

# >>> Product Catalogue



*Sterilization supplies*

## Ethylene Oxide Cartridges

Manufactured with components of high quality, they are the best alternative for your EO gas sterilizer.

### Main features

- \* There is a suitable choice for almost every sterilizer available in the market.
- \* 100% ethylene oxide which ensures optimum bactericidal, viricidal and fungicidal performance.
- \* Disposable cartridges are safe to operators, hermetic and inviolable.
- \* Disposable cartridges do not contain CFC (Freon); hence they do not affect the ozone layer.
- \* Every single cartridge has a rigorous leaking test and its individual weight is controlled which provides higher security to the operators.
- \* Within a sterilizer they allow to effectively sterilize when all the critic parameters for a correct sterilization are being controlled (gas concentration, exposure time, temperature and relative humidity).
- \* ISO Certification 13485.



EFELAB CARTRIDGES			
CODE	MEASUREMENTS		CONTENT
PRODUCT	DIAMETER	HEIGHT	GRAMS
1007 / 10	25 mm.	85 mm.	7 / 10 grs.
1025 / 30	25 mm.	105 mm.	30 grs.
1050	35 mm.	105 mm.	50 grs.
1067	35 mm.	105 mm.	67 grs.
1070	35 mm.	140 mm.	70 grs.
1100 / 3	38 mm.	165 mm.	100 grs.
1128 / 3	38 mm.	165 mm.	128 grs.
1130	50 mm.	133 mm.	130 grs.
1134 / 3	38 mm.	165 mm.	134 grs.
1170 / 3	45 mm.	176 mm.	170 grs.
1180	50 mm.	174 mm.	180 grs.
1200	50 mm.	174 mm.	200 grs.
1220	50 mm.	174 mm.	220 grs.
1230	50 mm.	174 mm.	230 grs.
1250	65 mm.	260 mm.	250 grs.

Ethylene oxide ampoules are a versatile product that can be used in both sterilization machines and in an emergency circumstance.

## Ethylene Oxide Ampoules

### Main features

- \* The sterilization kit is composed by sterilizing gas ampoules –active component ethylene oxide and inert gases- which come into membrane-containers, plus container-bags for conditioning the materials to be sterilized and plastic seals to close the container-bags.
- \* This gas main feature allows it to easily penetrate and spread into different materials, thus allowing an effective sterilization.
  - \* This system allows almost any kind of material to be sterilized; including those that cannot be submitted to high-temperature processes like steam or dry heat.
  - \* The sterilizing-gas-ampoule-method it is an easy-to-use cold sterilization system that can be used in both sterilization machines and in an emergency circumstance, as it can be performed without electricity, natural gas, air pipelines or any other special connections on condition that some safety procedures are rigorously followed.
- \* **Model 4320** with external plastic protection (Cartridge) and easy breakage system. It incorporates humidifiers and process indicators in the sterilization kit.



CODE	AMPOULE		BAG		QUANTITY
	VOLUME	% ETO	SIZE	CAPACITY	
4005	5 cm3	90 %	31 x 60 cm.	11 liters	20 units a box
4010	10 cm3	94%	43 x 78 cm.	22 liters	5/10 units a box
4020	20 cm3	97%	56 x 96 cm.	34 liters	5/10 units a box
4320	20 cm3	97%	56 x 96 cm.	34 liters	5 units a box

## See-through Medical Reels

*The product is composed by medical grade paper that has been specifically developed for manufacturing medical reels and bi-laminated transparent film with anti-bacteria barrier. The product complies with EN 868-5 and provides optimum performance, resistance and peeling.*

### Main features

- \* Built-in chemicals indicators for Steam and Ethylene Oxide (EO) processes.
- \* Easy visualization of the contents packaged through its bi-laminated transparent film.
- \* Presentation: Gusseted and flat reels of 50, 100 and 200 meters long by 5, 7, 10, 12.5, 15, 20, 25, 30, 40 and 60 centimeters wide.
- \* Manufactured under UNE-EN 868 Norm; Part 1 and 5 of the European Community (CE).



### Main characteristics of the medical grade paper used to manufacture Blue Peel reels

- \* Manufactured with pure paper cellulose, chloride and optic whiteners free.
- \* Complies with EN 868-2, EN 868-3, EN 868-4 and ISO 11607 standards.
- \* High performance antibacterial barrier: it provides higher covering against contamination.
- \* High mechanical resistance to materials with acute edges or heavy objects.
- \* Controlled pore size for optimum product conservation (necessary condition to assure the maintenance of sterility inside the package).
- \* High resistance of the paper against liquids which provides protection against contamination.
- \* Superior sealing / peeling quality.

Code / Catalogue : PF/PH05 - PH07 - PH10 - PH12 - PH15 - PH20 - PH25 - PH30 - PH40 - PH60.

## Medical Pouches for Sterilization

*Specially developed packaging for sterilization. This product can be manufactured OEM and following particular requirements in terms of printing and size to fulfill customers' requests.*

*Suitable for medical and dental devices, incorporates chemical indicator for Steam and Ethylene Oxide (EO) processes. Other sterilization indicators can be printed upon request.*

### Benefits of using Blue Peel sterilization pouches:

- \* Antibacterial barrier: excellent resistance and safety against external contamination even in rigorous conditions of use.
- \* Aseptic peeling: Prevents contamination of the medical device at the time of opening the package.
- \* Puncture resistance: Prevents the tearing of the package and ensures an optimum conservation of the product.
- \* Economy: Reduces products mishandling.
- \* Visibility: enables optimum display of the product contained into the package
- \* Incorporates sterilization indicators for a quick identification of processed materials.



