



Solutions to
guarantee safety in
Dental Clinics

For dental services

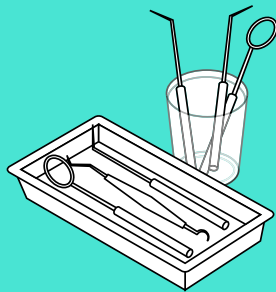


What do we do?

At Terragene we offer a range of effective, simple-to-handle products to accurately control every step of instrument reprocessing in dental clinics. Available in a variety of formats, these high-performance control devices provide fast and consistent results in order to protect what matters most to you, your patient.

Wanna know more?





Washing, Disinfection & Hygiene

It is vital to control the cleaning processes of 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 15883-1:2006, ISO 15883-5:2021, HTM01-01:2016, HTM01-05:2013 and ANSI/AAMI ST79:2017 require the monitoring of this process with a specific regime, through weekly or even daily check-ups.



Washing, Disinfection & Hygiene

Controlling cleaning and washing processes of dental instruments and materials is highly important since its outcome affects the success of subsequent disinfection and/or sterilization processes.

Cleaning Indicator

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.

- 2 challenge levels.
- High level of accuracy and reproducibility to reveal deficiencies in the washing process.
- Non-toxic organic formulation that guarantees a long shelf-life.



CDWA4
Very high challenge level.
Compatible with CDWAH and CDWAH-U Holders.



CDWAH-U
For Ultrasonic washing



CDWAH
For Thermodisinfection washing

Unprocessed



Failures



Processed and correct



Thermodisinfection Indicator

Integron® IT27W

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 in the hospital setting.

- Designed to react to moist heat disinfection processes in washer-disinfectors.
- Accurate and convenient method of routine control.
- Assurance of disinfection efficiency.
- Green indicating ink turns to purple when temperature and time conditions are met.

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



IT27W
Compatible with CDWA-H Holder for Thermodisinfection washing

Unprocessed



Failures



Processed and correct





Washing, Disinfection & Hygiene

Indicators for cavitation capacity test for ultrasonic washers

Chemdye® CDWU-Z

Control of cleaning and washing of instruments and dental materials is highly important since its outcome affects the success of subsequent disinfection and/or sterilization processes.

- Reliable results in routine control of ultrasonic washers.
- High confidence and reliability to reveal deficiencies in the cavitation capacity of ultrasonic washing machines.



CDWU-Z
Compatible with
CDWU-H Holder for
Ultrasonic Cavitation
indicator



Holder for ultrasonic cavitation test

Accessory for keeping the indicator in a fixed position without affecting its performance. This guarantees the correct performance evaluation of the nearest transducer.



Unprocessed



Low
cavitation
capacity



High
cavitation
capacity



Washing, Disinfection & Hygiene

Protein-based quantitative hygiene monitoring system

Chemdye® PRO1 MICRO

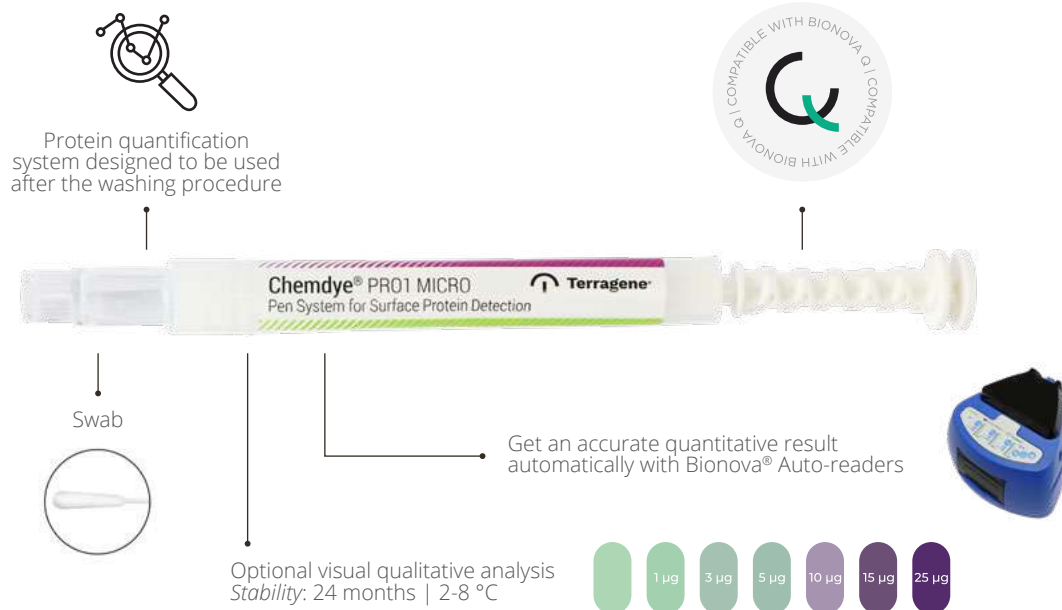
Terragene has developed the Chemdye® PRO1 MICRO hygiene monitoring system which not only detects but also quantifies proteins and reducing agents on the surfaces of instruments, after the cleaning and disinfection process.

