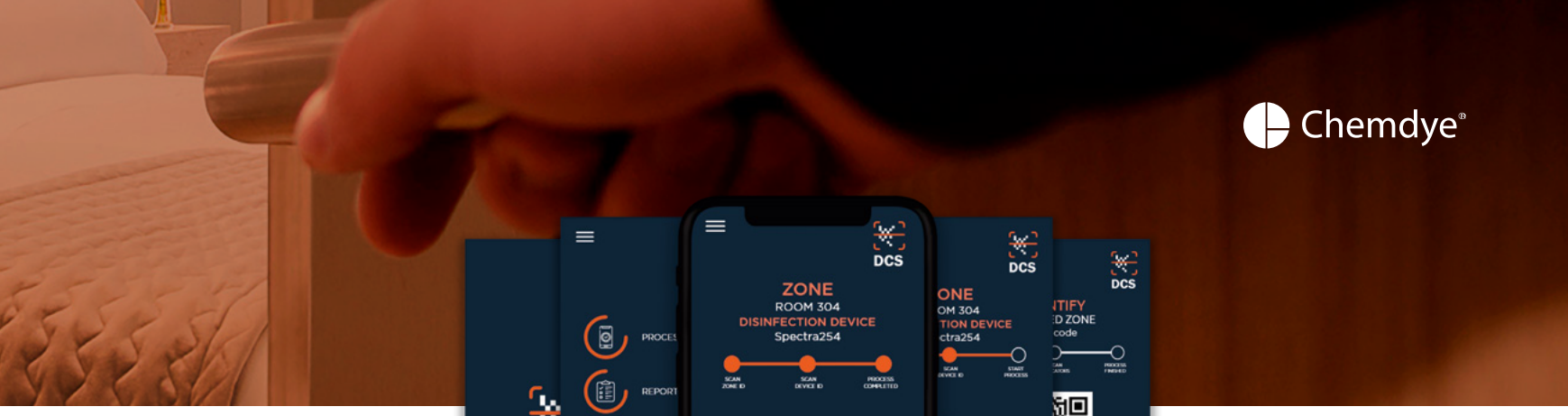
It uses quality standards similar to those used in operating rooms, but with the simplicity and portability of a mobile APP and the traceability of QR codes, that record level of disinfection in different environments.

Choose between different reactive inks and labels according your own disinfection process: UV-C | Quaternary Ammonium | H202 | O3.

DCS Provides transparent information for companies and customers.



The labels have a QR code that provides the information of a specific place that has been disinfected.



Chemdye®

User friendly

Trace all your results in real time

Developed with cutting-edge technology

Artificial intelligence

Machine learning

This application was developed in order for organizations to trace their disinfection control processes and gain access to the DCS Certification.

It allows companies to digitize their disinfection protocols, that lets the user check the disinfection status, which will be interpreted using concepts of Artificial Intelligence.

Chemdye® ChemDose

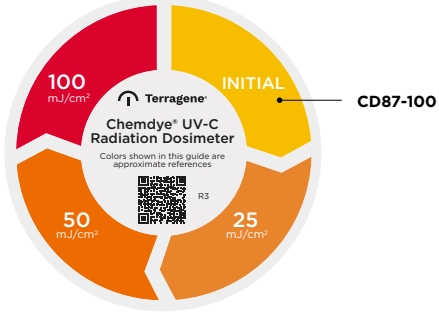
UV Dosimeters for Disinfection Systems

ChemDose

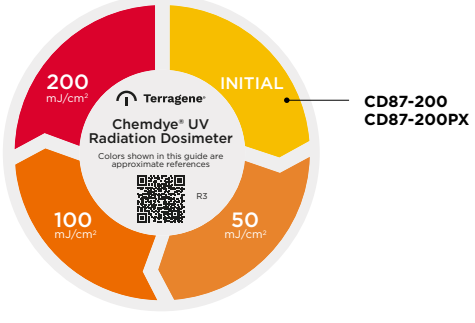
CD87-100 | CD87-200
CD87-200PX | CD87-1000

Chemical Dosimeter Indicator for monitoring disinfection processes by continuous UV-C (254 nm) radiation and pulsed light disinfection systems.

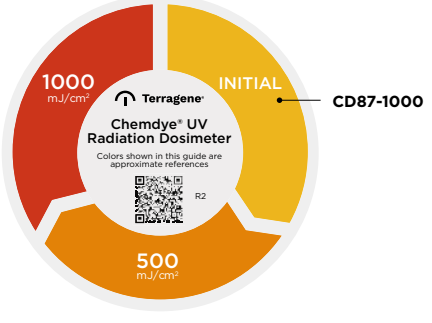
Results Interpretation Guide



CD87-100

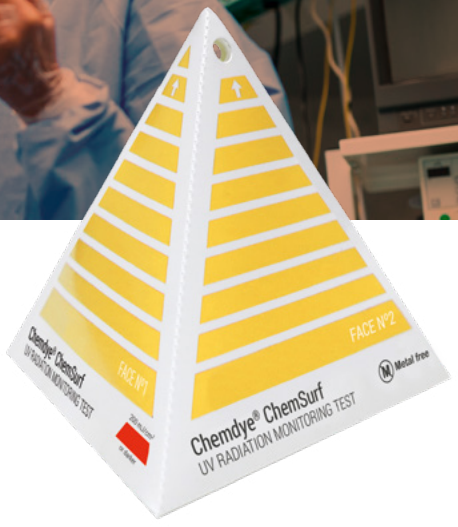


CD87-200
CD87-200PX



CD87-1000

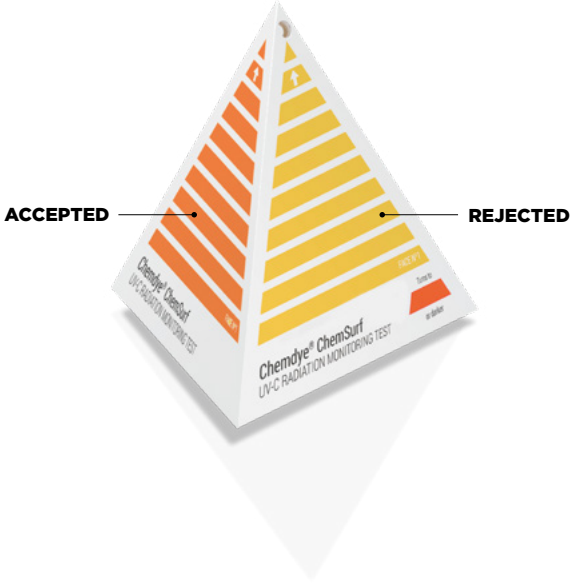
UV Airbone Disinfection Test



ChemSurf
CDSUV-1

3D Chemical Indicator for monitoring disinfection processes by continuous UV-C (254 nm) radiation.