**Consult for customized solutions for sterilization devices (OEM)**



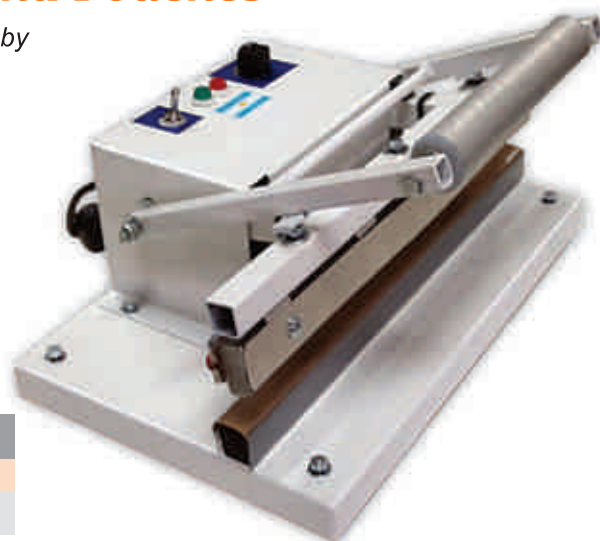
## Manual Sealer for Medicals Reels and Pouches

*This sealer is specially developed for closing medical reels composed by medical grade paper and laminated film PO/PP type pouch.*

### Main features

- \* Precise temperature regulation through its electric controller.
- \* 400 mm length of weld and 10 mm width of sealing
- \* Luminous indicator shows when working temperature is achieved.
- \* Six-months guarantee on electrical parts.
- \* Economical and practice.

CODE / CATALOGUE No.	DESCRIPTION	MEASUREMENTS
SPM-40	Manual sealer	Sealing band 40 cm x 10 mm
SR-01	Continuous sealer without dispenser	3 Sealing bands



## Continuous Rotary Sealer for See-through Flat Reels

*Continuous sealers have the particularity of carrying the package automatically once placed through a channel of heat and then through the sealing rollers. This type of machines has certain advantages against conventional manual sealers.*

### Main features

- \* Rotary sealers occupy little room into the CSSD.
- \* Fast sealing process that enables a large amount of daily work.
- \* Average speed 9 meters / minute.
- \* The system of continuous sealing through rollers produces standard and secure results in terms of sealing quality.
- \* Self-adjusting rollers avoid alterations in the pressure exerted on the conjunct paper / laminated film at the moment of sealing. Additionally, sealing rollers produce more even pressure over the surfaces resulting in a more consistent and safe sealing performance in case of using gusseted packages.
- \* Sealing temperature digital regulator. Suitable for Tyvek Pouch



## Tyvek Hydrogen Peroxide Medical Flat Reel for Sterilization

*As technologies evolve, so do sterilization systems. Sterilization by Hydrogen Peroxide is a relatively new method that allows cold sterilization of various materials. The limitations of not being able to use some cellulose derivatives during this process means that the choice of a quality packaging for the materials to be sterilized is paramount. In the same way, an adequate packaging prolongs the useful life of the materials to be processed. Under this concept, peelable reels made of Tyvek® (a special material by Dupont™) have been developed with transparent PE / PET bilaminate film for medical use. They incorporate a process indicator for Hydrogen Peroxide incorporated. This set provides excellent quality at a convenient price.*

### Main features

- \* High antibacterial barrier that provides greater security against container contamination.
- \* Great mechanical resistance provides greater security with materials with sharp edges or heavy objects.
- \* Superior quality of sealing and peelability.
- \* Built-in chemical indicator for Hydrogen Peroxide (VH<sub>2</sub>O<sub>2</sub>) that changes from blue to pink.
- \* Easy visualization of the contents through the bilaminate film.
- \* Presentation: Reels of 70 MTS.
- \* Manufacture complies ISO 9001: 2015 and ISO 13485:2016 quality standards and the specific norm for sterilization packaging: EN 868 -5 and ISO 11607.





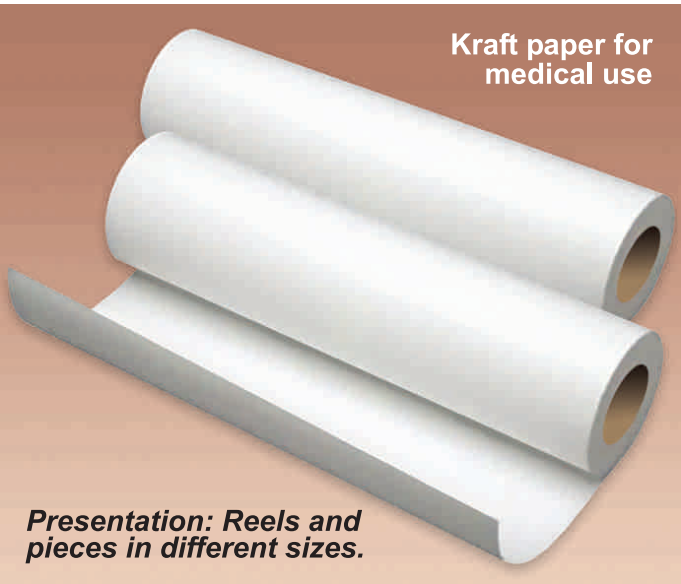
## Medical Kraft and Medical Crepe: Medical Grade Paper 60 g/m<sup>2</sup>

The wrapping materials used in the Central Sterile Service Department (CSSD) should comply with rigorous standards and specifications of raw materials at the time of its manufacturing process.

Medical grade papers for sterilization are an effective barrier against the penetration of microorganisms and environmental dust due to the fact that they are permeable to sterilizing agents but yet secure against contaminating. A controlled pore size guarantees products asepsis after sterilization and optimum shelf-life storage. Medical grade kraft and crepe paper provide great resistance to handling in dry and wet. Compatible with Dry heat, Steam, Ethylene oxide, Formaldehyde and Gamma ray sterilization processes.



**\* Crepe paper for medical use.**



**Kraft paper for medical use**

**Presentation: Reels and pieces in different sizes.**

Our medical grade papers comply with international quality standards: IRAM 3108, IRAM 3110-1, IRAM 3117, (British Standard) BS 6255, BS 6256, ABNT NBR14990-3, EN 868-2, EN 868-3, EN 868-6 and ISO 11607.