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 7 minutes of incubation at 60 °C (using Bionova® IC10/20FR and IC10/20FRLCD) or 4 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 4 minutes with Bionova® MiniPro.
- Alternatively 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 15883-1:2006 standard and follow recommendations set in the HTM 01-05:2013 and HTM 01-01:2016 guidelines.
- Traceability with Bionova® Q Software.





Washing, Disinfection & Hygiene

Auto-reader for PRO1 MICRO hygiene monitoring system

Bionova® MiniPro

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, 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.

Compact design

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

Time optimization

Bionova® MiniPro has 3 incubation positions, thus allowing the incubation of 3 independent Protein 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 logbook.

 **4'**
Ultra Rapid
Readout



Reading & traceability system

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

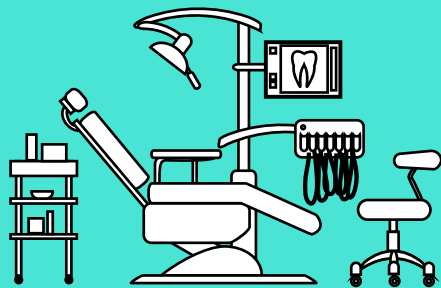
No maintenance required

The device does not need any kind of routine maintenance.

Temperature monitoring

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





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.



Sterilization | Biological Indicators



THE FIRST 7-SECOND
BIOLOGICAL MONITORING
SYSTEM



Fully compatible with
Bionova® Wireless Assistant



Fully compatible with
Bionova® Q



HIGH SENSITIVITY

Self-Contained
Biological Indicators (SCBI)
for steam sterilization
processes

STEAM BT225

Identification label
with process indicator

Not exposed
Exposed

Spore carrier with
Geobacillus stearothermophilus

PASS FAIL



Configuration
& alarm
cancellation
button



Temperature
progress &
stability
indicator



Fully
compatible with
Bionova® Q.



Two incubation
positions



Easy &
immediate



PC or mobile
connectivity via
USB, Bluetooth or
Wi-Fi



Bionova®
Wireless
Assistant

**Urgent procedures,
require immediate
decisions**

Monitor the results of your
Photon (steam 7-second
readout) auto-readers with
one click and convert the
information into correct
decision making.





Sterilization | Biological Indicators

Ultra Rapid, Super Rapid & Rapid Biological Indicators

The demand for sterile instruments in less time can now be met by the Bionova® Rapid Readout Fluorescence System. Bionova® Rapid, Super Rapid and Ultra Rapid Self-Contained Biological Indicators allow the release of steam-sterilized loads between 20 minutes to a few hours.

Rapid, Super Rapid and Ultra Rapid BIs for sterilization in autoclaves should be incubated in the Bionova® Automatic Fluorescence Auto-readers IC10/20FR, IC10/20FRLCD or MiniBio at 60 ± 2 °C. These devices provide accurate, rapid, reliable and easy detection of positive and negative indicators, offering final results in short times. All this information can be recorded and stored in the Bionova® Q Traceability Software, available on our website.

Ultra Rapid

Super Rapid

Rapid

20'



BT224
STEAM
132-135 °C

1h



BT222
STEAM
121-135 °C

3h



BT220
STEAM
121-135 °C



Auto-reader incubator

Bionova® MiniBio is a compact Fluorescence Auto-reader for Rapid, Super Rapid & Ultra Rapid Biological Indicators.



Compact design



Time optimization



Easy to use



Automatic readout



Temperature monitoring



Built-in thermal printer



No maintenance required



Sterilization | Biological & Chemical Indicators

Conventional Biological Indicators

Bionova® BT20 | BT30 & Dual Incubator IC10/20

Biological Indicators are the only internationally accepted indicators that provide a direct measure of a sterilization cycle lethality. By using Bionova® IC10/20 Dual Incubator, Bionova® Conventional SCBIs produce visible results within 24 and 48h.



