



**Kayo Research and Innovation Corporation**

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# **Infection Prevention and Control**

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**Think Infection Free?  
Think Kayo!**



**Chemical Indicators**

**Biological Indicators**

**Accessories (BET)**

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**SOLUTIONS  
FOR  
PHARMA**

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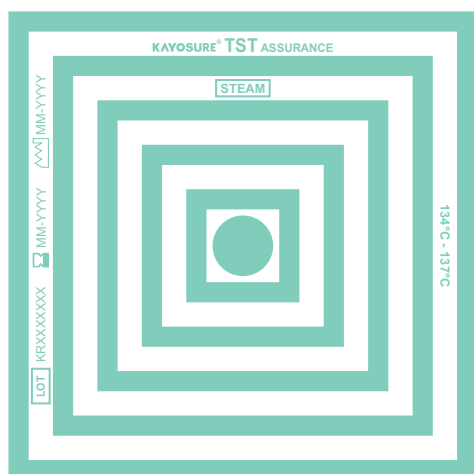
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# CHEMICAL INDICATORS

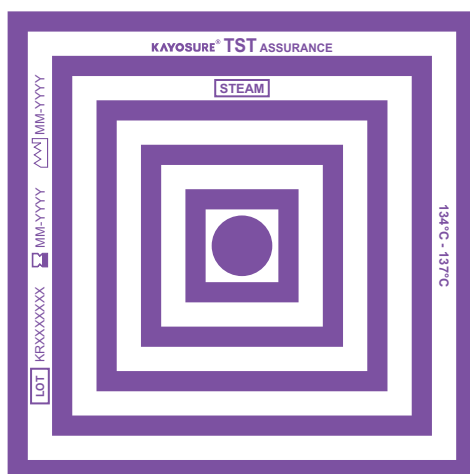
## KAYOSURE TST ASSURANCE BOWIE DICK TEST PACK- 134°C - 137°C FOR 3.5 MINS.

The **KAYOSURE** Air Removal Bowie Dick Test Pack is for daily monitoring of pre-vacuum steam sterilizers operating at 134°C - 137°C for 3.5 minutes.

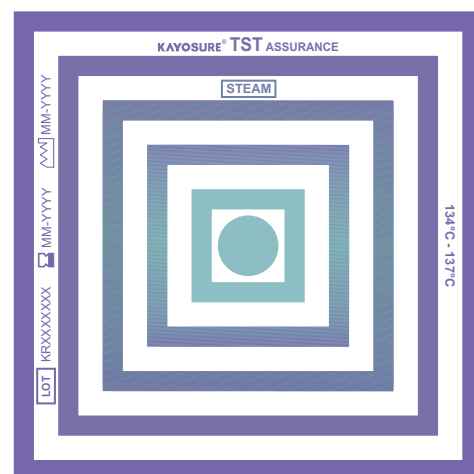
- **CAT. NO.: KK 4545 - 3.5**
- 134°C - 137°C for up to 3.5 minutes.
- Indicator Ink Lead Free.
- Color Change - Green to Purple
- Comply with ISO 11140-4, TYPE 2.
- Indicator Sheet can be kept for Record.



**Unexposed**



**Pass**



**Fail**

### Interpretation :

1. The **PASS** result is a universal Purple colour all over the uniform pattern of the indicator sheet.
2. The **FAIL** condition will not be uniform colour in the center or edges and some Green shade will exist over the sheet.

Catalog No.	Description	Pack Size	Shelf Life
KK 4545 - 3.5	<b>KAYOSURE</b> TST Assurance-3.5	20 Nos./Carton	36 Months

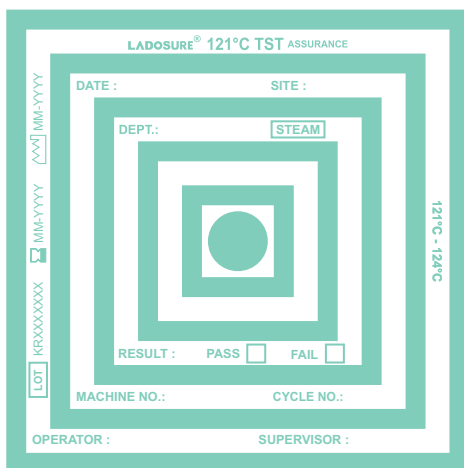
# LADOSURE 121°C TST ASSURANCE BOWIE DICK TEST PACK- 121°C FOR 8.3 MINS.

The **LADOSURE 121°C TST Assurance** Bowie Dick Test Paper is for daily monitoring of pre-vacuum steam sterilizers operating at 121°C for 8.3 minutes.

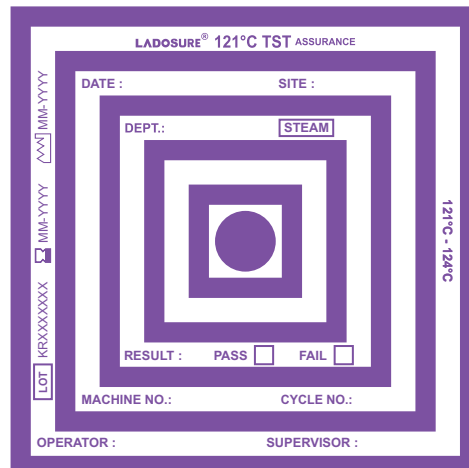
- **CAT. NO.: KK 6363 - 8.3**
- 121°C for 8.3 minutes.
- Indicator Ink Lead Free.
- Color Change - Green to Purple
- Comply with ISO 11140-4, TYPE 2.
- Indicator Sheet can be kept for Record.



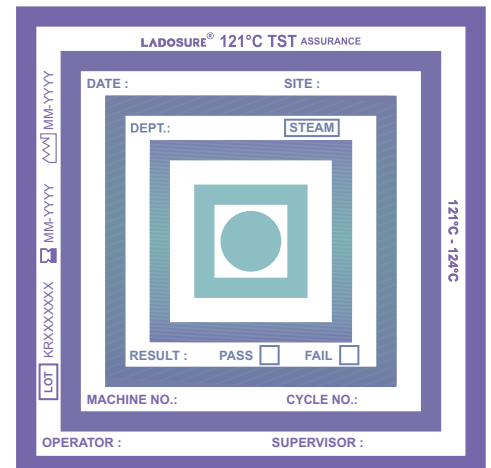
Ladosure 121°C TST Assurance use for **7 KG. Sterilization Load**



**Unexposed**



**Pass**



**Fail**

## Interpretation :

1. The **PASS** result is a universal Purple colour all over the uniform pattern of the indicator sheet.
2. The **FAIL** condition will not be uniform colour in the center or edges and some Green shade will exist over the sheet.

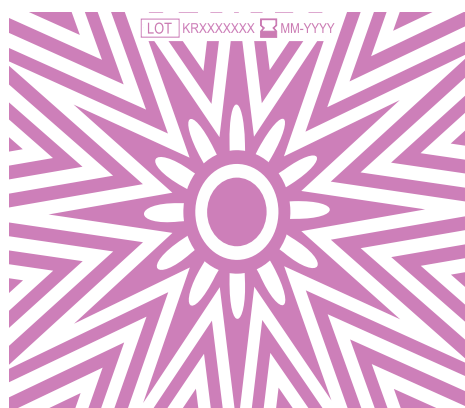
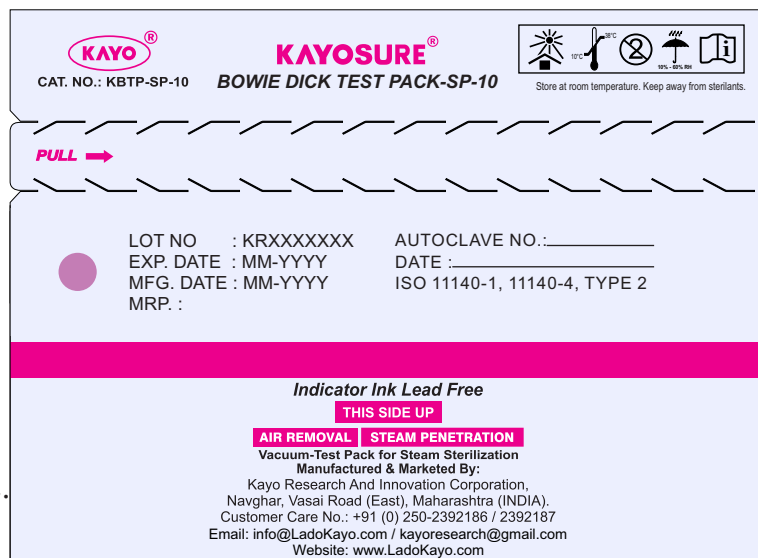
Catalog No.	Description	Pack Size	Shelf Life
KK 6363 - 8.3	LADOSURE 121°C TST Assurance-8.3	20 Nos./Carton	36 Months



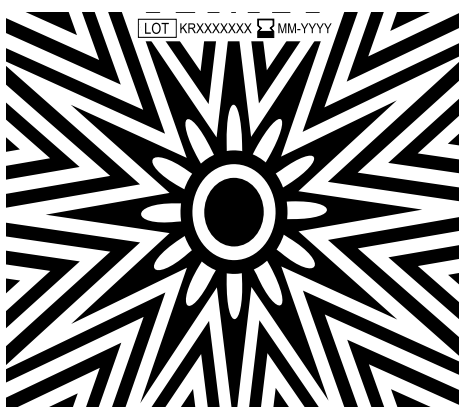
# KAYOSURE BOWIE DICK TEST PACK-SP-10

The **KAYOSURE** Air Removal Bowie Dick Test Pack is for daily monitoring of pre-vacuum steam sterilizers operating at 121°C for 10 minutes or 134°C for 3.5 minutes.

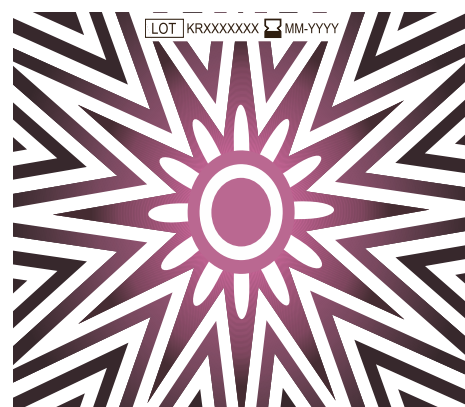
- **CAT. NO.: KBTP-SP-10**
- 121°C for 10 mins or 134°C for 3.5 mins.
- Indicator Ink Lead Free.
- Color Change - Pink to Black
- Comply with ISO 11140-1, 11140-4, TYPE 2.
- Indicator Sheet can be kept for Record.



**UNEXPOSED**



**PASS**



**FAIL**

## Interpretation


1. The **PASS** result is a universal Black color all over the uniform pattern of the indicator sheet.
2. The **FAIL** condition will not be uniform color in the center or edges and some pink shade will exist over the sheet.