## Sterilization Medical Grade Paper Bags

Container wrapping bag for sterilization manufactured with 60 gr medical grade paper according to international standards, especially indicated in the process of packaging and sterilization of medical material that does not require visual identification of the content of the bag.

Medical packaging designed for use in steam / dry heat sterilization processes and compatible with other sterilization systems such as ethylene oxide (ETO), gamma radiation and formaldehyde.

Controlled porosity and high physical-mechanical strength of the container bag, controlled tightness, and wide range of sizes for almost any wrapping requirement.

OEM manufacturing on demand.

Class I sterilization indicator for steam incorporated which changes from pink to brown.



CÓDIGO	MEDIDA	PRESENTACIÓN
BA0915	90 mm x 150 mm	box x 1500 units
BA0924	90 mm x 240 mm	box x 1000 units
BA09144	90 mm x 40 mm x 145 mm	box x 1000 units
BA09254	90 mm x 40 mm x 250 mm	box x 1000 units
BA13183	130 mm x 30 mm x 180 mm	box x 1000 units
BA13223	130 mm x 35 mm x 220 mm	box x 1000 units
BA15264	150 mm x 40 mm x 260 mm	box x 1000 units
BA15324	150 mm x 40 mm x 320 mm	box x 500 units
BA17426	175 mm x 65 mm x 420 mm.	box x 500 units
BA26526	260 mm x 60 mm x 520 mm.	box x 500 units

### Medical Kraft 60g/cm<sup>2</sup>.

Manufactured according to International Quality Standards EN 868 Part 4 (CE) – BS 6257 DIN 58953 Part 3 – IRAM 3112 and ISO 11607.

## Multiparameter Indicator for Steam Sterilization Type 4

CHEMGRATOR multiparameter indicators are designed to be used within the packages or specific locations within the sterilization chamber where the sterilizing agent cannot easily access.

The change of color of the multiparameter indicator occurs only in presence of all the critical parameters of a Steam sterilization cycle (time, temperature and saturated steam).

### Main features

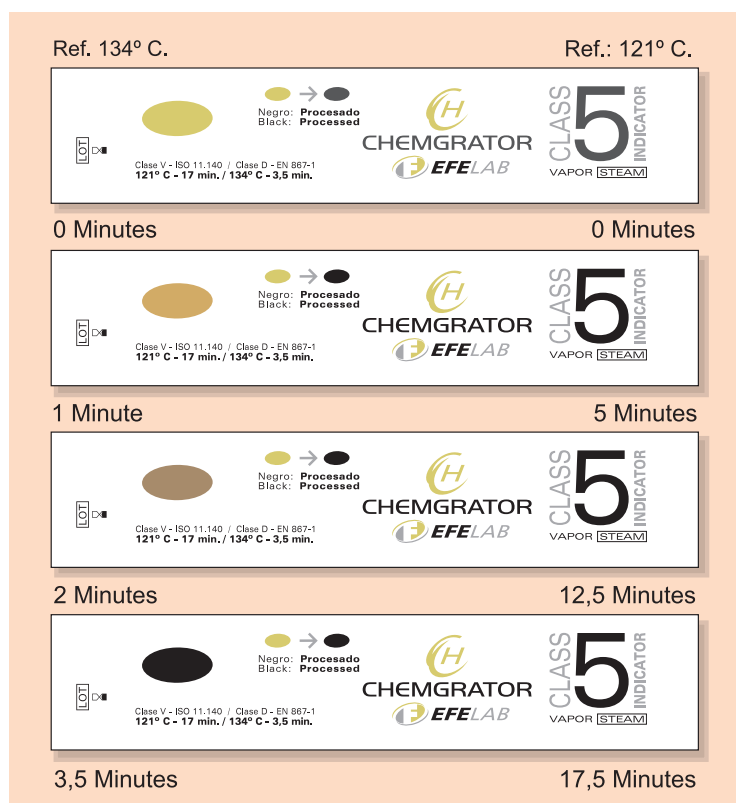
- \* Hi-quality indicator ink that meets the requirements for ISO 11140-1, EN-867 and IRAM- 37101-1. Class 4 standards.
- \* The indicator dot changes from blue to black and the starting and ending colors are printed in each indicator for an immediate interpretation of the results of the sterilization cycle.
- \* The change of color is irreversible. Hence it can be used as a record of the sterilization cycle.
- \* Suitable for regular and flash sterilization cycles.
- \* To be used in Steam sterilizer at 121°C -7 minutes or 134°C -1 minute.



Code / Catalogue No.: IV04



## Steam Sterilization Integrator Type 5



Code / Catalogue No.: IV05

CHEMGRATOR multiparameter indicators are specially designed to integrate the effects of time, temperature and saturated steam in sterilization processes.

The change of color of the integrator occurs in the presence of these three conditions, providing visual evidence immediately after if the sterilization conditions have been achieved during the cycle. This can be easily seen by the change of color of the indicator up to its reference color.

The images show different times and intermediate color changes of the integrator until the endpoint response.

### Main features

- \* Hi-quality indicator ink that meets the requirements for ISO 11140-1, EN-867 and IRAM 37101-1. Class 5 standards.
- \* A specially formulated ink changes from green to black and the starting and ending colors are printed in each integrator for an immediate interpretation of the results of the cycle.
- \* The color change is irreversible. Thus it can be used as a record of the sterilization cycle.
- \* Suitable for regular and flash sterilization cycles.
- \* To be used in a steam autoclave at 121°C-17 minutes or 134°C-3,5 minutes.
- \* Shelf Life: 60 months from its date of manufacture.

## Steam Sterilization Integrator Type 5 (IVDU Integration Point)

CHEMGRATOR indicators are specially designed to integrate the effects of time, temperature and steam quality in a sterilization processes. The color change of the integrator only occurs in the presence of these three conditions, thus providing immediate visual evidence if the necessary sterilization conditions were reached during the cycle. This can be noticed by the change of color of the indicator ink to its reference color.