Fluorescence-based Process Challenge Devices (PCD)

Steam PCDs

Process Challenge Devices are designed to simulate a Biological Indicator (BI) placed in a large hospital pack and emulate the 16 towel pack PCD described in ANSI/AAMI ST9:2017.

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.



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

KPCD224-C



Sterilization | Chemical Indicators

Bowie-Dick Test Pack

Chemdye® BD125X/1 | BD125X/2

Chemdye® Bowie-Dick Test Packs are single-use devices that consist of a lead free Chemical Indicator, a BD Test Sheet, placed between porous sheets of paper, wrapped with crepe paper, with a steam indicator label on the top of the package.



BD125X/1

Developed for testing air removal efficiency. Simulates the 4 kg handmade pack described in ANSI/AAMI ST79. It contains a Warning Sheet, thus allowing an early detection of air removal failures.



BD125X/2

Developed for detecting inadequate air removal and Steam penetration. Simulates the 7 kg handmade pack described in EN 285.

Bowie-Dick Test Card

Chemdye® KBD8948X | KBD8948X/1

Chemdye® Bowie-Dick Test Cards (ISO 11140-1:2014 and ISO 11140-5:2007) are 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 blue anodized aluminum re-usable Holder for keeping Test Cards in place for proper assessment of sterilization cycle.



BD8948H

Blue anodized aluminum re-usable Holder

Tapes | Type 1

Cintape® CT22 | CT30

Cintape® CT22 and CT30 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.



UNEXPOSED

ACCEPTED EXPOSURE

CT22
STEAM



CT30
DRY





Sterilization | Chemical Indicators

Single and double strips | Type 4

Chemdye® CD29 | CD30

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



	Unprocessed	Failures	Processed and correct
CD29 STEAM	Yellow	Greenish-yellow, Green, Yellow-green	Black, Dark brown
CD30 DRY	Blue	Dark blue, Brown, Light brown	Light brown, Tan

Unique point Integrator | Type 5

Integron® IT26-1YS

Integron® IT26-1YS 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 achieved when a theoretical spore population reaches its kill time, indicating integration condition has been reached.



Unprocessed	Failures	Processed and correct
Yellow	Greenish-yellow, Green, Yellow-green	Black

Moving front Integrator | Type 5

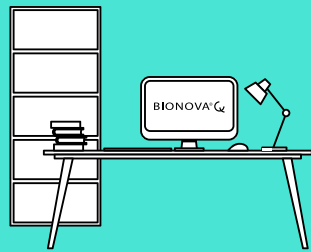
Integron® IT26-C

Integron® IT26-C 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.



Unprocessed	Processed Accept	Reject
White wick	Dark bar in the accept zone	Dark bar in the reject zone



Digital workflow solutions for the Sterile Processing department

At Terragene we have developed a complete traceability system for monitoring processes in sterilization departments.