Catalog No.	Description	Pack Size	Shelf Life
KBTP-SP-10	Bowie Dick Test Pack-SP-10	120 Nos./Carton	36 Months

# KAYOSURE BOWIE DICK TEST PACK-11

The **KAYOSURE** Air Removal Bowie Dick Test Pack is for daily monitoring of pre-vacuum steam sterilizers operating at 121°C for 11 minutes.


- **CAT. NO.: KBTP-11**
- 121°C for 11 minutes.
- Indicator Ink Lead Free.
- Color Change - Pink to Black
- Comply with ISO 11140-1, 11140-4, TYPE 2.
- Indicator Sheet can be kept for Record.



**KAYO**<sup>®</sup>

**KAYOSURE<sup>®</sup>**

**BOWIE DICK TEST PACK- 11**



Store at room temperature. Keep away from sterilants.

CAT. NO.: KBTP - 11

**PULL →**

LOT NO : KRXXXXXX

EXP. DATE : MM-YYYY

MFG. DATE : MM-YYYY

MRP. :

AUTOCLAVE NO.: \_\_\_\_\_

DATE : \_\_\_\_\_

ISO 11140-1, 11140-4, TYPE 2

**Indicator Ink Lead Free**

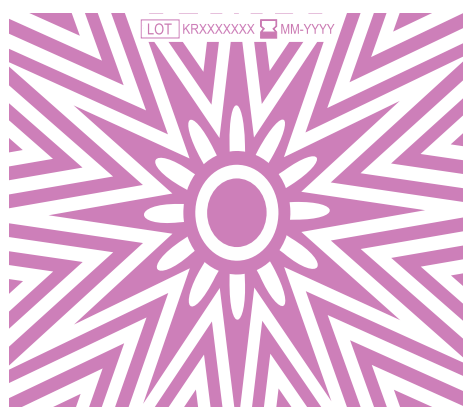
**THIS SIDE UP**

**AIR REMOVAL**
**STEAM PENETRATION**

**Vacuum-Test Pack for Steam Sterilization**

**Manufactured & Marketed By:**

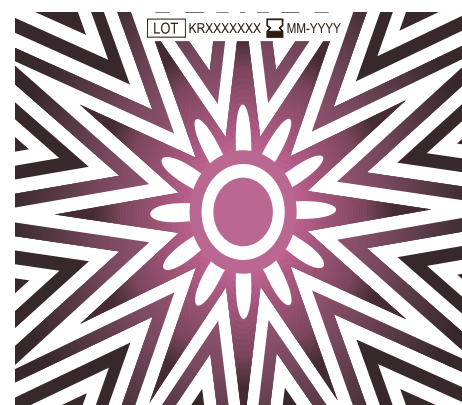
Kayo Research And Innovation Corporation,  
 Navghar, Vasai Road (East), Maharashtra (INDIA).  
 Customer Care No.: +91 (0) 250-2392186 / 2392187  
 Email: info@LadoKayo.com / kayoresearch@gmail.com  
 Website: www.LadoKayo.com



**UNEXPOSED**



**PASS**



**FAIL**

## Interpretation

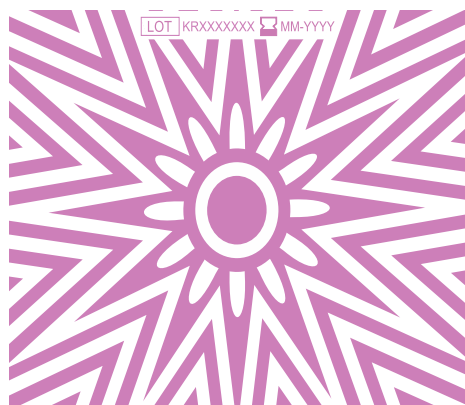
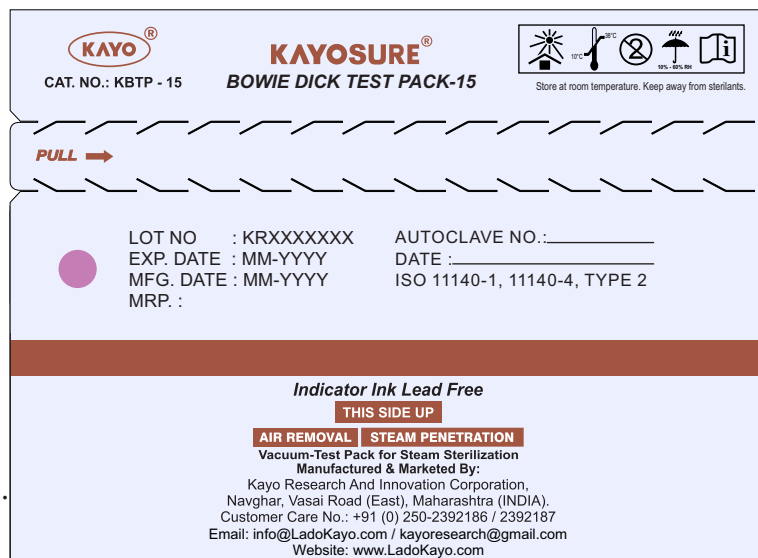
1. The **PASS** result is a universal Black color all over the uniform pattern of the indicator sheet.
2. The **FAIL** condition will not be uniform color in the center or edges and some pink shade will exist over the sheet.

Catalog No.	Description	Pack Size	Shelf Life
KBTP-11	Bowie Dick Test Pack-11	120 Nos./Carton	36 Months

# KAYOSURE BOWIE DICK TEST PACK-15

The **KAYOSURE** Air Removal Bowie Dick Test Pack is for daily monitoring of pre-vacuum steam sterilizers operating at 121°C for 15 minutes.

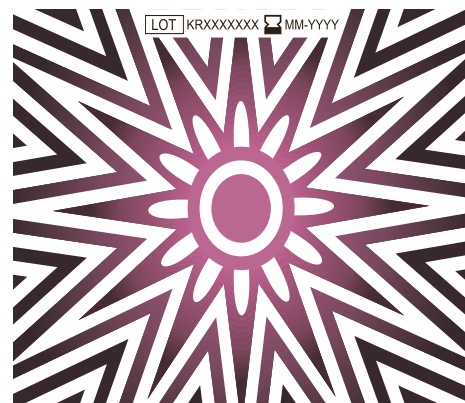
- **CAT. NO.: KBTP-15**
- 121°C for 15 minutes.
- Indicator Ink Lead Free.
- Color Change - Pink to Black
- Comply with ISO 11140-1, 11140-4, TYPE 2.
- Indicator Sheet can be kept for Record.



**UNEXPOSED**



**PASS**



**FAIL**

## Interpretation


1. The **PASS** result is a universal Black color all over the uniform pattern of the indicator sheet.
2. The **FAIL** condition will not be uniform color in the center or edges and some pink shade will exist over the sheet.

Catalog No.	Description	Pack Size	Shelf Life
KBTP-15	Bowie Dick Test Pack-15	120 Nos./Carton	36 Months

# KAYOSURE BOWIE DICK TEST PACK-16.9


The **KAYOSURE** Air Removal Bowie Dick Test Pack is for daily monitoring of pre-vacuum steam sterilizers operating at 121°C for 16.9 minutes.

- **CAT. NO.: KBTP-16.9**
- 121°C for 16.9 minutes.
- Indicator Ink Lead Free.
- Color Change - Blue to Black
- Comply with ISO 11140-1, 11140-4, TYPE 2.
- Indicator Sheet can be kept for Record.



**KAYO®**  
CAT. NO.: KBTP - 16.9

**KAYOSURE®**  
**BOWIE DICK TEST PACK-16.9**



Store at room temperature. Keep away from sterilants.

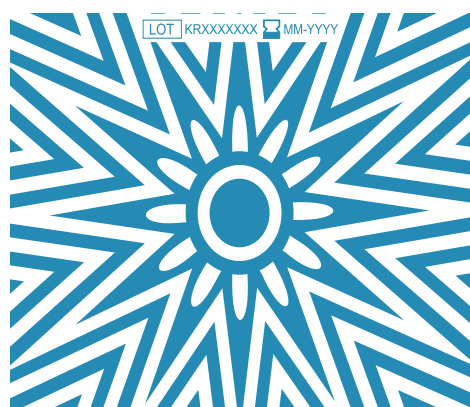
**PULL →**

LOT NO : KRXXXXXX  
EXP. DATE : MM-YYYY  
MFG. DATE : MM-YYYY  
MRP. :

AUTOClave NO.: \_\_\_\_\_  
DATE : \_\_\_\_\_  
ISO 11140-1, 11140-4, TYPE 2

**Indicator Ink Lead Free**  
**THIS SIDE UP**

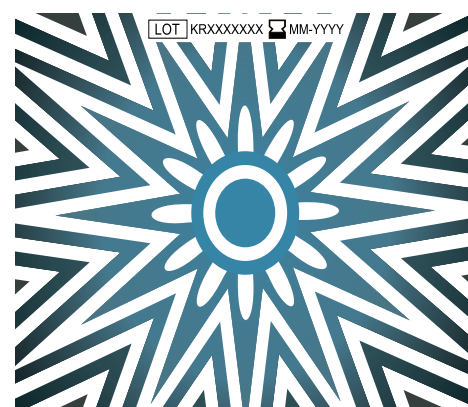
**AIR REMOVAL | STEAM PENETRATION**  
Vacuum-Test Pack for Steam Sterilization  
Manufactured & Marketed By:  
Kayo Research And Innovation Corporation,  
Navghar, Vasai Road (East), Maharashtra (INDIA).  
Customer Care No.: +91 (0) 250-2392186 / 2392187  
Email: info@LadoKayo.com / kayoresearch@gmail.com  
Website: www.LadoKayo.com



**UNEXPOSED**



**PASS**



**FAIL**

## Interpretation

1. The **PASS** result is a universal Black color all over the entire pattern of the indicator sheet.
2. The **FAIL** condition will not be uniform color in the center or edges and some Blue shade will exist over the sheet.