\* Indicator ink developed to change its color when a theoretical population of 10.6 spores of *Geobacillus stearothermophilus* bacteria reaches its point of death, indicating that the indicator integration condition was reached.

\* The integration condition has been calculated in a BIER device (Biological Indicator Evaluator Resistometer).

\* High-quality indicator that meets the requirements of ISO 11140-1 Class or Type 5 and IRAM-37101-1 standards).

\* The integrator changes from purple to green and the initial and final colors have been printed on each integrator for an immediate interpretation of the cycle results.

\* The color change is irreversible, and can be used as a record of the sterilization cycle.

\* Use this product to verify steam sterilization cycles between 121° C and 135 ° C.

\* The integration condition is reached in steam sterilization processes as indicated in the quality certificate.

100% heavy metal free product.

\* Product Shelf-life: 60 months from the date of manufacture.



Code / Catalogue No.: IVDU

### Main features

- \* Easy reading and interpretation.
- \* Results available immediately after performing a sterilization cycle.
- \* Practical and easy to use.
- \* Reliable.
- \* Do not require laboratory culture.
- \* High-quality: meets the requirements of ISO 11140 Type 5 standards.



## Unique-Point Steam Sterilization Emulator Type 6

Ref: 134° C - 0 minutos 121° C - 0 minutos.



The reference images show the color changes of the emulator to its final point.

The product is available for different working methodologies:

Código/Catálogo:

EV35: 134°C - 3,5 minutos	EV09: 134°C - 9 minutes
EV05: 134°C - 5 minutes	EV18: 134°C - 18 minutes
EV07: 134°C - 7 minutes	EV20: 121°C - 20 minutes

To ensure that the sterilization process can be performed reliably, there are three parameters that must be controlled. Chemgrator emulators are designed to respond to all critical parameters of a steam sterilization cycle: time, temperature and saturated steam quality. The color change of the emulator only occurs in the presence of these three parameters thus providing immediate visual evidence if the necessary sterilization conditions were reached during the cycle. These emulators have optimal performance and have been designed for various sterilization times and cycles, many of them incorporated in last-generation autoclaves and in all those sterilizers that comply with ISO 13060 standards. Chemgrator emulators comply with high-quality standards proposed by ISO 11140, being the most reliable sterilization indicators in its type.

### Main features

- \* Easy readout and interpretation.
- \* Resultados disponibles inmediatamente después de realizar un ciclo de esterilización.
- \* Practical and easy-to-use.
- \* Realiable.
- \* Do not require laboratory culture.
- \* High-quality: complies with ISO 11140 type 6 standards.



## Sterilization Integrator for Ethylene Oxide Type 5

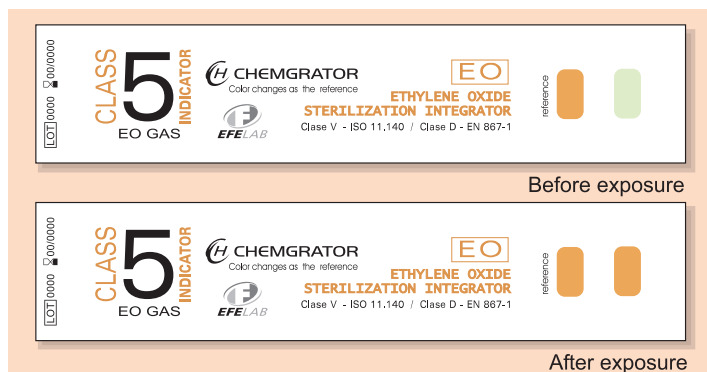
CHEMGRATOR Integrators are specially designed to integrate the ethylene oxide sterilization parameters: time, temperature, gas concentration and relative humidity.

The change of color of the integrator occurs in the presence of these four conditions, providing visual evidence immediately after if the conditions for sterilization have been achieved during the cycle.

This can be noticed by a progressive turn of color of the indicator ink up to its reference point. The images aside show intermediate changes of color of the integrator, at different times, until its endpoint response.

### Main features

- \* Hi quality indicator ink which meets the requirements for ISO 11140-1, EN-867 and IRAM 37101-1. Class 5 standards.
- \* The integrator changes from violet to green and the starting and ending reference colors are printed in each integrator for an immediate interpretation of the results of the cycle.
- \* The change of color is irreversible. Hence it can be used as a record of the sterilization cycle.
- \* To be used in ethylene oxide sterilization cycles at 600 mg EO / LT, 37°C or 99 ° F; 90 Min, 60% RH
- \* Shelf Life: 36 months from its date of manufacture.



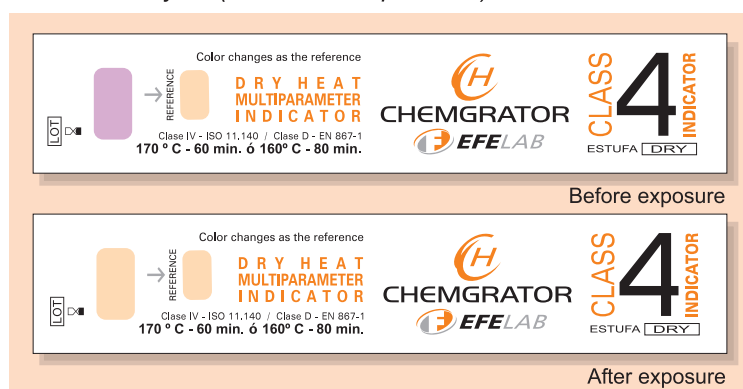
Code / Catalogue No.: IE05



## Multiparameter Indicator for Dry Heat Sterilization Type 4

CHEMGRATOR multiparameter indicators are designed to be used within the packages or specific locations within the sterilization chamber where the sterilizing agent cannot easily access.

The change of color of the multiparameter indicator occurs only in presence of all the critical parameters of a Dry Heat sterilization cycle (time and temperature).