Final Results Example



Main features

√ The ink pattern allows the evaluation of the consistency of UV spreading and coverage over the room.

√ Thanks to its unique special 3D format, the user can monitor all decontamination parameters in surfaces with different spatial dispositions.

√ Its distinctive design includes a silicone seal, which allows the pyramid to be placed at different levels, according to the room display and monitoring needs.

√ The indicator´s base contains a reference chart to mark the position of the indicator.

BIONOVA® BioSurf

H2O2 Airbone Disinfection Biological Monitoring Systems

1h
Rapid
Readout

BioSurf
BT97

Bionova® BT97 BioSurf Biological Indicator has been designed for quick and easy monitoring of airborne and surface disinfection processes by VHP and HPV. The system consists of two tubes: tube A which contains the spores to challenge the disinfection process, inoculated in a metallic coupon, and tube B which contains the culture medium used to reveal decontamination process success.

Advantages

√ Super Rapid Biological Indicator for Room Disinfection.

√ Incubation results in just 1 hour.

√ Unique in the market.

√ Easy handling, without cross-contamination.

√ Evaluation of the actual process, exposing bacteria on a surface directly to H2O2.

√ Compatible with all Bionova® Fluorescence Automatic Readers.

√ Exclusive holder specially designed for holding in place both tubes in a desired position inside the room to be disinfected.

√ The Type 1 indicator in the Tube B label allows verifying the correct exposure of this indicator to the decontamination process.

BT94

Specific design for Aerosol H2O2 disinfection systems.

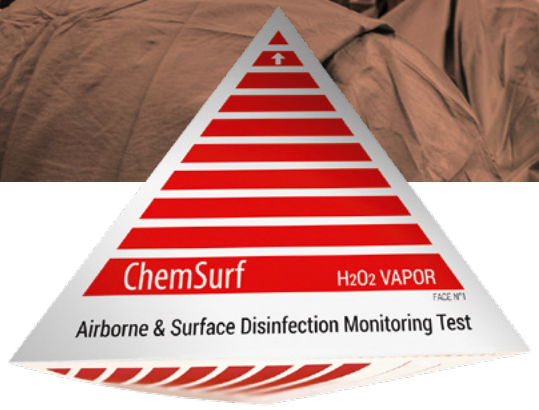
√ Monitoring of airborne and surface disinfection processes by Aerosolizaded H2O2.

√ Conventional readout with color change.

√ Similar configuration as BT97.

Chemdye® ChemSurf

H2O2 Airborne Disinfection 3D Chemical Monitoring



ChemSurf
CDS47V | CDS47A

ChemSurf indicators have been specially designed to react to Hydrogen peroxide based Airborne and Surface Disinfection, guaranteeing an adequate control of this process efficacy. The ink was developed to change its color when the disinfection process reaches the stated values of the critical variables. Two different products specially designed for each H2O2 disinfection technology.

Advantages

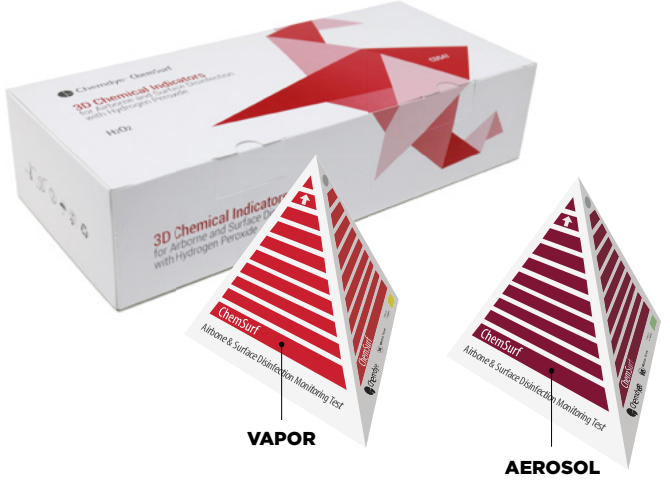
√ ChemSurf indicators allows monitoring all critical parameters of the disinfection process: time, temperature and H2O2 concentration.

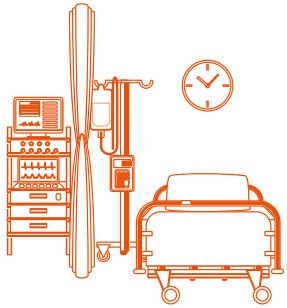
√ The ink pattern permits to evaluate the homogeneity of H2O2 spreading and coverage over the room.

√ Special 3D format, unique in the market, which concedes the possibility of monitoring all decontamination parameters in surfaces with different spatial dispositions.

√ Its distinctive design includes a silicone seal, which allows the pyramid to be placed at different levels, according to the room display and monitoring needs.

√ The indicator´s base contains a reference chart to indicate the position of the indicator and the disinfection equipment location.





Sterilization Monitoring

Sterilization procedures should be monitored using biological and chemical indicators. Biological indicators, or spore tests, are the most accepted means of monitoring sterilization because they assess the sterilization process directly by killing known highly resistant microorganisms. Chemical indicators do not guarantee sterilization; however, they help detect procedural errors (e.g., overloaded sterilizer, incorrect packaging) and equipment malfunctions. On the other hand, some chemical indicators should be used inside a package to verify that the sterilizing agent has penetrated it and reached the instruments inside.

Biological Indicators

Check out our Biological Indicators available here
terragene.com

BIONOVA®

PHOTON®

The first Instant Biological Monitoring System

Photon System

It is composed of a Self-Contained Biological Indicator with Instant Readout based on fluorescence technology and a dedicated fluorescence Auto-reader. It is designed for monitoring vacuum assisted and gravity air-displacement steam sterilization processes.

Bionova® Photon Instant Auto-reader has been designed for the incubation and automatic readout of Photon Bionova® Self-contained Biological Indicator (BT225).

100% Biological

The first and only 100% biological instantaneous monitoring system for steam sterilization processes.

Compact design

Allows to operate quickly, in tight spaces and without problems.

Easy & inmediate

In their two positions it automatically detects the Photon BI and delivers a readout result after a few seconds using advanced fluorescence techniques.