Catalog No.	Description	Pack Size	Shelf Life
KBTP-16.9	Bowie Dick Test Pack-16.9	120 Nos./Carton	36 Months

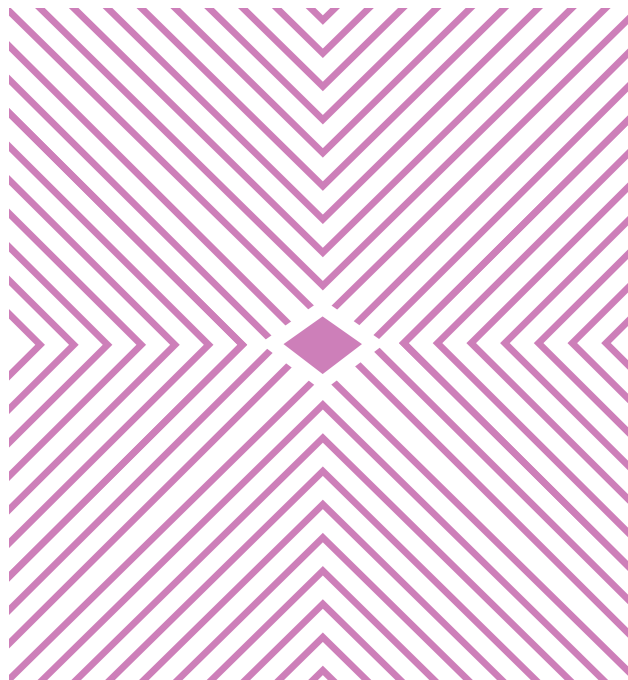


# KAYOSURE BOWIE DICK TEST PAPER A4

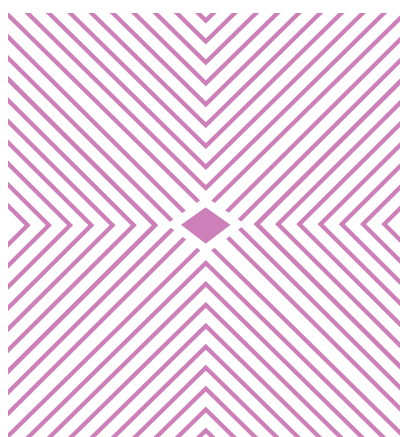
The **KAYOSURE** Bowie Dick Test Paper is for daily monitoring of pre-vacuum steam sterilizers operating at 121°C for 10 minutes and 134°C for 3.5 minutes.

- **CAT. NO.: KBTP-10-A4**
- 121°C for 10 minutes & 134°C for 3.5 minutes.
- Indicator Ink Lead free.
- Color Change - Pink to Black
- Comply with ISO 11140-1, 9001: 2015 TYPE 2.
- Indicator Sheet can be kept for Record.

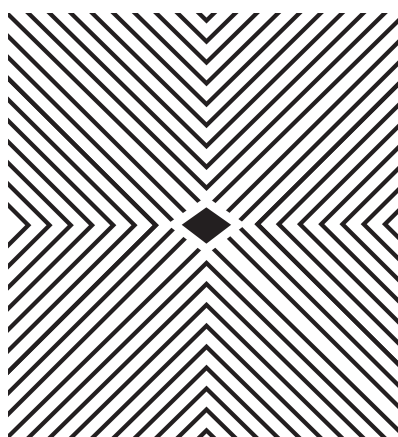
**KAYO®** **KAYOSURE®**  
BOWIE DICK TEST PAPER  
Indicator Ink Lead Free **STEAM** 121°C 10 MIN ☐  
CAT.NO.: KBTP-10-A4 134°C 3.5 MIN ☐



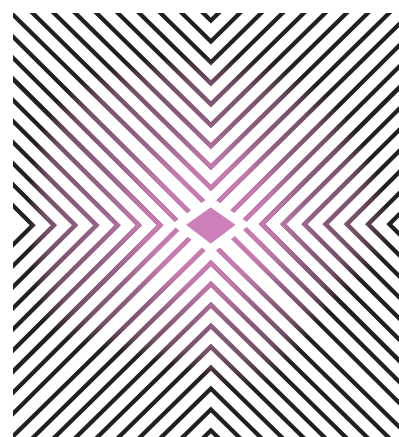
Date \_\_\_\_\_ Autoclave No. \_\_\_\_\_ Site \_\_\_\_\_ Cycle No. \_\_\_\_\_  
Operator \_\_\_\_\_ Supervisor \_\_\_\_\_ Department \_\_\_\_\_ Result \_\_\_\_\_  
ISO 11140-1, ISO 9001: 2015 TYPE 2 ☐ LOT KRXXXXXX ☐ MM-YYYY ☐ MM-YYYY



**UNEXPOSED**



**PASS**



**FAIL**

## Interpretation :

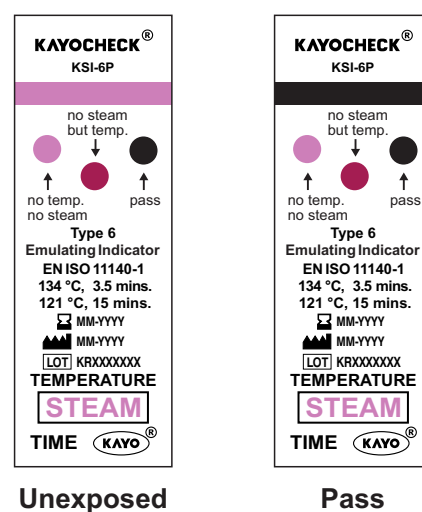
1. The **PASS** result is a universal Black colour all over the uniform pattern of the indicator sheet.
2. The **FAIL** condition will not be uniform colour in the center or edges and some pink shade will exist over the sheet.

Catalog No.	Description	Pack Size	Shelf Life
KBTP-10-A4	Bowie Dick Test Paper A4	10 Pack of 100 Nos./Carton	36 Months

# KAYOCHECK CHEMICAL PROCESS INDICATORS STERILIZATION

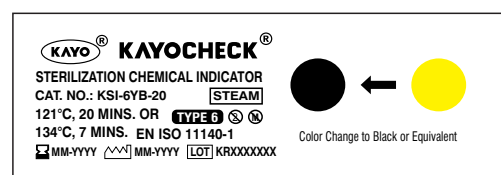
## KAYOCHECK Emulating Indicator for STEAM, Type 6

- **CAT. NO.: KSI-6P**
- Monitors Critical Parameters of Steam.
- 134°C for 3.5 mins. or 121°C at 15 mins.
- Color Change - Pink to Black.
- Comply with ISO 11140-1, TYPE 6.
- Strip size - 23mm X 66mm

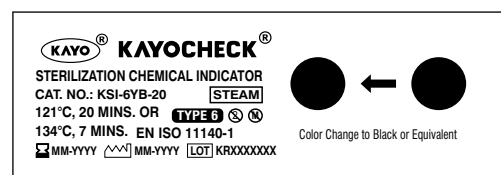


## KAYOCHECK Sterilization Chemical Indicator, STEAM, Type 6

- **CAT. NO.: KSI-6YB-20**
- Monitors Critical Parameters of Steam.
- 121°C at 20 mins. or 134°C for 7 mins.
- Color Change - Yellow to Black.
- Comply with ISO 11140-1, TYPE 6.
- Strip size - 23mm X 66mm



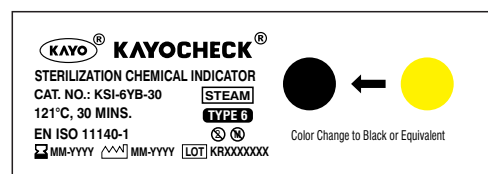
Unexposed



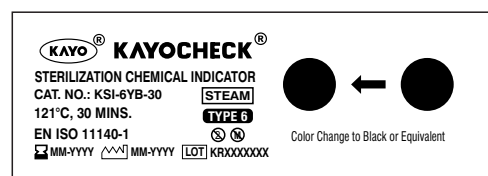
Pass

## KAYOCHECK Sterilization Chemical Indicator, STEAM, Type 6

- **CAT. NO.: KSI-6YB-30**
- Monitors Critical Parameters of Steam.
- 121°C at 30 mins.
- Color Change - Yellow to Black.
- Comply with ISO 11140-1, TYPE 6.
- Strip size - 23mm X 66mm



Unexposed

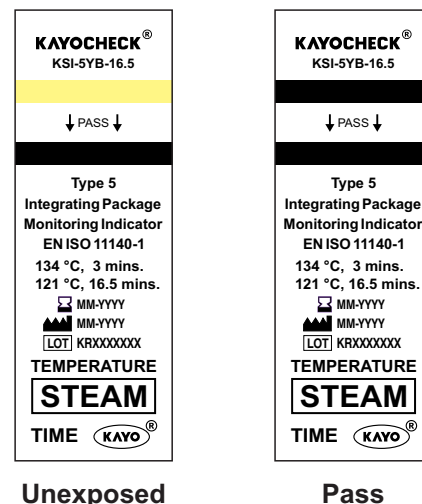


Pass

Catalog No.	Description	Pack Size	Shelf Life
KSI-6P	<b>KAYOCHECK</b> Emulating Indicator for Steam, Type 6	250 Nos./Pack	36 Months
KSI-6YB-20	<b>KAYOCHECK</b> Sterilization Chemical Indicator, STEAM, Type 6	250 Nos./Pack	36 Months
KSI-6YB-30	<b>KAYOCHECK</b> Sterilization Chemical Indicator, STEAM, Type 6	250 Nos./Pack	36 Months

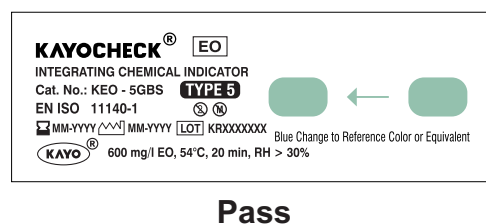
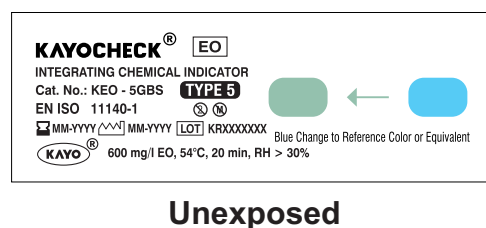
## KAYOCHECK Integrating Package Monitoring Indicator, Steam, Type 5

- **CAT. NO.: KSI-5YB-16.5**
- Monitors Critical Parameters of Steam.
- 121°C at 16.5 mins. or 134°C for 3 mins.
- Color Change - Yellow to Black.
- Comply with ISO 11140-1, TYPE 5.
- Strip size - 23mm X 66mm



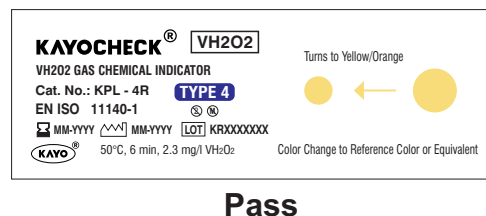
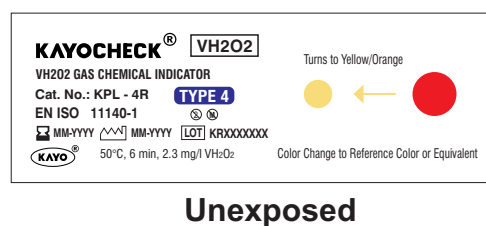
## KAYOCHECK Integrating Chemical Indicator for Ethylene Oxide Gas, Type 5

- **CAT. NO.: KEO-5GBS**
- Suitable for EO Sterilization.
- Lead free Indicator Ink.
- Color Change to Reference Color or Equivalent.
- Comply with ISO 11140-1, TYPE 5.
- Strip size - 23mm X 66mm