### Main features

- \* Hi-quality indicator ink that meets the requirements for ISO 11140-1, EN-867 and IRAM 37101-1. Class 4 standards.
- \* The indicator changes from violet to orange and the starting and ending colors are printed in each indicator for an immediate interpretation of the results of the sterilization cycle.
- \* The change of color is irreversible. Hence it can be used as a record of the sterilization cycle.
- \* To be used in any Dry Heat sterilizers.

Code / Catalogue No.: IC04



## Formaldehyde Sterilization Multiparameter Indicator Type 4

CHEMGRATOR multiparameter indicators are designed to be used within the packages or specific locations within the sterilization chamber where the sterilizing agent cannot easily access.

The change of color of the multiparameter indicator occurs only in presence of all the critical parameters of a Formaldehyde sterilization cycle (time and temperature).

### Main features

- \* Hi quality indicator ink which meets the requirements for ISO 11140-1, EN-867 and IRAM 37101-1. Class 4 standard
- \* The integrator changes from pink to green and the starting and ending reference colors are printed in each integrator for an immediate interpretation of the results of the cycle.
- \* The change of color is irreversible. Hence it can be used as a record of the sterilization cycle.
- \* To be used in Formaldehyde sterilization cycles.



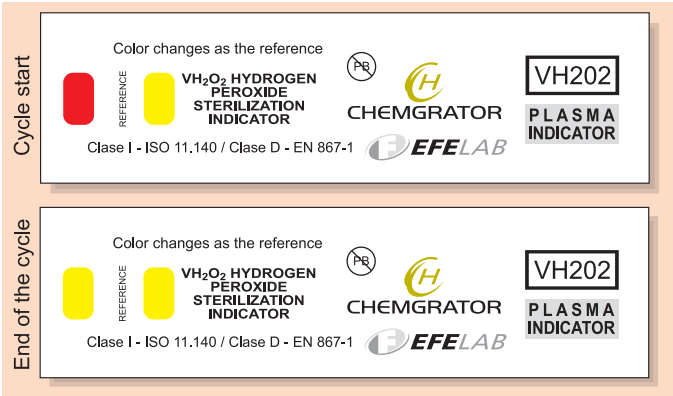
Code / Catalogue No.: IF04

## Hydrogen Peroxide Sterilization Indicator.

VH2O2 indicators are developed to react to all Hydrogen Peroxide critical paratemers of sterilization. The change of color of the indicator ink shall only occur in presente of these conditions, thus providing visual evidence immediately after the sterilization cycle. If sterilization conditions are met during the sterilization cycle the indicator ink will change its color up to its reference point.

### Main features

- \* Special indicator ink that meets the requirements of ISO 11140-1 EN-867 and quality standards.
- \* The indicator changes from color Red to Yellow and its final reference color is printed on every strip for an immediate interpretation of the sterilization cycle result.
- \* The change of color is irreversible, hence it can be used as a record of the sterilization cycle.
- \* To be used only in Hydrogen Peroxide sterilizers.
- \* Shelf life: 36 months from its manufacturing date .



## Self-Contained Sterilization Biological Indicators

TecSpores sterilization biological indicators are used to check the efficiency of a sterilization process. They are designed to confirm the presence or absence of viable microorganisms after the sterilization process. The biological indicator contains spores that are the most resistant to the sterilization method used. Available for Humid Heat (steam), Flash Vapor, Ethylene Oxide and Hydrogen Peroxide. The indicators contain bacterial spores in supported on a filter paper, inside a thermoplastic container. There also resides an ampoule that with a soybean casein culture medium specially formulated with a color indicator that changes to yellow if they are expected to develop. Tecspores indicators provide visual results in 24 Hs. (Steam and hydrogen peroxide) or 48 hours (ethylene oxide).

If the process was not successful, the indicator media will change color from purple to yellow (incubation at 55°-60C), indicating the presence of live spores of Geobacillus stearothermophilus. If the process was correct, it will remain purple, and the final reading will be carried out after 24 hours. of incubation. (STEAM)

If the process was not successful, the indicator media will change color from purple to translucent (incubation at 34°-37 C), indicating the presence of live spores of Bacillus atrophaeus. If the process was correct, it will remain purple, with the final reading after 48 hours. of incubation. (EO)

### Main features

- \* They are easy to use.
- \* The results in 24 hours (Steam) and 48 hours (EO).
- \* They do not require a special laboratory for cultivation.
- \* Products manufactured under ISO 11138, ISO 9001, ISO 13485 and GMP quality standards. Product comes along with population certification,Z value, D value, performance and ATCC number.



PRODUCT CODE	CONTENT	STERILIZATION TYPE
BIS-C5	100 units	STEAM
BIS-C520	20 units	STEAM
BIE-C6	100 units	ETHYLENE OXIDE (EO)
BIE-C620	20 units	ETHYLENE OXIDE (EO)

## Sterilization Indicator Strips Type I, ISO 11140



Sterilization Indicator Strips are used to identify several packages or materials to be sterilized. EFELAB strips are printed with a high-performance sterilization indicator ink that changes its color after being exposed to adequate conditions in a sterilization cycle. Available for Steam, Dry Heat and Ethylene Oxide (EO) sterilization processes.

### Main features

- \* High fidelity sterilization indicator inks.
- \* Strips printed with information related to the sterilization process for which the product has been developed for and the target color the ink will show after being exposed.
- \* Container boxes printed with product lot and expire date for a correct product traceability.
- \* 250 strips per box (500 sterilization indicators).

CODE / CATALOGUE No.	DIMENSIONS	STERILIZATION PROCESS
5561	11 m. x 105 mm.	Steam
5621	11 m. x 105 mm.	Dry heat
5000	11 m. x 105 mm.	Ethylene Oxide

## Sterilization Indicator Labels Type I, ISO 11140

Sterilization Indicator labels are used to identify several packages or materials to be sterilized. EFELAB indicator labels are printed with a high-performance sterilization indicator ink that shows a dramatic color change after being exposed to adequate sterilization conditions. Available for Steam, Dry Heat and Ethylene Oxide (EO) sterilization processes.