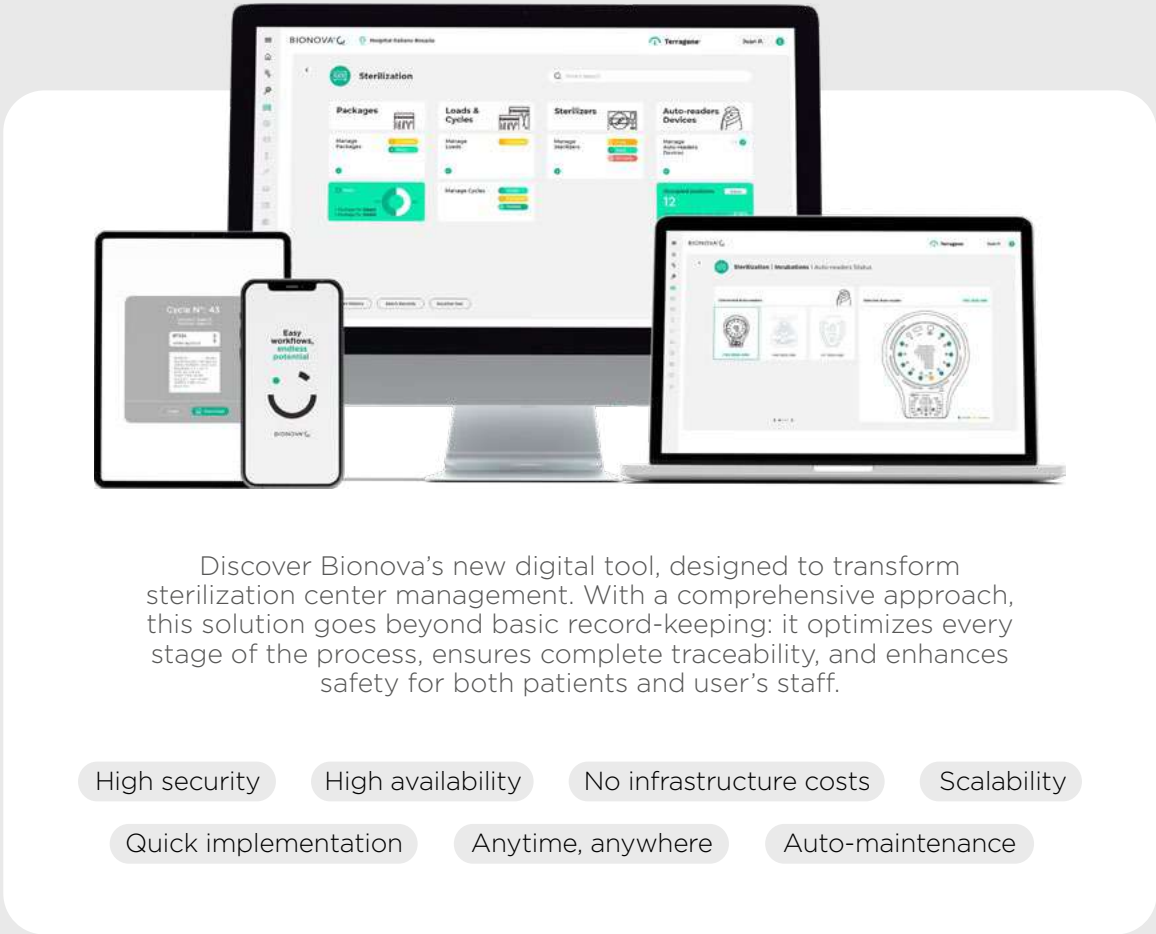
You can now have access to a complete solution associated with Terragene's disposables. Streamline and automate the traceability associated with washing tests, Chemical Indicators (including the Bowie-Dick test), quantitative protein-based hygiene monitoring tests, and for any Bionova® fluorescence readout Biological Indicator.

Easy workflows, endless potential

BIONOVA®

Your ally in CSSD

Terragene solution for streamlining process monitoring in the CSSD



Discover Bionova's new digital tool, designed to transform sterilization center management. With a comprehensive approach, this solution goes beyond basic record-keeping: it optimizes every stage of the process, ensures complete traceability, and enhances safety for both patients and user's staff.

- High security
- High availability
- No infrastructure costs
- Scalability
- Quick implementation
- Anytime, anywhere
- Auto-maintenance

Why choose Bionova Q?



Boost operational efficiency and reduce errors.



Guarantee full traceability of every device and supply.



Integrate with your existing systems to maximize control and safety.

Artificial intelligence for infection prevention

A quick scan of chemical indicators ensures efficiency and safety, revolutionizing the way sterile surgical instruments are cleared right before every procedure.