## KAYOCHECK Vaporized Hydrogen Peroxide (VH2O2) Gas Chemical Indicator, Type 4

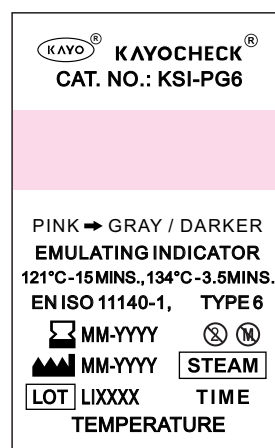
- **CAT. NO.: KPL-4R**
- Designed for VH2O2 Gas Sterilization.
- Color Change - Red Turns to Yellow/Orange
- Comply with ISO 11140-1, TYPE 4.
- Lead free Indicator Ink.
- Strip size - 23mm X 66mm



Catalog No.	Description	Pack Size	Shelf Life
KSI-5YB-16.5	<b>KAYOCHECK</b> Integrating Package Monitoring Indicator, Steam, Type 5	250 Nos./Pack	36 Months
KEO-5GBS	<b>KAYOCHECK</b> Integrating Chemical Indicator, Type 5, for Ethylene Oxide Gas	250 Nos./Pack	36 Months
KPL-4R	<b>KAYOCHECK</b> Vaporized Hydrogen Peroxide (VH2O2) Gas Indicator, Type 4	250 Nos./Pack	36 Months

## KAYOCHECK Emulating Indicator for STEAM, Type 6

- **CAT. NO.: KSI-PG6**
- Monitors Critical Parameters of Steam.
- 134°C for 3.5 mins. or 121°C at 15 mins.
- Color Change - Pink to Gray / Darker.
- Comply with ISO 11140-1, TYPE 6.
- Strip size - 33mm X 24mm
- Pack Size - 1000 Nos/Roll



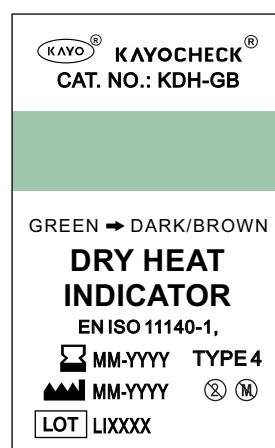
**Unexposed**



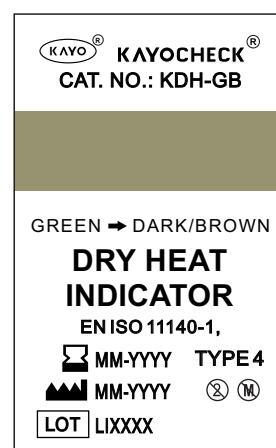
**Pass**

## KAYOCHECK Chemical Indicator for Dry Heat, Type 4

- **CAT. NO.: KDH-GB**
- Designed for DRY HEAT Sterilization.
- 160°C for 10 mins.
- Color Change - Green Turns to Dark/Brown
- Comply with ISO 11140-1, TYPE 4.
- Lead free Indicator Ink.
- Strip size - 33mm X 24mm
- Pack Size - 1000 Nos/Roll



**Unexposed**



**Pass**

Catalog No.	Description	Pack Size	Shelf Life
KSI-PG6	<b>KAYOCHECK</b> Emulating Indicator for Steam, Type 6	1000 Nos/Roll	36 Months
KDH-GB	<b>KAYOCHECK</b> Chemical Indicator for Dry Heat, Type 4	1000 Nos/Roll	36 Months



# KAYOTAPE STEAM, ETHYLENE OXIDE (EO) AND VAPORIZED HYDROGEN PEROXIDE (VH2O2) INDICATOR TAPE

## KAYOTAPE Autoclave Steam Indicator Tape

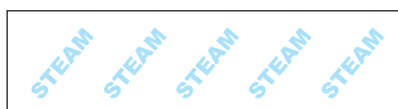
### Description

The **KAYOTAPE** Autoclave Steam Indicator Tape can be used in 121°C for 15 minutes or 132°-134°C for 3.5 minutes, The word “**STEAM**” turns Blue to Grey/Dark after exposure to steam sterilization conditions, thus providing identification of processed items.

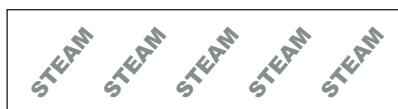
- Self Adhesive.
- Color Change - Blue Turns to Grey/Dark.
- 121°C for 15 minutes or 132°-134°C for 3.5 minutes.
- Lead free Indicator Ink.
- Comply with ISO 11140-1, TYPE 1.
- Word “**STEAM**” turns Blue to Grey/Dark after exposed to steam sterilization conditions.



- **CAT. NO.: KSIT-1950**
- Tape Dimension: 19mm X 50 Meters Roll.

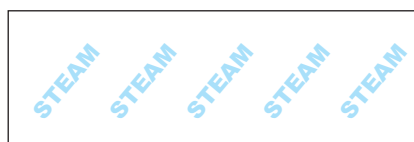


**Before Exposure**

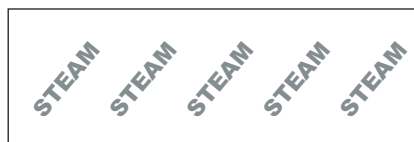


**After Exposure**

- **CAT. NO.: KSIT-2450**
- Tape Dimension: 24mm X 50 Meters Roll.



**Before Exposure**



**After Exposure**

Catalog No.	Description	Pack Size	Shelf Life
KSIT-1950	<b>KAYOTAPE</b> Autoclave Steam Indicator Tape	60 rolls in one case	36 Months
KSIT-2450	<b>KAYOTAPE</b> Autoclave Steam Indicator Tape	30 rolls in one case	36 Months

# KAYOTAPE STEAM, ETHYLENE OXIDE (EO) AND VAPORIZED HYDROGEN PEROXIDE (VH2O2) INDICATOR TAPE

## KAYOTAPE Ethylene Oxide (EO) Indicator Tape

### Description

The **KAYOTAPE - EO** ( Ethylene Oxide Indicator Tape ) is designed for use in ethylene oxide (EO) sterilizers operating at 600mg/L EO gas, 40-60% Relative Humidity, 54°C for 45 minutes or longer. The word **EO** colour turns blue to Golden/Brown after exposure to an EO gas sterilization process, thus providing identification of processed items.

- Self Adhesive.
- Color Change - Blue Turns to Golden/Brown
- 600mg/L EO gas, 40-60% Relative Humidity, 54°C for 45 minutes or longer.
- Lead free Indicator Ink.
- Comply with ISO 11140-1, TYPE 1.
- word “ **EO** ” color turns Blue to Golden/Brown after exposure to an EO gas sterilization process.



#### ● CAT. NO.: KEOT-1950

- Tape Dimension: 19mm X 50 Meters Roll .



**Before Expose**



**After Expose**

#### ● CAT. NO.: KEOT-2450

- Tape Dimension: 24mm X 50 Meters Roll .



**Before Expose**



**After Expose**

Catalog No.	Description	Pack Size	Shelf Life
KEOT-1950	<b>KAYOTAPE</b> Ethylene Oxide (EO) Indicator tape	60 rolls in one case	36 Months
KEOT-2450	<b>KAYOTAPE</b> Ethylene Oxide (EO) Indicator tape	30 rolls in one case	36 Months

# KAYOTAPE STEAM, ETHYLENE OXIDE (EO) AND VAPORIZED HYDROGEN PEROXIDE (VH2O2) INDICATOR TAPE

## KAYOTAPE Vaporized Hydrogen Peroxide (VH2O2) Indicator Tape

### Description

The **KAYOTAPE** - Vaporized Hydrogen Peroxide (VH2O2) Indicator Tape are intended to monitor VH2O2 sterilization processing, utilising  $\geq 2.3\text{mg/L}$  of VH2O2, 20% to 80% Relative Humidity, 50°C for 6 minutes. The word “**VH2O2**” colour turns Red to Yellow/Dark after exposure to an VH2O2 sterilization process, thus providing identification of processed items.

- Color Change - Red Turns to Yellow/Dark
- 2.3mg/L of VH2O2, 20% to 80% Relative Humidity, 50°C for 6 minutes.
- Lead free Indicator Ink.
- Comply with ISO 11140-1, TYPE 1.
- Word “**VH2O2**” color turns Red to Yellow/Dark after exposure to VH2O2 sterilization process.



- **CAT. NO.: KVHT-1950**

- Tape Dimension: 19mm X 50 Meters Roll .



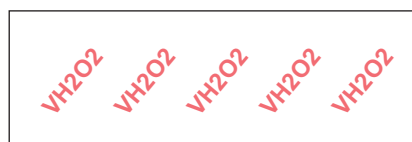
**Before Expose**



**After Expose**

- **CAT. NO.: KVHT-2450**

- Tape Dimension: 24mm X 50 Meters Roll .



**Before Expose**



**After Expose**

Catalog No.	Description	Pack Size	Shelf Life
KVHT-1950	<b>KAYOTAPE</b> Vaporized Hydrogen Peroxide (VH2O2) Indicator tape	60 rolls in one case	36 Months
KVHT-2450	<b>KAYOTAPE</b> Vaporized Hydrogen Peroxide (VH2O2) Indicator tape	30 rolls in one case	36 Months

## KAYO DOCUMENTATION LABEL (GUN LABEL / SANDWICH LABEL)

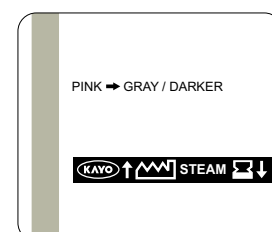
KAYO Documentation Label for Steam, Ethylene Oxide (EO) & Vaporized Hydrogen Peroxide (VH2O2) can be used to print Date of Sterilization, Date of Expiry, Operator Code, Cycle No. or other details as per your requirement on three lines with doubles fold Indicator labels.

### KAYO Documentation Label for Steam

- **CAT. NO.:STDL-600-10**
- Self Adhesive & Double Fold Indicator Label.
- Color Change - Pink Turns to Gray/Darker.
- Comply with ISO 11140-1, TYPE 1.
- Lead free Indicator Ink.
- Barcode labels, Easy usage with Label Gun.
- Designed as 3 line Labels.
- Label Size - 25 mm X 29 mm



Before Exposure



After Exposure

### KAYO Documentation Label for Ethylene Oxide (EO)

- **CAT. NO.: EODL-600-10**
- Self Adhesive & Double Fold Indicator Label.
- Color Change - Blue Turns to Greenish Yellow
- Comply with ISO 11140-1, TYPE 1.
- Lead free Indicator Ink.
- Barcode labels, Easy usage with Label Gun.
- Designed as 3 line Labels.
- Label Size - 25 mm X 29 mm



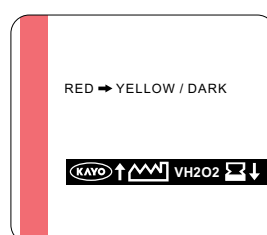
Before Exposure



After Exposure

### KAYO Documentation Label for Vaporized Hydrogen Peroxide (VH2O2)

- **CAT. NO.: VHDL-600-10**
- Self Adhesive & Double Fold Indicator Label.
- Color Change - Red Turns to Yellow/Dark
- Comply with ISO 11140-1, TYPE 1.
- Lead free Indicator Ink.
- Barcode labels, Easy usage with Label Gun.
- Designed as 3 line Labels.
- Label Size - 25 mm X 29 mm



Before Exposure



After Exposure

Catalog No.	Description	Pack Size	Shelf Life
STDL-600-10	Documentation Label for Steam - Gun Label / Sandwich Label	10 Roll/Pack, 600 Labels /Roll	36 Months
EODL-600-10	Documentation Label for Ethylene Oxide (EO) - Gun Label / Sandwich Label	10 Roll/Pack, 600 Labels /Roll	36 Months
VHDL-600-10	Documentation Label for Vaporized Hydrogen Peroxide (VH2O2) - Gun Label / Sandwich Label	10 Roll/Pack, 600 Labels /Roll	36 Months



# KAYOCHECK CIRCULAR CHEMICAL PROCESS INDICATOR

## KAYOCHECK Circular Chemical Process Indicator For Ethylene Oxide Gas

### Description

**KAYOCHECK** Ethylene Oxide (EO) Circular Chemical Process Indicator Dots for EO are manufactured to monitor whether EO exposure conditions were met at the point of application using pressure sensitive adhesive. **EO-BD-GB-5000** are intended for use with individual units (e.g. packs, containers) to indicate that the unit has been directly exposed to EO process and to distinguish between processed and unprocessed units. The indicators color transition from Blue to Golden/Brown.