USB, Wi-Fi & Bluetooth®

The electronic tickets created can be accessed using compatible devices like smartphones. Record keeping through Bionova® Cloud Reading and Traceability software.

BIONOVA®

The fastest VH2O2 Sterilization Process Monitoring System

Hyper System

It is composed of a Self-Contained Biological Indicator with a 5 minute readout time based on fluorescence technology and a dedicated fluorescence Auto-reader. It is designed for monitoring plasma or vaporized Hydrogen Peroxide sterilization processes.

Bionova® Hyper Auto-reader has been designed for the incubation and automatic readout of Hyper Bionova® Self-contained Biological Indicators (BT98).

100% Biological

The fastest 100% biological monitoring system for plasma or vaporized Hydrogen Peroxide sterilization.

Compact design

Allows to operate quickly, in tight spaces and without problems.

Easy & hyper rapid

In their two positions it automatically detects the SCBI and delivers a readout result after 5 minutes using advanced fluorescence techniques.

5´
Hyper Rapid
Readout

USB, Wi-Fi & Bluetooth®

The electronic tickets created can be accessed using compatible devices like smartphones. Record keeping through Bionova® Cloud Reading and Traceability software.

Ultra Rapid, Super Rapid & Rapids Biological Indicators

Their innovative technology allows you to get reliable results in record time and speed up your workflow.

With increasing demands for faster sterile instruments turnaround in healthcare facilities, sterilization results need to be available as soon as possible to verify the sterility of the load. To fulfil these needs, Terragene® offers a broad portfolio of fluorescence biological indicators for sterilization monitoring.

- BT224 and BT222 for Steam.
- BT96 for VH202.
- BT102 for Formaldehyde.
- BT110 for Ethylene Oxide.

Ultra Rapid	Super Rapids		Rapids	
20´	30´	1h	2h	4h
				
STEAM	VH202	STEAM	FORM	EO
BT224	BT96	BT222	BT102	BT110

Learn more and check the related products
terragene.com

Bionova® BT224, BT96, BT222 and BT110 are FDA Cleared.

BIONOVA®

Fluorescence-based Process Challenge Device for Steam Sterilization

Steam PCDs

Process Challenge Devices are designed to simulate a biological indicator (BI) placed in a large hospital pack and emulate the 16 towell pack PCD described in AAMI-ST79. Bionova® PCD pre-assembled disposable test packs consists of a SCBI, a Type 5 Integrator Indicator and a self-adhesive Record Card, held within a stack of porous cards that poses resistance to steam penetration. The whole ensemble is contained within a cardboard box with a Type 1 Process Indicator that changes color when exposed to steam.

KPCD225-C
UNPROCESSED

REJECTED

ACCEPT

KPCD225-2
UNPROCESSED

NEGATIVE

POSITIVE

Code	Readout	SCBI
KPCD220-2	3 hs at 60 °C	BT220
KPCD220-C	3 hs at 60 °C	BT220
KPCD222-2	1 hour at 60 °C	BT222
KPCD222-C	1 hour at 60 °C	BT222
KPCD224-2	20 min. at 60 °C	BT224
KPCD224-C	20 min. at 60 °C	BT224
KPCD225-2	7 sec. at 60 °C	BT225
KPCD225-C	7 sec. at 60 °C	BT225

Compact Fluorescence Auto-reader

for Rapid, Super Rapid & Ultra Rapid Biological Indicators

MINIBIO

Easy to use

Allows quick, accurate and reliable detection of positive and negative BIs, providing results in short times.

Compact design

Bionova® MiniBio is a compact table-top auto-reader that can be placed anywhere in your facility thanks to its small size.

Automatic readout

Bionova® MiniBio Auto-reader detects when a BI is placed in an incubation position and automatically starts a readout.

Bionova® MiniBio Auto-reader is FDA Cleared.

One Auto-reader for every process monitoring

Bionova® MiniBio allows to simultaneously incubate with different incubation times. 3 positions, 3 incubation times.

Bionova® Cloud Reading & Traceability software system

USB connection for PC record keeping through Bionova® Cloud Reading and Traceability software.

Built-in Thermal Printer

A thermal printer delivers a ticket showing the final result of each active readout position. This allows recording of each sterilization result in a record keeping book.

No maintenance required

The device does not need any kind of routine maintenance.

Temperature calibration

The device has an opening on its side to insert a thermometer, which allows temperature calibration control.

BIONOVA®

Touchscreen Fluorescence Auto-reader

for Rapid, Super Rapid & Ultra Rapid Biological Indicators

IC10/20FRLCD

Touchscreen

Bionova® IC10/20FRLCD has a 3,5'' LCD touchscreen.

Workflow optimization

Bionova® IC10/20FRLCD has 12 positions to simultaneously incubate all different Bionova® SCBI and 1 position for incubating and quantifying Protein Pen (Hygiene Monitoring System). Furthermore, remaining incubation time at each position is displayed on the screen.

Automatic readout

Bionova® IC10/20FRLCD automatically reads the results of the incubation, displaying icons corresponding to each BI position when the final result is obtained.

Bionova® Cloud Reading & Traceability software system

USB, Wi-Fi & Ethernet connection for PC record keeping through Bionova® Cloud Reading and Traceability software.

Remote access

Remote display of each reading status in PC and Smartphones.

Result recording

The device automatically records the last 208 reading results. Remote viewing on the computer through the Embedded Web Server.

No maintenance required

The device does not need any kind of routine maintenance.

Temperature calibration

The device has an opening on its side to insert a thermometer, which allows temperature calibration control.

Bionova® IC10/20FRLCD Auto-reader is FDA Cleared.

Fluorescence Auto-reader

for Rapid, Super Rapid & Ultra Rapid Biological Indicators

IC10/20FR

Multiple positions

12 positions for incubating Rapid, Super Rapid and Ultra Rapid Fluorescence Readout SCBIs. 1 position for incubating and quantifying Protein Pen (Hygiene Monitoring System).

Different reading programs

Bionova® IC10/20FR allows to simultaneously incubate biological indicators with different incubation times.

Automatic readout

Bionova® IC10/20FR automatically reads the results of the incubation, showing specific led color lights corresponding to each BI position when the final result is obtained.

Bionova® Cloud Reading & Traceability software system

USB connection for PC record keeping through Bionova® Cloud Reading and Traceability software.

Result recording

The device automatically records the last 12 reading results. Remote viewing on the computer through the Embedded Web Server.