### Main features

- \* Adhesive paper that provides good adhesiveness even at high temperatures.
- \* Reliable sterilization indicator Inks.
- \* Labels are imprinted with information related to the sterilization process for which the product has been developed and indicate the target color the ink will turn after being exposed.
- Labeler machines can be used with these labels to make their application faster and easier
- 1000 labels per roll of 26 mm. x 16 mm.

CODE / CATALOGUE No.	DIMENSIONS	STERILIZATION PROCESS
2005	16 m. x 26 mm.	Steam
2008	16 m. x 26 mm.	Dry heat
2000	16 m. x 26 mm.	Ethylene Oxide



### Labeler Machines

Labeler machines can be used with indicator labels thus making their application -and so the identification of materials- faster and easier. In addition, labeler machines can print a date and lot number over the label, allowing the user to have a proper traceability of the packages.

Labeler machines are economic, reliable and easy to use and require low maintenance. This model is suitable for 26 x16 mm sterilization indicator labels.



## Bowie-Dick Test Pack

Bowie-Dick test packs are designed for daily monitoring of vacuum-pump-assisted steam sterilizers and pre-vacuum cycles. It detects leaks, inadequate steam penetration, air bubbles and malfunction or failure in the vacuum-pump.

### Main features

- \* **Interpretation of result by the changing of color of chemical ink:** The high-performance chemical indicator ink changes to black after being adequately processed and it shows no color change towards the center of the indicator in case of leaks, air bubbles or insufficient vacuum within the sterilizer.
- \* **Meets the highest international quality standards:** The features of the chemical ink and the design of the package meet the specifications of high performance. Designed and manufactured under UNE EN 867 Part 4 norm CE and ISO 11140-1, Class II standards.
- \* **Design of printing on lines and indicator of process:** To distinguish leaks, air bubbles or insufficient vacuum within the sterilizer easily external sterilization indicator shows if the test pack has been processed.
- \* **Permanent change of color:** It can be used as a record of the sterilization cycle.

CODE / CATALOGUE No.	DIMENSIONS	PRESENTATION
TP01	125 mm. x 125 mm.	1 Bowie Dick test pack
TP02	119 mm. x 108 mm.	1 Bowie Dick test pack



Ref. TP 01  
Ref. TP 02 (Creped paper)



## Bowie-Dick Test Sheets

Bowie Dick test sheets are designed for daily monitoring of vacuum-pump-assisted steam sterilizers and pre-vacuum cycles. It detects leaks, inadequate steam penetration, air bubbles and malfunction or failure in the vacuum-pump.

### Main features

- \* The high performance chemical indicator ink changes to black after being adequately processed.
- \* Permanent change of color that allows keeping the test as a record of the sterilization cycle.
- \* Designed under UNE EN 867 Part 4 norm CE.
- \* It provides security in the daily monitoring of the steam sterilizer.
- \* Optimum quality. Manufactured under ISO 11140-1, Class II standards.

CODE / CATALOGUE No.	DIMENSIONS	PRESENTATION
3670	21 cm. x 29,7 cm.	Envelope with 50 Bowie-Dick test sheets

## Sterilization Indicator Tapes

Printed with a high quality chemical indicator inks that show a notorious color change after being exposed to proper sterilization conditions. Therefore they show the operator that the materials have been processed. Available for different sterilization processes: Steam, Dry Heat and Ethylene Oxide.

### Main features

- \* They are printed with a high quality indicator inks and they show the operator that the material has been processed.
- \* They are used to fasten different sterilization wrapping material easily.
- \* Rubber-based special adhesive that provides high adhesiveness at high temperatures.
- \* Lacquer on surface to facilitate unrolling
- \* Every tape is printed in the inner cone with type of sterilization process to be used and with the color the indicator ink turns to, thus avoiding misunderstandings.
- \* They are economic regarding to other types of sterilization indicators



COD. / CATALOGUE No.	DIMENSIONS	STERILIZATION PROCESS
3016	50 m. x 18 mm.	Ethylene oxide
3017	50 m. x 18 mm.	Steam
3020	50 m. x 18 mm.	Dry heat
3035	50 m. x 18 mm.	Hydrogen Peroxide

## Polyethylene Film for EO

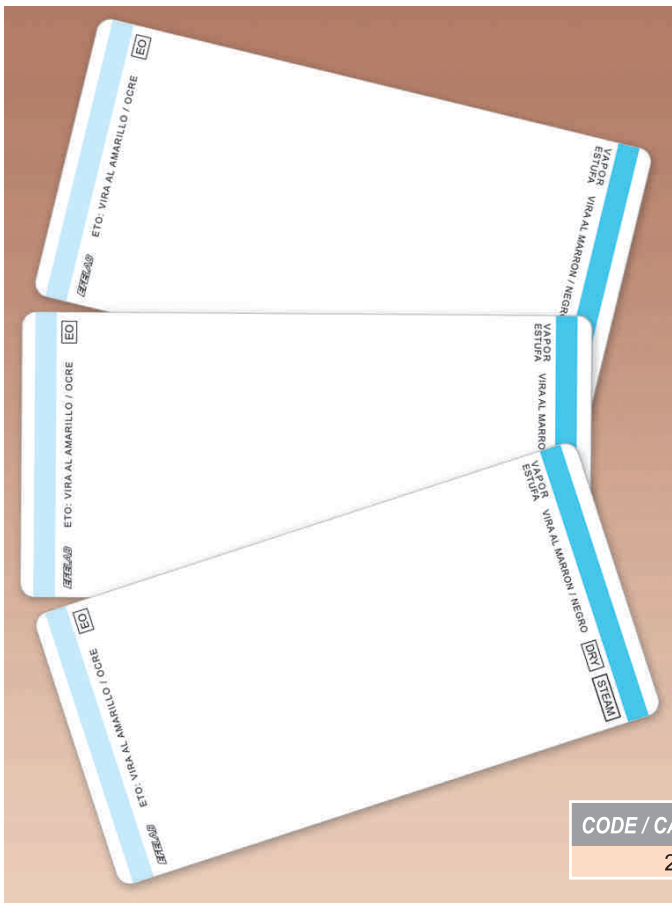
With built-in sterilization indicator for Ethylene Oxide (EO)

*EFELAB polyethylene film has accelerated the preparation of materials to be processed as it incorporates an imprinted highly reliable sterilization indicator. Its color change is very noticeable as it turns from violet to light green after being exposed to proper EO gas sterilization conditions.*

### Main features

- \* As it is a transparent packaging it allows to easily see the contained materials.
- \* It provides sterilized materials with a long-lasting maintenance period
- \* It allows the operator to properly adjust the packaging length
- \* It is an inexpensive alternative compared to other sterilization wrapping materials

Code / Catalogue N° PE06 - PE08 - PE10 - PE15 - PE20 - PE30 - PE40.