- Self Adhesive.
- Color Change - Blue Turns to Golden/Brown.
- Comply with ISO 11140-1, TYPE 1.
- Circle Diameter - 12.7 mm.

Circular Indicator Dots - EO	
Process	EO
Dimensions	12.7 mm (diameter circle)
Packaging	5,000 Indicator dots Per Roll
Chemical Indicator	Initial Color: Blue Signal Color: Golden / Brown



Catalog No.	Description	Before Expose	After Expose
<b>EO-BD-GB-5000P</b>	Circular Chemical Process Indicator Dots - with text: "Golden/Brown is EO Expose"		
<b>EO-BD-GB-5000</b>	Circular Chemical Process Indicator Dots - Plain		

Catalog No.	Description	Pack Size	Shelf Life
EO-BD-GB-5000P	<b>KAYOCHECK</b> Circular Chemical Process Indicator for Ethylene Oxide Gas - Printed	5,000 Indicator Dots Per Roll	36 Months
EO-BD-GB-5000	<b>KAYOCHECK</b> Circular Chemical Process Indicator for Ethylene Oxide Gas - Plain	5,000 Indicator Dots Per Roll	36 Months

## KAYOCHECK Circular Chemical Process Indicator for GAMMA

### Description

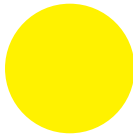

**KAYOCHECK** GAMMA Circular Chemical Process Indicator for Gamma are manufactured to monitor whether Gamma exposure conditions were met at the point of application using pressure sensitive adhesive.

**GM-PP-5000** are intended for use with individual units (e.g. packs, containers) to indicate that the unit has been directly exposed to Gamma process and to distinguish between processed and unprocessed units. The indicators color transition from Yellow to Red (As per attached performance characteristics).

- Self Adhesive.
- Color Change - Yellow Turns to Red.
- Comply with ISO 11140-1, TYPE 1.
- Circle Diameter - 12.7 mm.

Circular Indicator Dots	
Dimensions	12.7 mm (0.5" diameter circle)
Packaging	5,000 Indicator Dots Per Pack
Chemical Indicator	Initial Color: Yellow Signal Color: Red (shade of signal color is dependent on exposure parameters and may vary)



Catalog No.	Description	Before Expose	After Expose
GM-PP-5000	Circular Chemical Process Indicator Dots - Plain		

Catalog No.	Description	Pack Size	Shelf Life
GM-PP-5000	KAYOCHECK Circular Chemical Process Indicator For Gamma Dots - Plain	5,000 Indicator Dots Per Roll	36 Months

## KAYOCHECK Plastic Circular Chemical Process Indicator for GAMMA

### Description

**KAYOCHECK** Plastic GAMMA Circular Chemical Process Indicator for Gamma are manufactured to monitor whether Gamma exposure conditions were met at the point of application using pressure sensitive adhesive.

**GM-NT-5000P & GM-NT-5000P** are intended for use with individual units (e.g. packs, containers) to indicate that the unit has been directly exposed to Gamma process and to distinguish between processed and unprocessed units.

The indicators color transition from Yellow to Red (As per attached performance characteristics).

- Self Adhesive.
- Color Change - Yellow Turns to Red.
- Comply with ISO 11140-1, TYPE 1.
- Circle Diameter - 12.7 mm.

Plastic Circular Indicator Dots	
Dimensions	12.7 mm (0.5" diameter circle)
Packaging	5,000 Indicator Dots Per Pack
Chemical Indicator	Initial Color: Yellow Signal Color: Red (shade of signal color is dependent on exposure parameters and may vary)



Catalog No.	Description	Before Expose	After Expose
<b>GM-NT-5000P</b>	Plastic Circular Chemical Process Indicator Dots - with text: “ RED IS $\gamma$ EXPOSED ”		
<b>GM-NT-5000</b>	Plastic Circular Chemical Process Indicator Dots - Plain		

Catalog No.	Description	Pack Size	Shelf Life
GM-NT-5000P	<b>KAYOCHECK</b> Plastic Circular Chemical Process Indicator For Gamma Dots - Printed	5,000 Indicator Dots Per Roll	36 Months
GM-NT-5000	<b>KAYOCHECK</b> Plastic Circular Chemical Process Indicator For Gamma Dots - Plain	5,000 Indicator Dots Per Roll	36 Months



## KAYOCHECK Circular Chemical Process Indicator for Steam Sterilization

### Description

**KAYOCHECK** Circular Chemical Process Indicator Dots for Steam Sterilization are indicator labels which undergo a significant colour change from Yellow to Dark Brown/Black when exposed to steam. The sterilization process indicators are designed for use in steam autoclaves operating at 121°C or 134°C. The colour change of the sterilization process indicators is dose dependent.

- Self Adhesive.
- Color Change - Yellow Turns to Dark Brown/Black.
- Comply with ISO 11140-1, TYPE 1.
- Circle Diameter - 12.7 mm.

Circular Indicator Dots	
Process	Steam Sterilization
Dimensions	12.7 mm (diameter circle)
Packaging	5000 Indicator dots Per Roll
Chemical Indicator	Initial Color: Yellow Signal Color: Dark Brown/Black

Catalog No.	Description	Before Expose	After Expose
ST-YB-5000	Circular Chemical Process Indicator Dots - Plain		

Catalog No.	Description	Pack Size	Shelf Life
ST-YB-5000	<b>KAYOCHECK</b> Circular Chemical Process Indicator for Steam Sterilization	5,000 Indicator Dots Per Roll	36 Months






## KAYOCHECK Circular Chemical Process Indicator for Monitoring Dry Heat or Depyrogenation Process

### Description

**KAYOCHECK** Circular Chemical Process Indicator for Monitoring Dry Heat or Depyrogenation Processes are intended for use with individual units (e.g. packs, containers) to indicate that the unit has been directly exposed to a high temperature dry heat or depyrogenation process and to distinguish between processed and unprocessed units. The indicators color transition from Blue to Brown/Dark at 160°C for 40 minutes or 250°C for 60 minutes.

- Self Adhesive.
- Color Change - Blue Turns to Brown/Black.
- Comply with ISO 11140-1, TYPE 1.
- Circle Diameter - 12.7 mm.

Circular Indicator Dots	
Process	Dry Heat or Depyrogenation
Dimensions	12.7 mm (diameter circle) 0.10 mm (indicator), 0.17 mm (indicator and liner)
Packaging	500 Indicator dots Per Roll
Chemical Indicator	Initial Color: Blue Signal Color: Brown/Dark

Result Availability	Immediately following exposure to high temperature Dry Heat or Depyrogenation Processes
Unexposed*	Exposed to 160°C, 40 minutes*
	
	Exposed to 250°C, 60 minutes*
	

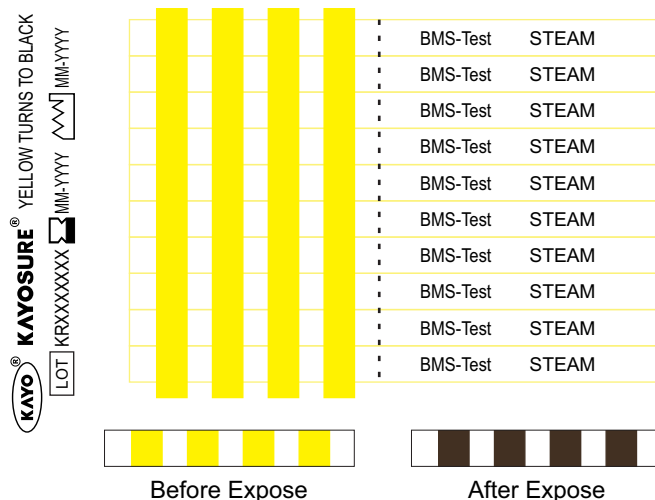
Catalog No.	Description	Pack Size	Shelf Life
DHSDP-BB-500	<b>KAYOCHECK</b> Circular Chemical Process Indicator for Monitoring Dry Heat or Depyrogenation Process	500 Indicator Dots Per Roll	36 Months

# KAYOSURE HELIX PCD TEST STRIPS

## KAYOSURE Batch Monitoring System (BMS) Test Strips, Steam, Type 2, 4 Lines.

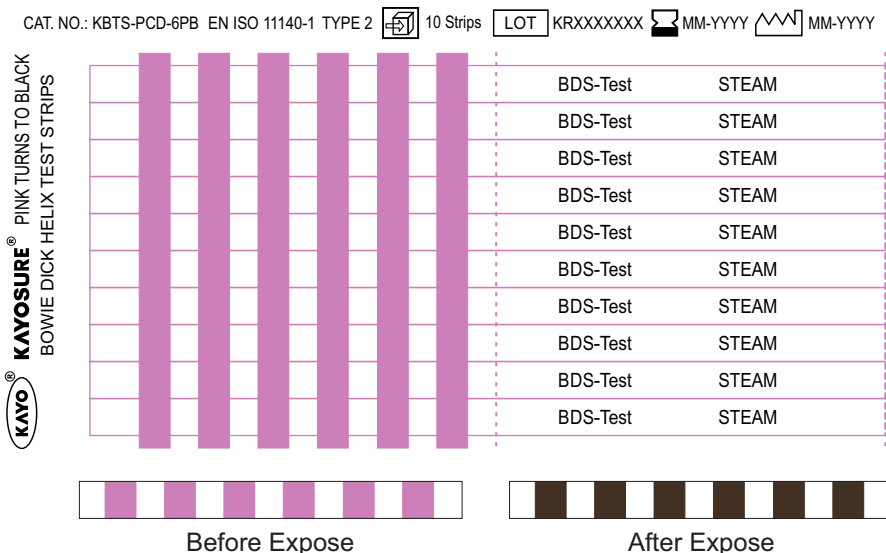
- **CAT. NO.:KBMS-PCD-4Y**
- Use BMS Test Strips with KAYO PCD Device.
- Color Change - Yellow Turns to Black.
- Comply with ISO 11140-1, TYPE 2.
- Self Adhesive for Documentation Purpose.
- Loaded Cycle: 121°C for 30 mins.
- ★ Ref. [www.cdc.gov](http://www.cdc.gov).  
(Guideline for Disinfection and Sterilization in Healthcare)