No maintenance required

The device does not need any kind of routine maintenance.

Temperature calibration

The device has an opening on its side to insert a thermometer, which allows temperature calibration control.

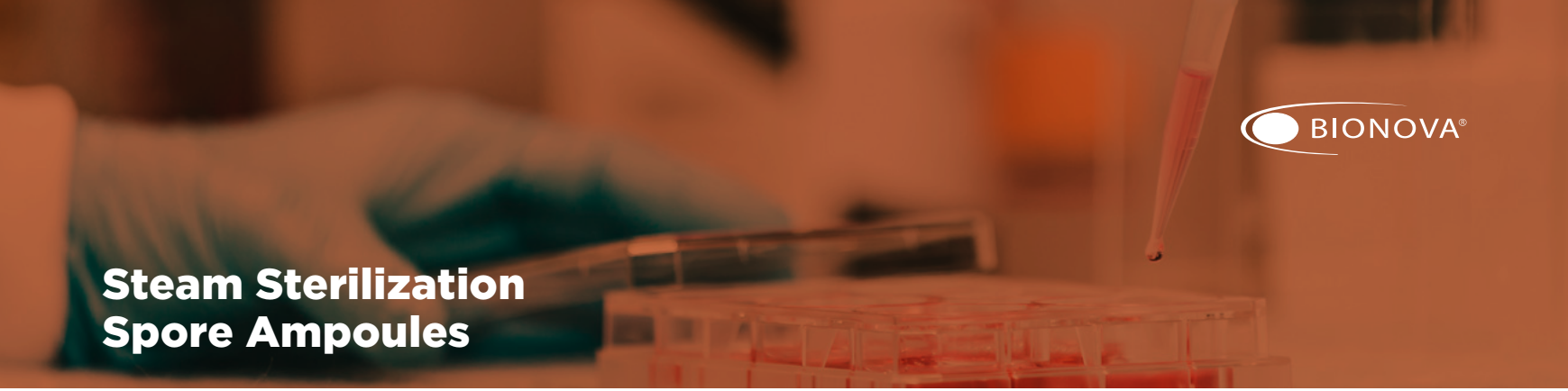
Bionova® IC10/20FR Auto-reader is FDA Cleared.

Conventional Biological Indicators

IC10/20

Biological indicators are the only internationally accepted indicators that provide a direct measure of a sterilization cycle lethality.
By using Bionova® Dual Incubator, Bionova® Conventional SCBIs produce visible results within 24 h (Steam, VH2O2) or 48 h (Ethylene Oxide, Formaldehyde and Dry Heat).

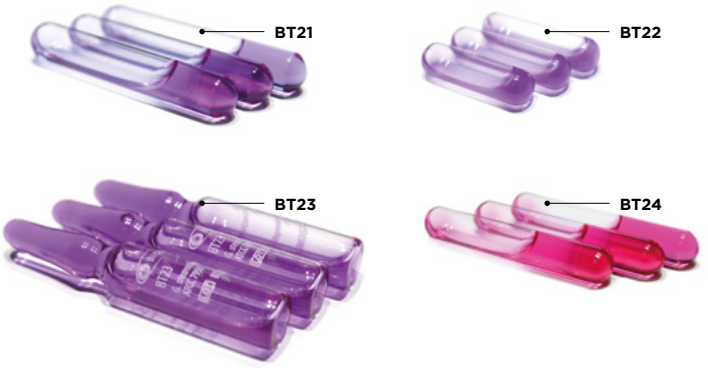
Bionova® Conventional SCBI



Steam Sterilization Spore Ampoules

BT21 | BT22 | BT23 | BT24

Bionova® Spore Ampoules are self-contained biological indicators for monitoring steam sterilization processes of liquid loads. Consists of different volumes of culture medium inoculated with a specific spores population: *Geobacillus stearothermophilus* ATCC 7953 (BT21, BT22 and BT23) and *Bacillus subtilis* DSM 5230 ATCC 35021 (BT24) within an hermetically sealed borosilicate glass. The culture medium is specially formulated to turn to yellow when spores grow. Bionova® spores ampoules provide visual confirmation of sterilization within 48 hs of incubation at 60 °C (BT21, BT22, BT23) or 37 °C (BT24).



Advantages

√ Easy to use and interpret.

√ Does not require activation.

√ Evidence of growth with direct visual confirmation.

√ For liquid load sterilization monitoring.

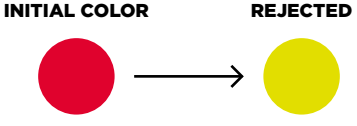
√ Available in packages refrigerated at 4 - 8 °C, includes negative controls.

Code	Conditions	Sterilization
BT21 | BT22 | BT23	121-134 °C	Steam
BT24	110-121 °C	Steam

Spore Strips, Spore Ampoule & Culture Medium

Bionova® Spore Strips consists of an envelope, permeable to the sterilizing agent, containing a paper strip inoculated with a spore population. BT31 BI consist of a sand type carrier with specific spores inside of a glass ampoule designed to monitor very high temperature dry heat sterilization processes.

After exposure to the sterilization process, strips and BT31 ampoule content are aseptically transferred to the culture media tube and incubated in the Bionova® Dual Incubator according to the specific conditions. If sterilization has failed, culture medium will show a significant color change. Conversely, if the sterilization process has been successful, the culture medium will remain its original color.



Code	Use	Spore	Compatible Culture Media	Conditions
BT40	EO DRY	*Bacillus atrophaeus*	MC1020 MC1030	48 hs at 37 °C
BT50	STEAM FORM	*Geobacillus stearothermophilus*	MC20 MC1020	24 hs at 60 °C 48 hs at 60 °C
BT60	EO DRY STEAM	*Geobacillus stearothermophilus and Bacillus atrophaeus*	MC20 MC1020 MC1030	24 hs at 60 °C 48 hs at 37 °C
BT31	DRY	*Bacillus atrophaeus*	MC1030	72 hs at 37 °C

Biological Indicators & Incubators Compatibility Chart

	 IC10/20	 PHOTON	 HYPER	 MINIBIO	 IC10/20FR	 IC10/20FRLCD
BT10	✓					
BT20	✓					
 BT21	✓					
 BT22	✓					
 BT23	✓					
 BT24	✓					
 BT30	✓					
 BT91	✓					
 BT96				✓	✓	✓
 BT98			✓			
 BT100	✓					
 BT102				✓	✓	✓
 BT110				✓	✓	✓
 BT222				✓	✓	✓
 BT224				✓	✓	✓
BT225		✓				
Bionova® Culture Mediums	✓					

Chemical Indicators

Check out our Chemical Indicators available here
terragene.com

Bowie-Dick Test Packs

Bowie-Dick Test Pack
BD125X/1 | BD125X/2

Chemdye® Bowie-Dick Test Pack was developed to control air removal and steam penetration performance in vacuum-assisted steam sterilizers. They are single-use devices that consist of a lead free chemical indicator, BD Test Sheet, placed between porous sheets of paper, wrapped with crepe paper, with a Steam indicator label on the top of the package. Product BD125X/1 also has a Warning Sheet which contains a circular lead free chemical indicator, thus allowing an early detection of air removal failures before they appear on the central chemical indicator.