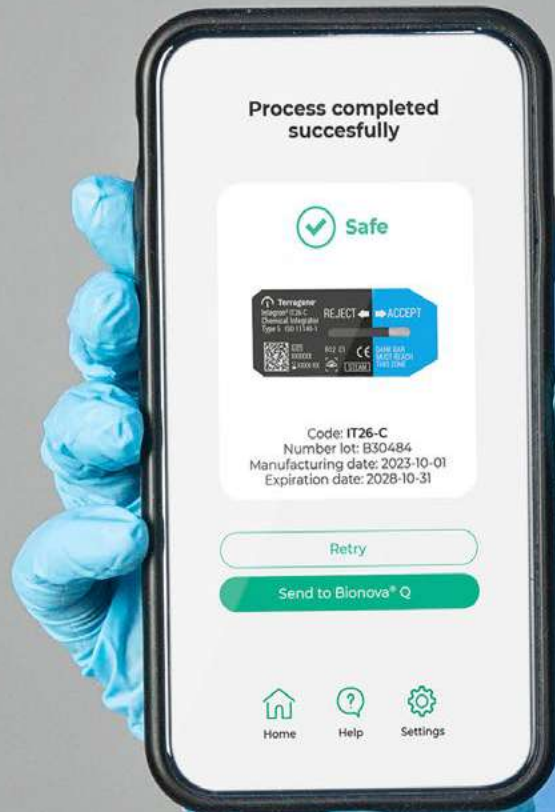
Scan the chemical indicator



Automatically AI reads and interprets the chemical indicator



Done! The report is available on Bionova Q



COMPATIBLE PRODUCTS



IT26-1YS
Unique point integrator indicator



IT26-C
Moving front integrator indicator



BD125X/1
BD125X/2
Bowie-Dick Test Pack



CD29
Multivariable indicators



CD40
Multivariable indicators



CD42
Process indicators



PCD-A-3,5Y
Test strips for use in Helix-PCD System



CDWA3
Cleaning Indicator for cleaning performance tests



CDWA4
Cleaning Indicator for cleaning performance tests

PRODUCT		DESCRIPTION	UNITS/PACKAGING
CLEANING AND HYGIENE CONTROL			
CDWA4		Cleaning Indicator for cleaning performance tests	200 units per bag
CDWAH		Holder for CDWA and IT27W cleaning indicators	1 unit per box
CDWAH-U		Holder for CDWA cleaning indicators	1 unit per box
IT27W-1		Thermoisinfection Indicator for Moist Heat Disinfection	200 units per bag
IT27W-5		Thermoisinfection Indicator for Moist Heat Disinfection	200 units per bag
IT27W-10		Thermoisinfection Indicator for Moist Heat Disinfection	200 units per bag
PRO1 MICRO		Pen system for Surface Proteins Detection	20 or 100 units per box
MiniPro		Auto-reader Incubator for Hygiene Monitoring System	1 unit per box
BIOLOGICAL INDICATORS FOR STERILIZATION CONTROL			
BT20	STEAM	SCBIs for Steam sterilization. Final readout: 24 hours	25/30/100 units per box
BT30	DRY	SCBIs for Dry Heat sterilization. Final readout: 48 hours	50 units per box: 25A+25B
BT220	STEAM	SCBIs for Steam sterilization. Final readout: 3 hours	50 units per box
BT222	STEAM	SCBIs for Steam sterilization. Final readout: 1 hour	50 units per box
BT224	STEAM	SCBIs for Steam sterilization. Final readout: 20 minutes	50 units per box
BT225	STEAM	SCBIs for Steam sterilization. Final readout: 7 seconds	50 units per box
IC10/20		Dual incubator for Biological Indicators	1 unit per box
MiniBio		Auto-reader Incubator for Fluorescence Biological Indicators	1 unit per box
BPH-Photon		Auto-reader Incubator for Fluorescence Biological Indicators	1 unit per box
KPCD220-C KPCD222-C KPCD224-C KPCD225-C	STEAM	Test pack for Steam sterilization processes. Contains: porous cards system holding a SCBI, a moving-front Type 5 integrator indicator and a self-adhesive record card. KPCD220-C: Final readout: 3 hours KPCD222-C: Final readout: 1 hour KPCD224-C: Final readout: 20 minutes KPCD225-C: Final readout: 7 seconds	1 kit x 25 PCDs + 1 box x 25 SCBIs
CHEMICAL INDICATORS FOR STERILIZATION CONTROL			
BD125X/1	TYPE 2	Bowie-Dick Test Pack with Warning Sheet	20 units per box
BD125X/2	TYPE 2	Bowie-Dick Test Pack	20 units per box
KBD8948X	TYPE 2	Bowie-Dick Test Card + Holder	120 units + 1 holder per box
KBD8948X/1	TYPE 2	Bowie-Dick Test Card + Holder	120 units + 1 holder per box
CT22	TYPE 1	Self-adhesive indicator tape for Steam	1 roll of 50 m x 19 mm
CT30	TYPE 1	Self-adhesive indicator tape for Dry Heat	1 roll of 50 m x 19 mm
CD29	TYPE 4	Multivariable indicators for Steam sterilization	250 strips per bag
CD30	TYPE 4	Multivariable indicators for Dry Heat sterilization	250 or 500 strips per bag
IT26-1YS	TYPE 5	Unique point integrator indicator for Steam sterilization	200 or 500 units per bag
IT26-C	TYPE 5	Moving front integrator indicator for Steam sterilization	100 or 250 units per bag

OEM
DEVELOPMENT DIVISION



YOUR BRAND, OUR INNOVATION

At Terragene, we understand that every brand has a unique vision. Our **OEM (Original Equipment Manufacturer)** and **Private Label** services provide tailored solutions to elevate your brand with high-quality products. Whether you're looking to develop products under your own brand or need a reliable manufacturing partner, we're here to turn your vision into reality.

HEALTHCARE, DENTAL, INDUSTRIES, PHARMA.

**Efficiency, quality, and advanced
technology at your fingertips.**

CONTACT US



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