CAT. NO.: KBMS-PCD-4Y BMS HELIX TEST STRIPS EN ISO 11140-1 TYPE 2 10 STRIPS



## KAYOSURE Bowie-Dick Simulation (BDS) Test Strip, Steam, Type 2, 6 Lines.

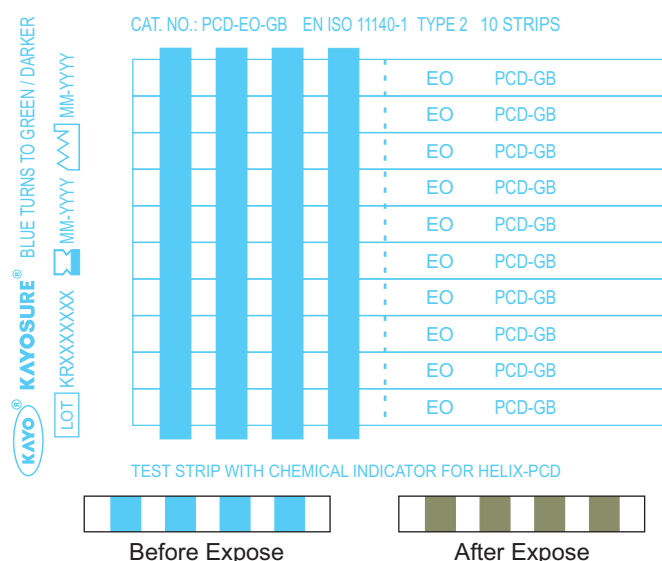
- **CAT. NO.:KBTS-PCD-6PB**
- Use BDS Test Strips with KAYO PCD Device.
- Color Change - Pink Turns to Black.
- Comply with ISO 11140-1, TYPE 2.
- Self Adhesive for Documentation Purpose.
- Empty Cycle



Catalog No.	Description	Pack Size	Shelf Life
KBMS-PCD-4Y	KAYOSURE Batch Monitoring System (BMS) Test Strips, Steam, Type 2, 4 Lines	10 Strips/Pack (10 Nos. /Strip)	36 Months
KBTS-PCD-6PB	KAYOSURE Bowie Dick Simulation (BDS) Test Strip, Steam, Type 2, 6 Lines	10 Strips/Pack (10 Nos. /Strip)	36 Months

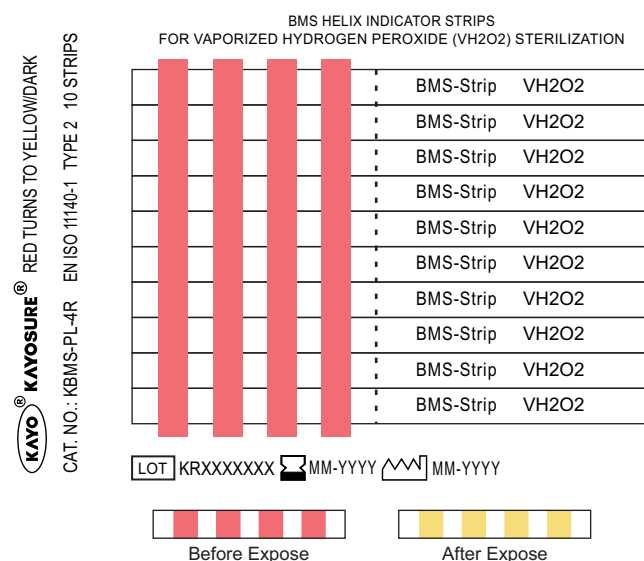
## KAYOSURE Helix PCD Test Strips For ETO, Type 2, 4 Lines.

- **CAT. NO.:** PCD-EO-GB
- Use Helix Test Strips with KAYO PCD Device.
- Used for EO Sterilization Cycle.
- Color Change - Blue Turns to Green/Darker.
- Comply with ISO 11140-1, TYPE 2.
- Self Adhesive for Documentation Purpose.



## KAYOSURE BMS Helix PCD Test Strips For Vaporized Hydrogen Peroxide (VH2O2), Type 2, 4 Lines.

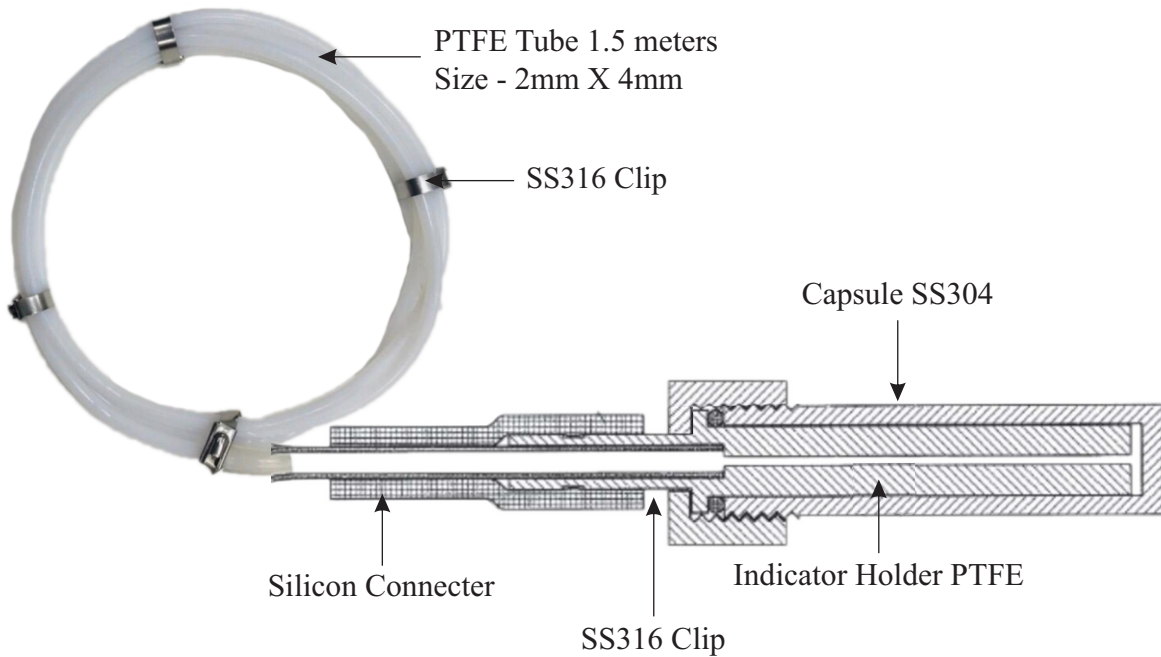
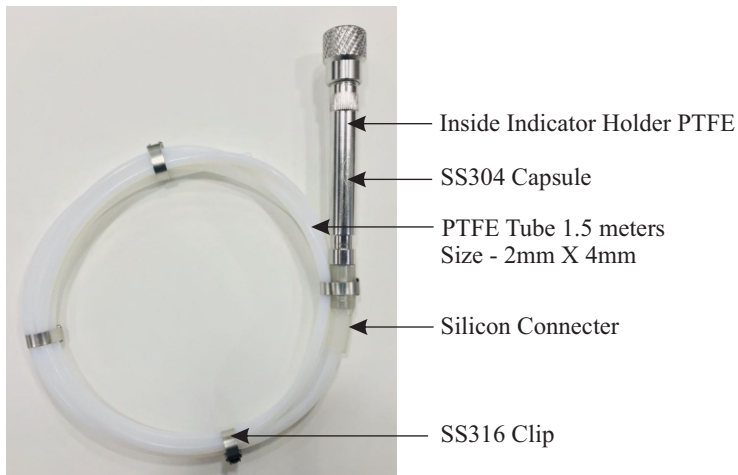
- **CAT. NO.:** KBMS-PL-4R
- Use Helix Test Strips with KAYO PCD Device.
- Used for VH2O2 Sterilization Cycle.
- Color Change - Red Turns to Yellow/Dark.
- Comply with ISO 11140-1, TYPE 2.
- Self Adhesive for Documentation Purpose.



Catalog No.	Description	Pack Size	Shelf Life
PCD-EO-GB	<b>KAYOSURE</b> Helix PCD Test Strips For ETO, Type 2, 4 Lines	10 Strips/Pack (10 Nos. /Strip)	36 Months
KBMS-PL-4R	<b>KAYOSURE</b> BMS Helix PCD Test Strips for Vaporized Hydrogen Peroxide (VH2O2), Type 2, 4 Lines	10 Strips/Pack (10 Nos. /Strip)	36 Months

# INSTRUMENTS

## KAYO - PCD Two-in-One (4 Lines And 6 Lines) SS304 & 316 with PTFE Part



### Specification

- CAT. NO.: kayo - PCD - 4 - 6
- PTFE tube : 1.5 meter  $\pm 2\%$ 
  - A) PTFE tube size : 2mm X 4mm  $\pm 2\%$
- Indicator Holder :
  - A) PTFE Length - 64.45mm  $\pm 2\%$
  - B) Weight - 4.07gms  $\pm 2\%$
- Capsule length : 97.60mm  $\pm 2\%$  material is SS304
- Clip : Material is SS316
- Connector : Silicon Tube

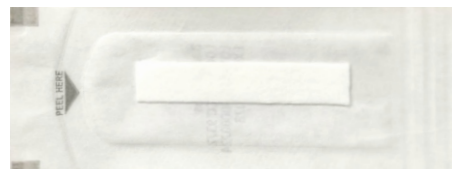
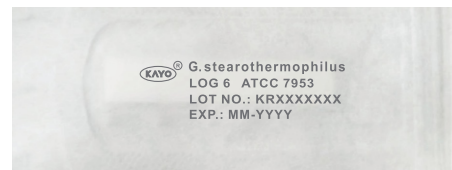
## BIOLOGICAL INDICATOR

### KAYOSPORE Biological Indicator Spore Strips for Chem Vapor/Steam

**CAT. NO.: BI-GB-SS-106**

**Description :** KAYOSPORE Biological Indicator Spore Strips consists of bacterial spores of *Geobacillus stearothermophilus* ATCC 7953 inoculated onto a paper after filter carrier contained within a medical grade paper for use in Chem Vapor/Steam sterilization. The spore strip is removed from the load and aseptically transferred into appropriate microbiological culture medium.