Bowie-Dick Test Cards
BD8948X | BD8948X/1 | BD8948H

Chemdye® Bowie-Dick Test Card has been designed to monitor the effectiveness of air removal in vacuum-assisted steam sterilizers at 132 °C, 4 min and at 134 °C, 3.5 minutes. Chemdye® Bowie-Dick Test Card consists of a Type 2 metal free chemical indicator printed on one side of the card. Chemical indicator changes from purple to green when processed. Non-uniform color change indicates presence of an air pocket during the sterilization cycle thus indicating sterilizer malfunction.
BD8948H is a stainless steel re-usable Holder for keeping BD8948X and BD8948X/1 Test Cards in place for proper assessment of sterilization cycle.

Chemdye® BD125X/1 and BD8948X/1 are FDA Cleared.

Chemdye®

Cintape®

Process Indicators

Double adhesive labels
TYPE 1

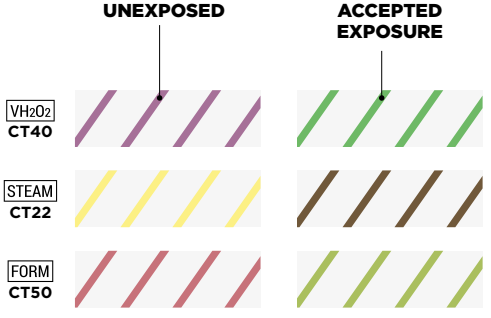
Automatic record system labels have been designed to monitor Ethylene Oxide (CD13), Steam (CD23), Dry Heat (CD33), Plasma or Vaporized Hydrogen Peroxide (CD43) and Formaldehyde (CD53) sterilization processes. These self-adhesive labels are used in the outer part of the sterilization packs, stuck to packages or pouches, allowing differentiation between processed and unprocessed items. Their double-adhesive technology allows easy label removal from the sterilization package for data documentation.

Label Gun

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. Chemdye® CG3 labeler has three printing lines of twelve alphanumeric digits per line.

Tapes
TYPE 1

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 sterilization processes from those that have not.

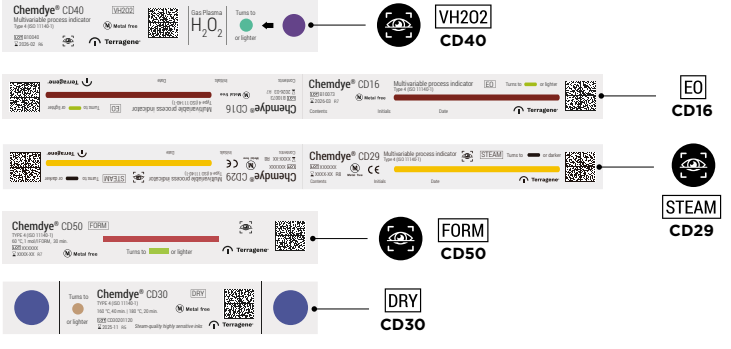


Cintape® CT22 and CT40 are FDA Cleared.

Multi-variable Indicators

Single and double strips
TYPE 4

Chemdye® Type 4 internal control strips are multi-variable indicators that rapidly shows if critical parameters of the sterilization process have been reached, ensuring appropriate penetration of the sterilizing agent inside the packages. These chemical indicators offers a distinct color change when exposed to the stated values (SVs) of the critical process variables.

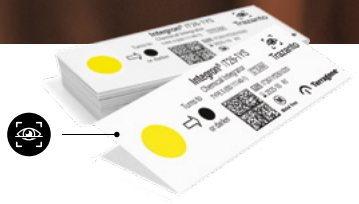


Learn more and check the related products
terragene.com

Chemdye® CD16, CD29 and CD40 are FDA Cleared.

Integrator Indicators

IT26-1YS
Unique point Integrator
TYPE 5



It was developed for verification of Steam sterilization cycles between 121 °C and 135 °C. These products ensure an adequate control of the effectiveness of sterilization processes (temperature, time, steam quality).
The accepted final color is reached when a theoretical spore population reaches its kill time, indicating integration condition has been reached.

IT12
EO Two level Integrator
TYPE 5

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.

IT26-C
with and without extender Moving front Integrator
TYPE 5

It was developed for monitoring Steam sterilization processes between 118 °C and 138 °C 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.

Integron® IT26-1YS, IT12 and IT26-C are FDA Cleared.

Emulators for Steam

IT28 | IT27-5YS | IT27-7YS | IT27-18YS
TYPE 6

Designed for monitoring Steam sterilization processes. They fulfil the requirements for Type 6 indicators monitoring all the critical parameters of the sterilization process at their position in the chamber, and ensuring an adequate control of the efficacy of the sterilization processes (temperature, time, steam quality).

Code	Conditions
IT28	3.5 min. 134 °C | 15 min. 121 °C
IT27-5YS	5 min. 134 °C | 15 min. 121 °C
IT27-7YS	7 min. 134 °C | 20 min. 121 °C
IT27-18YS	18 min. 134 °C

Emulators for Dry Heat

IT31
TYPE 6

Designed to react to Dry Heat sterilization processes at 160 °C for 40 minutes. Its blue indicating ink has been developed to turn to brown when the process reaches the stated values of the critical process variables for which it has been designed.

Code	Conditions
IT31	40 min. 160 °C

Learn more and check the related products
terragene.com

Chemical Ampoules

CD210 | CD220
TYPE 4

Chemdye® CD210 and CD220 Chemical tubes have been developed to monitor Steam sterilization of liquid loads. These are easy-to-use multivariable indicators, consisting of borosilicate glass tubes of 40 x 7 mm, sealed at both ends. The tube contains 0,25 ml of a thermosensitive red liquid that turns to green when the stated values of the critical process variables of the sterilization process have been reached.