## Indicator Labels for Coding System

*The indicator labels for coding systems were designed to label materials in printing and coding systems and to identify materials that should be submitted to sterilization processes for Steam, Ethylene Oxide and Dry Heat reacting to all critical variables specified in the Norm ISO 11140-1. They are compatible with all ribbons printers and coding systems available in the market.*

*Each adhesive label has a size of 80 MM length by 40 MM width and its presentation is 1000 labels per roll. The labels incorporate a special adhesive glue that provides higher adherence when it is submitted to high temperature sterilization cycles.*

*It incorporates sterilization indicators for dry heat/steam and ethylene oxide.*

CODE / CATALOGUE No.	DIMENSIONS	PRESENTATION
2080	80 mm. x 40 mm.	1.000 labels per roll

## Filters and Full Face Protective Mask for Ethylene Oxide (EO)

The filter 90 AX offers a specific protection for ethylene oxide, gases and toxic vapors. This filter results an economic and secure option to the personnel of applications for the health, gases, chemical substances and dangerous substances.

### Main features

- \* Protection against risk of toxic atmosphere (IPSH) and atmosphere (No IPHS) and bothered odors.
- \* The product meets the requirements for: EN 371 (AX) and 141 (ABEK).
- \* The model is compatible with the Advantage mask of MSA.
- \* The conjunct offers visual and respiratory protection.

**Code / Catalogue**  
**No.: 6004**



### Exposure times allowed according to the concentration of gas:

- Gr.1: 100 ml/m<sup>3</sup> max 40 min.
- Gr.1: 500 ml/m<sup>3</sup> max 20 min.
- Gr.2: 1000 ml/m<sup>3</sup> max 60 min.
- Gr.2: 5000 ml/m<sup>3</sup> max 20 min.

The filters  
can be used  
with different kinds  
of masks.

**Advantage full face  
protective mask**



**Code / Catalogue**  
**No.: 6001**



**The Safety Company**

## Protection Gloves



**Code / Catalogue**  
**No.: 6005**

### 1 - For High Temperatures

**TERRYCLOTH of KEVLAR:** To handle metallic surfaces, cutting elements and hot objects. Length 35, 40 and 50 cm. Seamless, ambidextrous. Comfortable indoor and thermal insulation. Fist in Terrycloth or in peeling that allows the operator the operator to remove the gloves quickly.

Thanks to the fabric 100% Kevlar, it has an excellent mechanical resistance to the cuts.



**Code / Catalogue**  
**No.: 6000-1**

### 3- Neoprene (Protection against EO)

To handle polyvalent chemical products, specially recommended for ethylene oxide (EO). Reinforced thickness. Natural latex of rubber on Neoprene. Thickness: 0,60 mm. Length: 32 cm.

Non-slip. Chlorinated inner finish of comfortable and absorbent cotton.

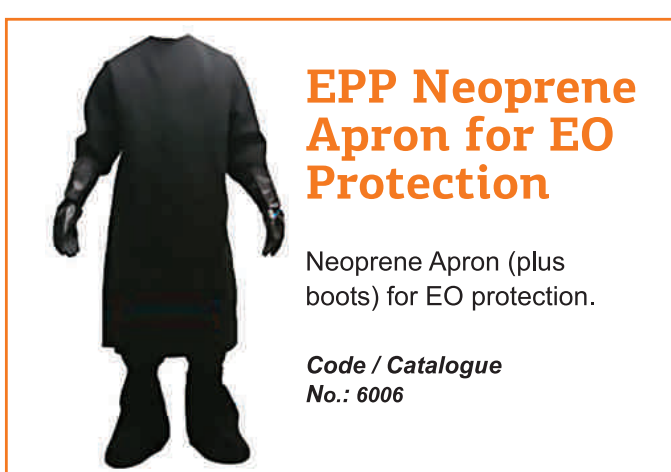


**Code / Catalogue**  
**No.: 6000**

### 2- Neoprene (Protection against EO)

**CHEMI-PRO:** To handle processed materials with ethylene oxide (EO) without sleeves and chemical substances. Neoprene is on natural latex of rubber. Thickness: 0,27 mm, length: 33 cm (longer than normal gloves – greater protection of the forearm).

Mesh in relief with diamond shape that offers greater grip in dry or wet surfaces. Cotton lining that absorbs transpiration and offers comfort to the worker.



## EPP Neoprene Apron for EO Protection

Neoprene Apron (plus boots) for EO protection.