- Minimum Population -  $1 \times 10^6$
- Pouch Size - 30mm X 80mm
- Spore Carrier - 6.5mm X 38mm

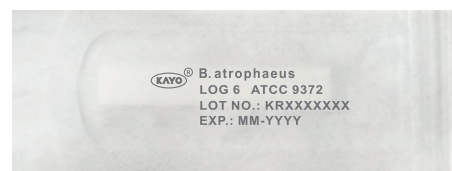


### KAYOSPORE Biological Indicator Spore Strips for Ethylene Oxide and Dry Heat

**CAT. NO.: BI-BA-EOS-106**

**Description :** KAYOSPORE Biological Indicator Spore Strips consists of bacterial spores of *Bacillus atrophaeus* ATCC 9372 inoculated onto a paper after filter carrier contained within a medical grade paper for use in Ethylene Oxide and Dry Heat sterilization. The spore strip is removed from the load and aseptically transferred into appropriate microbiological culture medium.

- Minimum Population -  $1 \times 10^6$
- Pouch Size - 30mm X 80mm
- Spore Carrier - 6.5mm X 38mm

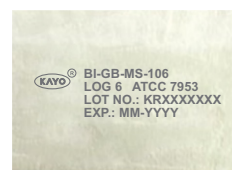


### KAYOSPORE Biological Indicator Micro Spore Strips for Steam Sterilization

**CAT. NO.: BI-GB-MS-106**

**Description:** Custom KAYOSPORE Biological Indicator Micro Spore Strips consists of bacterial spores of *Geobacillus stearothermophilus* ATCC 7953 inoculated onto a paper after filter carrier contained within a medical grade paper for use in Steam sterilization and packing in Individual pouch or Bulk without an pouch. The spore strip is removed from the load and aseptically transferred into appropriate microbiological culture medium. Medical grade paper pouch as a microbial barrier which protects the spore strips from post sterilization contamination.

- Minimum Population -  $1 \times 10^6$
- Pouch Size - 30mm X 20mm
- Spore Carrier - 2.0mm X 10mm



Catalog No.	Description	Pack Size	Shelf Life
BI-GB-SS-106	KAYOSPORE Biological Indicator Spore Strips Chem Vapor/steam	100 Strips/Pack	18 Months
BI-BA-EOS-106	KAYOSPORE Biological Indicator Spore Strips for Ethylene Oxide and Dry Heat	100 Strips/Pack	18 Months
BI-GB-MS-106	KAYOSPORE Biological Indicator Micro Spore Strips for Steam (Individual and Bulk)	100 Strips/Pack	18 Months



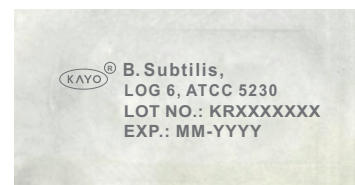
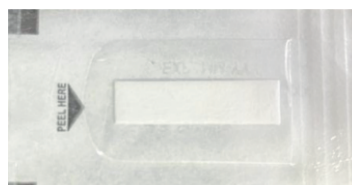
## KAYOSPORE Biological Indicator Spore Strips for Low Temperature Steam

**CAT. NO.: BI-LTS-5230-106**

### Description

**KAYOSPORE** Biological Indicator Spore Strips 5230 consists of bacterial spores of *Bacillus subtilis* ATCC 5230 (35021) inoculated onto a paper after filter carrier contained within a medical grade paper for use in Low temperature Steam sterilization. The spore strip is removed from the load and aseptically transferred into appropriate microbiological culture medium.

- Minimum Population -  $1 \times 10^6$
- Pouch Size - 30mm X 55mm
- Spore Carrier - 6.5mm X 25mm
- Temperature : Range - 110°C to 118°C

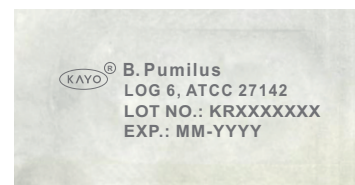


## KAYOSPORE Biological Indicator Spore Strips for Radiation

**CAT. NO.: BI-RS-27142-106 & BI-RS-27142-107**

**Description :** **KAYOSPORE** Biological Indicator Spore Strips consists of bacterial spores of *Bacillus pumilus* ATCC 27142 inoculated onto a paper after filter carrier contained within a medical grade paper for use in radiation sterilization. The spore strip is removed from the load and aseptically transferred into appropriate microbiological culture medium. Medical grade paper pouch as a microbial barrier which protects the spore strips from post sterilization contamination.

- Pouch Size - 30mm X 55mm
- Spore Carrier - 6.5mm X 25mm
- Minimum Population -  $1 \times 10^6$   
 $1 \times 10^7$



Catalog No.	Description	Pack Size	Shelf Life
BI-LTS-5230-106	<b>KAYOSPORE</b> Biological Indicator Spore Strips for Low Temperature steam	100 Strips/Pack	24 Months
BI-RS-27142-106	<b>KAYOSPORE</b> Biological Indicator Spore Strips for Radiation	100 Strips/Pack	24 Months
BI-RS-27142-107	<b>KAYOSPORE</b> Biological Indicator Spore Strips for Radiation	100 Strips/Pack	24 Months

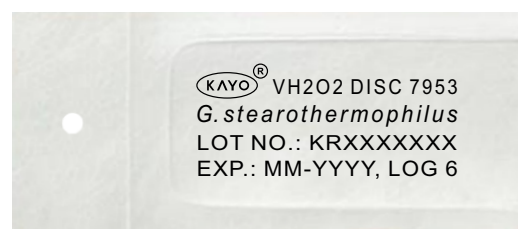
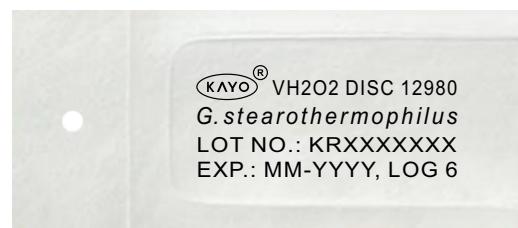
## KAYOPLASMA 12980 & KAYOPLASMA 7953 SS Disc For VH2O2

### Description

**KAYOPLASMA 12980 & KAYOPLASMA 7953** Biological Indicators consist of stainless steel carriers inoculated with a monolayer of sterilization spores. Discs are packaged in a Tyvek® envelope to protect from post process contamination. The envelope has a small hole to facilitate hanging and a thumb notch for peeling.

**KAYOPLASMA 12980 and KAYOPLASMA 7953** Biological Indicator products are designed specifically for the pharmaceutical, food, and medical device industries utilizing vaporised hydrogen peroxide vapor sterilization.

Organism	: <i>Geobacillus stearothermophilus</i> 7953 or <i>Geobacillus stearothermophilus</i> 12980
Spore Count Options	: $\geq 1.0 \times 10^3$ , $\geq 1.0 \times 10^4$ , $\geq 1.0 \times 10^5$ , $\geq 1.0 \times 10^6$
Typical D-Value	: No standard range
Z-Value	: NA
Incubation	: Time - 7 days Temperature - 55-60°C Media - SCDB
Storage	: 2-8°C <50% relative humidity
Shelf-Life	: 9 months from date of manufacture
Nominal Dimensions	: Disc: 9mm diameter X 0.45mm thickness Envelope: 30 X 64mm



Biological indicator discs are individually packaged in a medical grade Tyvek® envelope which is permeable to Vapor H<sub>2</sub>O<sub>2</sub>.

Catalog No.	Species	Description	Minimum Population	Qty/Box
BI-GB-103-7953	<i>G. stearothermophilus</i> 7953 (ATCC 7953)	<b>KAYOPLASMA 7953</b> SS Disc For VH2O2	$1.0 \times 10^3$	100 Nos/pack
BI-GB-104-7953	<i>G. stearothermophilus</i> 7953 (ATCC 7953)	<b>KAYOPLASMA 7953</b> SS Disc For VH2O2	$1.0 \times 10^4$	100 Nos/pack
BI-GB-105-7953	<i>G. stearothermophilus</i> 7953 (ATCC 7953)	<b>KAYOPLASMA 7953</b> SS Disc For VH2O2	$1.0 \times 10^5$	100 Nos/pack
BI-GB-106-7953	<i>G. stearothermophilus</i> 7953 (ATCC 7953)	<b>KAYOPLASMA 7953</b> SS Disc For VH2O2	$1.0 \times 10^6$	100 Nos/pack
BI-GB-103-12980	<i>G. stearothermophilus</i> 12980 (ATCC 12980)	<b>KAYOPLASMA 12980</b> SS Disc For VH2O2	$1.0 \times 10^3$	100 Nos/pack
BI-GB-104-12980	<i>G. stearothermophilus</i> 12980 (ATCC 12980)	<b>KAYOPLASMA 12980</b> SS Disc For VH2O2	$1.0 \times 10^4$	100 Nos/pack
BI-GB-105-12980	<i>G. stearothermophilus</i> 12980 (ATCC 12980)	<b>KAYOPLASMA 12980</b> SS Disc For VH2O2	$1.0 \times 10^5$	100 Nos/pack
BI-GB-106-12980	<i>G. stearothermophilus</i> 12980 (ATCC 12980)	<b>KAYOPLASMA 12980</b> SS Disc For VH2O2	$1.0 \times 10^6$	100 Nos/pack

## DRYAMPS Biological Indicator For Dry Heat Sterilization

### CAT. NO.: BI-BA-DHA-106

The unique **DRYAMPS** biological indicator (BI) is appropriate for either high temperature direct air exposure or submersion in oils and other non-water based solutions where traditional paper strip indicators are difficult to use.

The **DRYAMPS** BI is a 1ml snap-top glass ampoule containing stainless steel strip material inoculated with minimum  $1 \times 10^6$  *Bacillus atrophaeus* ATCC 9372 spores. All materials are compatible with extremely high temperatures such as those delivered by dry heat tunnels or ovens used for the sterilization of instruments and depyrogenation in the manufacture of aseptically filled pharmaceutical liquids.

- 72-hour results
- Small, conveniently-shaped ampoule (49mm x 11mm)
- Suitable for high temperature dry heat sterilization of instrumentation and depyrogenation
- Dramatic color change
- **Storage** : Room Temperature

### CERTIFICATION

**DRYAMPS** biological indicators are traceable to a recognized culture collection and certified for population, D-value, Z-value, and performance.



Catalog	Species	Min. Population	Pack Size	Shelf Life
BI-BA-DHA-106	<i>B. atrophaeus</i> (ATCC 9372)	$1.0 \times 10^6$	50 Sets/Box	12 Months

## LADOAMPS Biological Indicator Spore Ampule for Steam

**CAT. NO.: BI-GB-SA-106 & BI-GB-4A-106**

### Description

**LADOAMPS** is Self-contained Biological Indicator Ampule for Monitoring Steam Sterilization of liquids in containers or washers sterilizers. The **LADOAMPS** biological indicator ampule contains *Geobacillus stearothermophilus* ATCC 7953 spores and a specially formulated culture medium that turns a dramatic yellow if spores grow.

- **LADOAMPS** Biological Indicator Spore Ampule Cultures of *Geobacillus stearothermophilus* must be autoclaved at 121° C for at least 30 minutes prior to discarding.
- Small (1ml and 4ml), Conveniently Shaped Ampule
- Negative controls are included with each box of products
- **LADOAMPS** Biological Indicators are traceable to recognized culture collection and certified for Population, D-Value, Z-Value, F<sub>0</sub> Value and performance.
- **Storage** : Refrigerate at 2-8°C.