Code	Description	Conditions	Sterilization
CD210	Black spot	15 min. 121 °C | 10 min. 126 °C	Steam
CD220	Yellow spot	3-3.5 min. 134 °C	Steam

Advantages

√ **Readability:** Color change from red to green provides an easy result interpretation.

√ **Stability:** A permanent color change allows an immediate evaluation of the sterilization cycle.

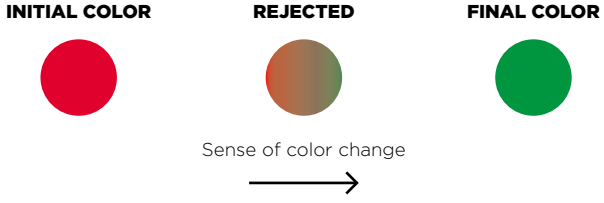
√ **Reliability:** It meets the quality standards from Type 4 multivariable indicators according to ISO 11140-1:2014.

√ **Flexibility:** For monitoring different times and temperatures sterilization cycles.

√ **Easy to use:** Allows monitoring sterilization inside liquids containers.

Performance

Chemdye® Chemical Tubes can be placed within the product to be sterilized. After exposure to the specific conditions, the reactive ink shows a permanent color change indicating that the parameters of the sterilization have been met.

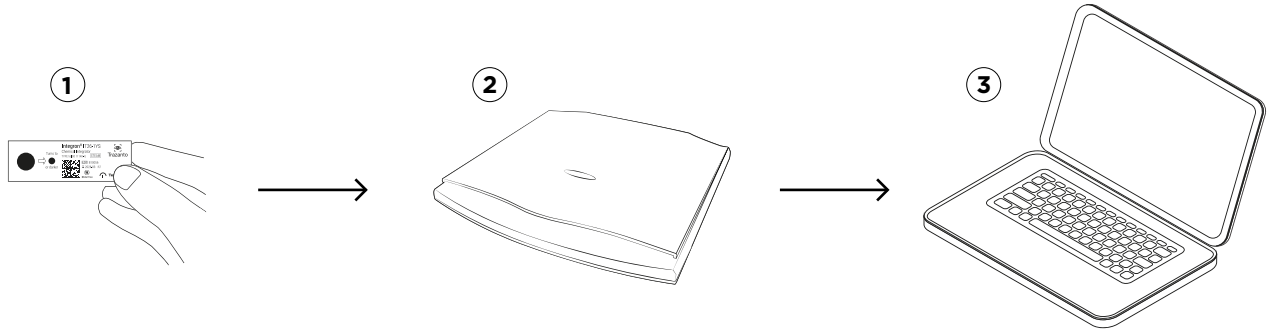


Trazanto® Analyzer

Check out Trazanto® and Compatible Indicators here
terragene.com

Trazanto®

Automatic System for Quality & Traceability Control of Washing & Sterilization processes



This innovative and unique system consists of a highly sensitive scanner associated to Bionova® Cloud Traceability Software and in conjunction with Trazanto®, which is our scanner. The scanner along with our traceability software are capable of analyzing and interpreting the results of Chemdye® and Integron® Cleaning and Sterilization Chemical Indicators. In this way, the user is able to collect the results of all the chemical indicators used in all the packs of the same sterilization cycle, or those used in different locations in a cleaning cycle, and to digitally store that information.

Trazanto® System interprets the results in a sensitive and reliable way, thus avoiding possible failures in the operator's visual interpretation. The recording of such results, through the usage of Bionova® Cloud Traceability Software, supports and protects them, by optimizing the results' traceability and availability, generating reports alerts if there are failures in the performance of certain cleaning or sterilization cycles and/or equipment.

Advantages

√ Artificial intelligence reading system.

√ Automatic recognition of product code and lot number.

√ Highly sensitive and easy-to-use scanner.

√ Associated with Bionova® Cloud Traceability Software that allows the registration and monitoring of results, and the generation and printing of reports.

√ Prevents possible failures in the operator's visual interpretation.

Trazanto® Compatible Indicators

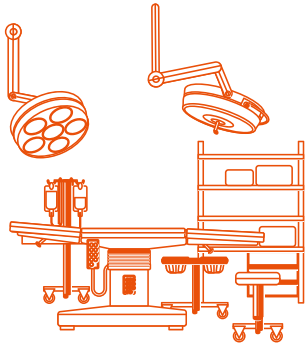
Washing

	CDWA3	For Cleaning performance tests
	CDWA4	For Washing Efficiency tests
	LUMENIA	For Washing Efficiency control in flexible endoscopes´hollow internal channels

Sterilization

	CD29	For Steam
	CD40	For Hydrogen Peroxide
	CD42	For Hydrogen Peroxide
	CD50	For Formaldehyde

	PCD20-2 | PCD20-C PCD220-2 | PCD220-C PCD222-2 | PCD222-C PCD224-2 | PCD224-C PCD225-2 | PCD224-C	For Steam processes
	PCD26-2 | PCD26-C	For Steam processes
	BD125X/1	Bowie-Dick Test Pack for 3.5 min at 134 °C
	BD125X/2	Bowie-Dick Test Pack for 4 min at 132 °C & for 3.5 min at 134 °C
	IT26-1YS	For Steam processes between 121-135 °C
	IT26-SBL	Unique point Steam Type 5 CI For Steam processes between 121-135 °C
	IT26-SAD	Unique point Steam Type 5 CI For Steam processes between 121-135 °C
	IT26-C	For Steam processes between 118-138 °C



Washing, Disinfection & Hygiene

It is vital to control the cleaning processes of medical instruments and devices since the result influences the success of the subsequent processes for sterilization. This control is crucial, particularly in automatic washing machines like washer-disinfectors and ultrasonic washing machines. The process parameters in the washing procedure may deviate from the acceptable limits. This can directly impact on the cleaning performance and affect negatively the final reprocessed materials. Moreover, the international Standards ISO 15883 (part 1 and 5), HTM-01 (part 01 and 05) and ANSI/AAMI (ST79:2017) require the monitoring of this process with a specific regime, through weekly or even daily check-ups.