**Code / Catalogue**  
**No.: 6006**

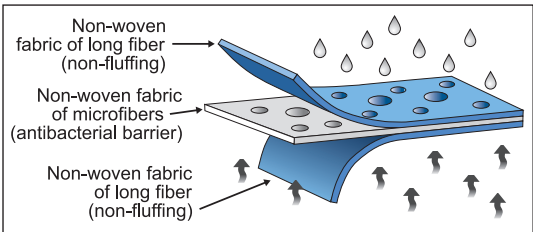
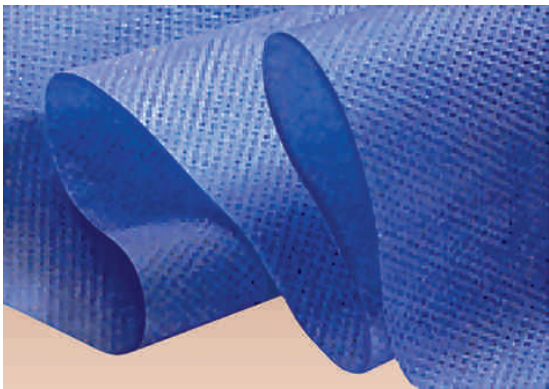


## Non-woven Fabric for Esterilization

This fabric is manufactured with 100% of Polypropylene. The process consists on the extrusion of the polymer in a worm screw; creating a molten paste through friction and temperature. Later, this paste goes through a rectangular head with thousands of minimum holes where it creates long and continuous multifilaments of polypropylene. After that, they are cooled in a chamber and placed in a conveyer belt that carries to a calendaring that uses pressure and temperature to heat seal the threads. A cloth with the required dimensional stability, excellent mechanical properties and good air permeability is obtained.

### Main features

- \* Excellent tensile strength, tear strenght and elongation.
- \* Guarantees an antibacterial barrier on its entire surface, it prevents the passage of the pathogens to the blood.
- \* Efficiency of filtration Bacilus Subtilus > 99 %
- \* Permeability to the blood <2% and the particles > 7 mm.
- \* Antistatic, removes any type of interference with the equipment inside the surgery.
- \* Excellent air permeability, guarantees the comfort of the doctor and the patient.
- \* Inflammability: up to a maximum length of 1.75" is catalogued as class 1 evaluated through Test UFAC as fabric cover.



SPECIFICATIONS Parameter	Value	TOLERANCE		VALUES	
		Higher	Lower	Max.	Min.
Total Weigh (gr./m2)	50	10%	-10%	55	45
Longitudinal Resistance (gf/ inch)	5300	10%	-10%	5830	4770
Longitudinal Resistance (gf/ inch)	3000	10%	-10%	3300	2700



LCD digital display  
**Code / Catalogue 3700**

## Incubator for Biological Indicators

This incubator has been specially designed for the incubation of biological indicators for Steam and Ethylene oxide (EO) and enables a simple readout of the temperature of incubation through its digital display.

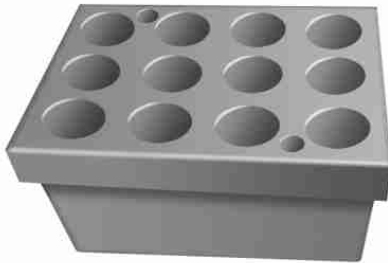
### Main features

- \* It has several holes to place biological indicators into and the carrier blocks are interchangeable. Carrier blocks are available in different sizes and are applicable to many types of biological indicators and brands available in the market.
- \* Lower weight of the device and better diffusion of the temperature due to its aluminum block (carrier).
- \* The operator can select the temperature and desired time of incubation and allows to store up to ten programs of incubation in its memory.
- \* It operates to 12V to get an easy transportation of the device.

Specifications				
Code / Catalogue No.:	3701	Time of heating:	(20°C a 57°C)=6min	
Time range:	1min~99h 59min	Precision of temperature control:	a 57°C 0.35°C	
Control of precision of the temperature:	±0.5°C	Dimensions	110 x 150 x 80 mm.	
Precision of the display:	0.1°C	Net weight:	0.5kg	
		Power supply:	AC100-240V, 50/60 Hz, 0.5A	

### Dry carrier blocks for incubator

CODE	TYPE	DESCRIPTION
AS-01	A	15 x ø 10 mm.
AS-02	B	15 x ø 12 mm.
AS-06	C	18 x ø 9 mm.



## Ethylene Oxide Gas Monitor

Without Data Logger (DE05)  
With Data Logger (DE06)

Real time Ethylene Oxide Detector is the solution for continuous monitoring of CSSD with EO GAS sterilization facilities. The continuous measurement sensor allows obtaining real-time reading, incorporating a data recording system (data logger) and generating external reports providing the user permanent monitoring of the area. The frame of the device is illuminated in reference colors to inform the user the values measured by the device, showing a green color (if the device is below the configured alarm threshold) or a red color (if the alarm threshold is reached or exceeded).

### Principales Características:

- \* Easy to install, it can be located in any sector of the plant as a monitor of areas where the equipment is installed.
- \* Data logger system that allows continuous control of EO concentration in the area where it is installed.
- It allows exporting data, events and records through associated software.
- \* Data extraction by USB port (DE06).
- \* Generate charts and external reports (DE06).
- \* It has a bright viewfinder that indicates the concentration of ETO expressed in PPM and has a measuring range of 0-99 PPM.
- \* User adjustable alarm threshold. Visual and audible alarm greater than 50 DB announcing that this value has been reached.
- \* It works at low voltage (5V) via USB port being easy to connect to the power supply through a switching source (included).
- \* Useful monitoring area of up to 20 square meters.
- \* The monitor sensor has a lifespan of up to 5 years, and can be replaced by another sensor.
- \* Complies with IRAM / IEC electrical safety standards.



**Device is delivered calibrated and with its corresponding certificate.**



Since 1984 our company is dedicated to the development and manufacturing of sterilization supplies. We work following international quality standards and due to a constant technical evolution we have managed to produce safe and effective products which we provide to sterilizations professionals and technicians of CSSD worldwide through a network of distributors. Among other products we produce and supply: ethylene oxide cartridges and ampoules, indicators and integrators for sterilization, sterilization reels and pouches, sterilization packaging and ethylene oxide gas detectors.

Our company is authorized by A.N.M.A.T. (Argentinean Drugs and Medical Technology Administration) and meets the requirements GMP quality management systems. This is one of the aims relating to the quality management of our company. Additionally, we have implemented ISO 9001-2008 and ISO 13485-2005 for the manufacture of all our products.



**A 30-year history...**  
In constant commitment with quality.



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