Chemdye®

Protein-based quantitative Hygiene Monitoring System

PRO1 MICRO

Terragene® has developed the Chemdye® PRO1 Micro Hygiene Monitoring System which not only detects but also quantifies proteins, allergens and reducing agents on the surfaces of instruments, after the cleaning and disinfection process.
The system consists of a pen that has a high absorption swab and two separate reactive solutions contained within the same device. After taking the sample from the selected surface, the swab is returned to the pen, activated and the result is then obtained at 15 minutes of incubation at 60 °C (using Bionova® IC10/20FR and IC10/20FRLCD) or 10 minutes at 60 °C (in Bionova® MiniPro Auto-Reader). By its given final quantitative result, it is possible to determine whether reprocessing and/or retesting of the tested surface is necessary.
Chemdye® PRO1 MICRO system can obtain a quantitative result with a sensitivity of 0.3 µg.

Advantages

√ Unique absolute total protein quantification system.

√ High sensitivity.

√ Rapid test results in 10 minutes.

√ Alternatibely provides qualitative data. Comparison of the final color against a color pattern included within the device allows estimation of cleanliness.

√ It does not require handling dangerous chemical substances in specialized laboratories.

√ Quick results that allow taking immediate remedial action and avoiding healthcare-acquired infections.

√ Manufactured under ISO 15883-1 standard and follow recommendations set in the HTM01-05 and HTM 01-01 guidelines.

√ Traceability with Bionova® Cloud Software according to the HTM 01-01 guidelines.

BIONOVA® MiniPro

Auto-reader for Pro1 Micro Hygiene Monitoring System

10´
Ultra Rapid
Readout

Quantitative analysis

Bionova® MiniPro is an advantageous and very sensitive tool for incubation and reading of Pro1 Micro hygiene monitoring systems since it offers the user the unique benefit of performing a quantitative analysis of small quantities of protein and allergens, thus providing an exclusive and convenient way to keep results recording and traceability of every surface checked for contaminants. This exclusive feature makes Bionova® MiniPro an innovative device to keep objective track of surface cleaning process monitoring unparalleled on the current market.

Time Optimization

Bionova® MiniPro has 3 incubation positions, thus allowing the incubation of 3 Protein Detection System Pens at the same time.

Built-in Thermal Printer

A thermal printer delivers a ticket showing the final result of each active readout position. This allows to register each result in a record keeping book.

Reading & Traceability system

USB connection for PC record keeping through Bionova® Cloud Reading and Traceability software.

No maintenance required

The device does not need any kind of routine maintenance.

Temperature calibration

The device has an opening on its side to insert a thermometer, which allows temperature calibration control.

Compact design

Bionova® MiniPro is a compact table-top incubator that can be placed anywhere in your facility thanks to its small size.

Chemdye®

ATP based Hygiene Monitoring System

Surface ATP Test

Chemdye® ATP surface test ATP-s1 hygiene monitoring system has been designed for the detection of ATP on hard-to-reach surfaces that have been subjected to cleaning/ disinfection processes.
ATP is a molecule present in all living organisms, so it is a good indicator of the presence of microorganisms or residues that may promote their growth. When monitoring begins, the reagent in the test pen vial reacts with the ATP collected on the swab to produce luminescence. The intensity of the light emitted is proportional to the amount of ATP, and, therefore, it is also proportional to the degree of contamination.

Characteristics

- The system has a highly absorbable swab that allows the collection of samples from different surfaces, and a reactive solution.
- The swab is pre-moistened and is capable of releasing the ATP present inside living cells.
- Detection limit: 0.5 femtomol of ATP.
- Quantitative analysis using a specific Luminometer.

Indicators for Ultrasonic Cavitation performance test

CDWU

Chemdye® CDWU indicators consists of a transparent vial, with a blue-colored reactive solution and glass beads immersed in it. The formulation of the solution contained in the vial allows the monitoring of cavitation capacity of the ultrasonic washer. When cavitation functions properly, vibration of the glass beads triggers a color change in the solution, from blue to yellow, through a range of green color intermediates.
The CDWU indicators can be used for routine monitoring of ultrasonic washing machines with different ultrasonic washing configurations. It should be noticed that the CDWU indicators were developed to monitor the cavitation performance of the ultrasonic washing machine with an empty tank, that is, without any load.

Chemdye®

Integron®

Indicators for Cleaning efficiency monitoring

Thermodisinfection Indicators

Chemdye® Splat

Chemdye® Splat indicators consist of a synthetic support, which is stable at disinfection temperatures. Each indicator contains a mixture of specially combined colored organic components. Splat indicators formulation allows monitoring of all factors that affect the cleaning/washing process outcome. Splat indicators can be used for routine monitoring of cleaning/washing processes in washer-disinfectors and ultrasonic washing machines.
Chemdye® Splat CDWA indicators should be used along with Chemdye® Splat CDWAH (washer disinfectors) and CDWAH-U (ultrasonic washing machine) Holders. This accesories can be fixed on the tray, which allows reproducible location of the indicator inside the chamber. Also, CDWAH Holder poses a challenge to the washing process emulating shadowed or occluded surfaces of the instruments to be processed.
Chemdye® Splat CDWA cleaning indicators along with Chemdye® Splat CDWAH and CDWAH-U Holders allow to detect possible failures of a washing cycle.

After cleaning, surgical instruments must be disinfected to ensure safe subsequent handling and processing. Thermal disinfection with moist heat is the most common method for disinfection of medical devices when using washer disinfectors.
Disinfection efficacy is reach with a combination of temperature and time ranging from 90 to 93 °C and 1 to 10 minutes (or more), respectively.

IT27W-1 | IT27W-5 | IT27W-10

Integron® Indicators have been designed to react in moist heat disinfection processes in washer-disinfectors, providing an accurate, convenient method of routine control, and assuring disinfection efficiency. The green indicating ink was developed to turn to purple when temperature and time conditions are met.

Code	Time	Temperature
IT27W-1	1 minute	90 °C
IT27W-5	5 minutes	90 °C
IT27W-10	10 minutes	93 °C

Chemdye® LUMENIA®

Process Challenge Devices for AERs

Double challenge

Chemdye® Lumenia kits have been designed for monitoring cleaning performance in Automated Endoscope Reprocessors (AERs). These challenge devices consist of a series of hoses with different inner diameteres 1.5 m long. Each hose has special connectors in one of their ends for plugging it to the Endoscope Reprocessor, and a specially designed capsule in the other end where the Chemdye® Lumenia CDWE cleaning indicators are placed (one in the inner cavity of the capsule and the other one in its external part).

Advantages

√ Unique double challenge system allowing monitor the inner and outer washing efficacy.

√ Capsules and hoses identified with different colors for easier connection.

√ Safe to handle, no residual blood.

√ Adhesive on the back of the cleaning indicator strips facilitates result's registration.

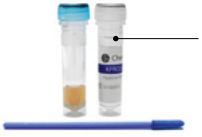
√ When using Trazanto® System, results can be easily registered and traced, thanks to the special design of the Lumenia cleaning indicator.

√ Very resistant and durable devices, thanks to the high quality material used in their confection.

Chemdye®

Semi quantitative Hygiene Monitoring System for Endoscopes & other Lumens

KPRO2-E250



KPRO2-E269

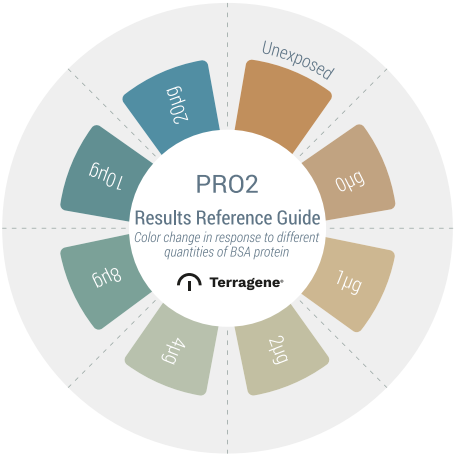
For common surfaces you can also choose a presentaton with a regurar swap lengh.

The first step in properly cleaning surgical instruments is to rinse off all blood, bodily fluids and tissue immediately after use. If cleaning is not carried out adequately, it may render the disinfection stage ineffective, causing patients to be exposed to bodily fluids and tissue contaminants from prior patients, which can result in the transmission of pathogens and affect large numbers of people.

KPRO2-E250

Chemdye® KPRO2-E250 Hygiene System is designed to check cleanliness of surgical equipment by detecting protein residues left behind following improper cleaning. The system has a high absorption swab, allowing the collection of samples from different surfaces with the same efficacy. The system is compatible with cleaning verification of endoscopes and other reusable instruments with hard to reach internal channels.

Color change in response to different quantities of protein




Terragene
Admin
HOME
COMPANY
SECTOR
USER
INCUBATOR
CONNECTED INCUBATORS
BIOLOGICAL INDICATORS
PROTEIN INDICATORS
CHEMICAL INDICATORS
ABM
LICENSE
DASHBOARD
CONFIGURATION
SECTOR I + D Electrónica
USER
NAME
LASTNAME
MAIL
USER TYPE
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STURLA
ELECTRONICA@TERRAGENE.COM.AR
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Bionova® Cloud

At Terragene® we have developed a complete traceability system for monitoring processes in sterilization departments. You can now have access to a complete solution associated with Terragene´s disposables. Streamline and automate the traceability associated with washing tests, chemical indicators (including the Bowie-Dick test), quantitative protein-based hygiene monitoring tests, and for any Bionova® fluorescense readout biological indicator.

BIONOVA® cloud

Digital workflow solutions for the Sterile Processing Department

Get full SPD Quality Control & Traceability!

Advantages

√ Get a full and automatic traceability system for all your monitoring processes: washing, hygiene, chemical monitoring and biological monitoring all together.

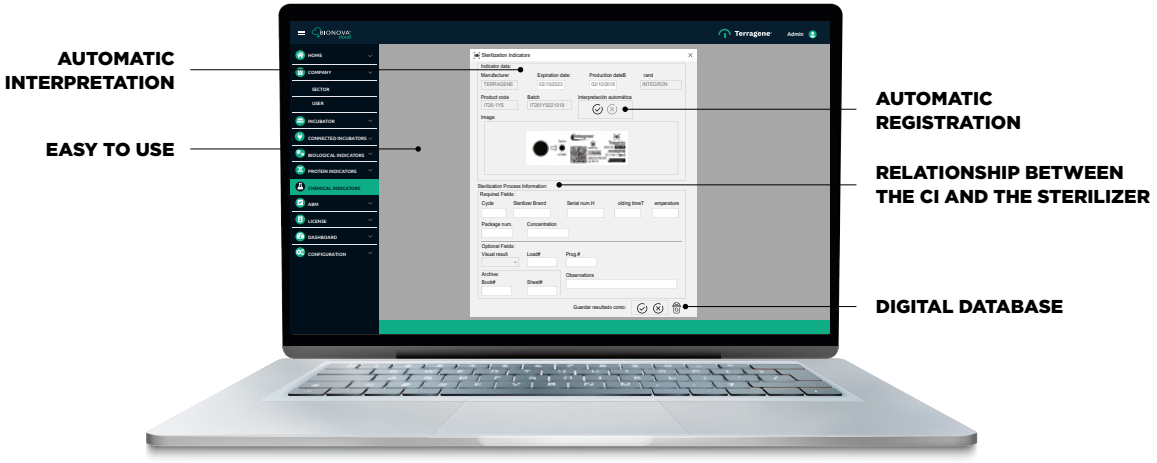
√ Avoid human error.

√ Instant online results.

√ Speed up all your processes: agile workflow and less time-demanding activities.

√ Monitor the historical performance of every equipment inside the SPD independently.

√ Accuracy and efficacy.



Bionova® Cloud Compatible Products

Sterilization

BOWIE-DICK TEST

BD125X/1

BD125X/2

BIOLOGICAL INDICATORS

BT95 | BT96 | BT98 | BT102 | BT110 | BT220 | BT221 | BT222 | BT223 | BT224 | BT225

CHEMICAL INDICATORS

IT26-C

IT26-1YS

IT26-SBL

IT26-SAD

CD29

CD40

CD42

CD50

PROCESS CHALLENGE DEVICES

PCD20-2 | PCD20-C
PCD220-2 | PCD220-C
PCD222-2 | PCD222-C
PCD224-2 | PCD224-C
PCD225-2 | PCD225-C

PCD26-2 | PCD26-C

AUTO-READER INCUBATORS

HYPER

PHOTON

MINIBIO

IC1020FR

IC1020FRLCD

INDICATORS ANALYZER

TRAZANTO®

Washing

WASHING INDICATORS

CDWA3

CDWA4

LUMENIA

INDICATORS ANALYZER

TRAZANTO®

Inspection & Hygiene

PROTEIN DETECTION

PRO1 MICRO

AUTO-READER INCUBATOR

MINIPRO

Let´s work together
to create a better future.

terragene.com