Catalog No.	Description	Pack Size	Minimum Population	Shelf Life
BI-GB-SA-106	<b>LADOAMPS</b> Biological Indicator Spore Ampule for Steam - 1ml	50 Ampules/Pack + 10 Negative Control	1 X 10 <sup>6</sup>	18 Months
BI-GB-4A-105	<b>LADOAMPS</b> Biological Indicator Spore Ampule for Steam - 4ml	50 Ampules/Pack + 10 Negative Control	1 X 10 <sup>5</sup>	18 Months
BI-GB-4A-106	<b>LADOAMPS</b> Biological Indicator Spore Ampule for Steam - 4ml	50 Ampules/Pack + 10 Negative Control	1 X 10 <sup>6</sup>	18 Months

## LADOCAPS 5230 Liquid Submersible SCBI For Low Temperature Steam

**LADOCAPS 5230** is a compact, self-contained ampoule biological indicator for monitoring industrial low temperature (110 - 118°C) steam sterilization of liquids in small containers contains *B. subtilis* ATCC 5230 spores and a specially formulated culture medium that turns a dramatic yellow if spores grow.

- 72-hour results
- Small, conveniently-shaped ampoule
- No laboratory required
- Dramatic color change
- Pack of 100 Capsules +10 Negative Controls
- Dimension: Length: 28.5mm ± 1mm  
Diameter: 6.5mm  
Volume: 0.3ml
- **Storage** : Refrigerate at 2-8°C.
- **Shelf Life** : 15 months from date of manufacture



## LADOCAPS 7953 Liquid Submersible SCBI For Steam

**LADOCAPS 7953** is a compact, self-contained biological indicator for monitoring industrial steam sterilization of liquids in small containers contains *Geobacillus stearothermophilus* ATCC 7953 spores and a specially formulated culture medium that turns a dramatic yellow if spores grow. LADOCAPS 7953 precisely integrates the process lethality.

- 48 -hour results
- Small, conveniently-shaped ampoule
- No laboratory required
- Dramatic color change
- Pack of 100 Capsules +10 Negative Controls
- Dimension: Length: 28.5mm ± 1mm  
Diameter: 6.5mm  
Volume: 0.3ml
- **Storage** : Refrigerate at 2-8°C.
- **Shelf Life** : 18 months from date of manufacture



Catalog No.	Species	Description	Minimum Population	Qty/Box
BI-BS-CAP-106	<i>B. subtilis</i> 5230 (ATCC 5230)	<b>LADOCAPS 5230</b> Liquid Submersible SCBI For Low Temperature Steam	1.0 X 10 <sup>6</sup>	100 Capsules +10 NC
BI-GB-CAP-106	<i>G. stearothermophilus</i> (ATCC 7953)	<b>LADOCAPS 7953</b> Liquid Submersible SCBI For Steam	1.0 X 10 <sup>6</sup>	100 Capsules +10 NC



## KAYOAMPS Biological Indicator Spore Vial for Steam

CAT. NO.: BI-GB-SV-105 & BI-GB-SV-106

### Description

**KAYOAMPS** (BI-GB-SV-105 & BI-GB-SV-106) steam is a self-contained biological indicator for use in monitoring the efficacy of 121°C, 132°-134°C Steam sterilization cycles. **KAYOAMPS** is easy to use, no laboratory testing or analysis required. **KAYOAMPS** units consist of *Geobacillus stearothermophilus* (ATCC-7953) inoculated into a paper carrier, which is placed into a thermoplastic vial that serves a culture Tube. A small glass ampule containing sterile culture medium and color indicator is also contained in Vials.



## KAYOAMPS Biological Indicator Spore Vial for EO

CAT. NO.: BI-BA-EOV-106

### Description

**KAYOAMPS** (BI-BA-EOV-106) Ethylene Oxide Gas is a self-contained biological indicator for use in monitoring the efficacy of Ethylene Oxide gas sterilization cycles. **KAYOAMPS** is easy to use, no laboratory testing or analysis required. **KAYOAMPS** units consist of *Bacillus atrophaeus* (ATCC-9372) inoculated into a paper carrier, which is placed into a thermoplastic vial that serves a culture Tube. A small glass ampule containing sterile culture medium and color indicator is also contained in Vials.



## KAYOAMPS Biological Indicator Spore Vial for Vaporized Hydrogen Peroxide (VH2O2)

CAT. NO.: BI-GB-PV-105 & BI-GB-PV-106

### Description

**KAYOAMPS** (BI-GB-PV-105 & BI-GB-PV-106) Vaporized Hydrogen Peroxide (VH2O2) is a self - contained biological indicator for use in monitoring the efficacy of VH2O2 sterilization cycles. **KAYOAMPS** is easy to use, no laboratory testing or analysis required. **KAYOAMPS** units consist of *Geobacillus stearothermophilus* (ATCC-7953) inoculated into a stainless steel disc or paper disc, which is placed into a thermoplastic vial that serves a culture Tube. A small glass ampule containing sterile culture medium and color indicator is also contained in Vials.



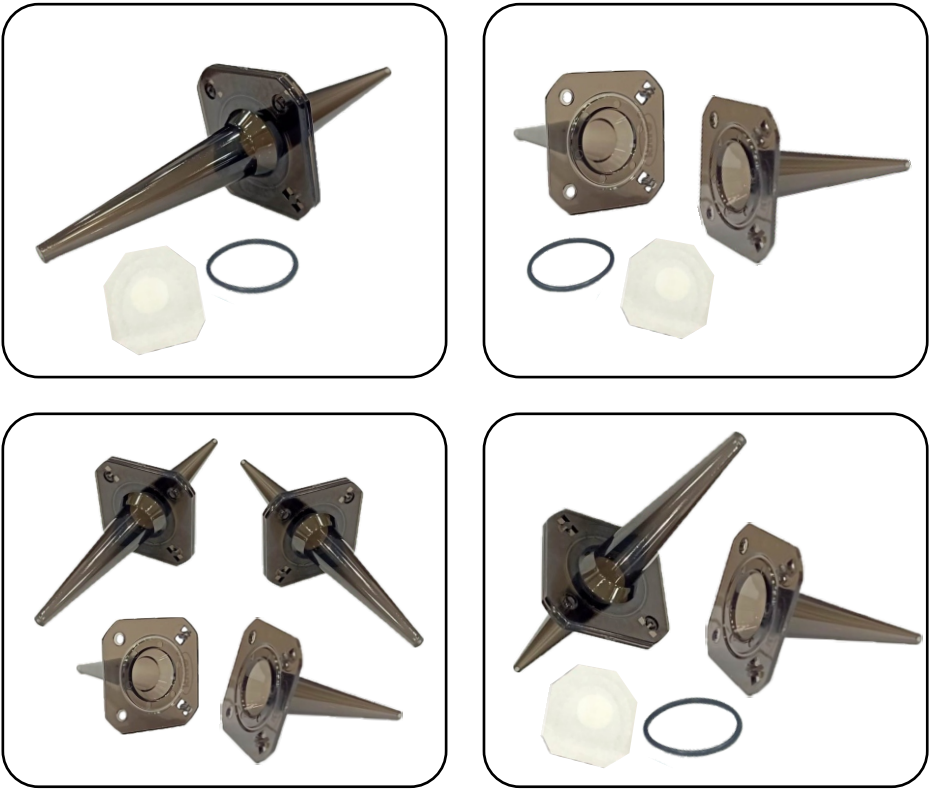
Catalog No.	Description	Pack Size	Minimum Population	Shelf Life
BI-GB-SV-105	<b>KAYOAMPS</b> Biological Indicator Spore Vial for Steam	50 Vials/Pack	1 X 10 <sup>5</sup>	24 Months
BI-GB-SV-106	<b>KAYOAMPS</b> Biological Indicator Spore Vial for Steam	50 Vials/Pack	1 X 10 <sup>6</sup>	24 Months
BI-BA-EOV-106	<b>KAYOAMPS</b> Biological Indicator Spore Vial for EO	50 Vials/Pack	1 X 10 <sup>6</sup>	24 Months
BI-GB-PV-105	<b>KAYOAMPS</b> Biological Indicator Spore Vial for Vaporized Hydrogen Peroxide (VH2O2)	50 Vials/Pack	1 X 10 <sup>5</sup>	24 Months
BI-GB-PV-106	<b>KAYOAMPS</b> Biological Indicator Spore Vial for Vaporized Hydrogen Peroxide (VH2O2)	50 Vials/Pack	1 X 10 <sup>6</sup>	24 Months

# SILCOT-V Process Challenge Device for Validation of Sterilization Cycle of Silicone Tubing

CAT. NO.: BI-GB-STV-106

SILCOT-V is a Biological Indicator system designed for use in the validation or monitoring of sterilization cycles of Silicone tubing ranging from 1/8” to 5/8” tubing ID.

The **SILCOT-V** PCD (Process Challenge Device) contains a filter paper disc inoculated with bacterial spores of *Geobacillus stearothermophilus* (ATCC 7953). The spore disc is packaged in a glassine envelope and is located in the center of the **SILCOT-V** housing. If adequate sterilant penetration occurs, the spores on the disc will be deactivated and verify an adequate sterilization cycle.



## USE AND PLACEMENT:

The **SILCOT-V** system with its two attached lengths of tubing should now be placed in the sterilizer along with a normal load being processed where tubing would normally be included.

Catalog No.	Species	Description	Minimum Population	Qty/Box	Shelf Life
BI-GB-STV-106	<i>G. stearothermophilus</i> (ATCC 7953)	<b>SILCOT-V</b> Process Challenge Device	1.0 X 10 <sup>6</sup>	15/ PACK	18 Months

## Biological Indicators Culture Media

### CAT. NO.: BI-TSB-BP-10-50

Soyabean Casein Digest Broth is the recommended media for use with Biological Indicators. Use of another media may detrimentally affect outgrowth of spores. KAYO TSB with Bromocresol purple pH indicator is specially formulated for use with our biological indicators

Prepared Media is packaged in 20ml Type 1 borosilicate glass tubes with polypropylene screw-caps (white rubber liners).

### 24-HOUR INCUBATION

A reduced incubation time of 24 hours at 60 °C +/- 2 °C has been validated for steam sterilization when the **KAYOSPORE** Bacterial Spore Strip is used in conjunction with KAYO Modified Tryptic Soy Broth with Bromocresol Purple.

### DEHYDRATED CULTURE MEDIA

KAYO recommends Difco TSB for use in verifying the certified label claims for our products. KAYO uses Difco media in-house for the manufacture and QC testing of our products.

### STORAGE

Room Temperature



Catalog Number	Tryptic Soy Broth	Fill	Quantity	Shelf Life
BI-TSB-BP-10-50	Tryptic Soy Broth with Bromocresol Purple	10ml	50/box	12 Months

Spore Strips (By Process)	Species	Log
Steam	<i>G. stearothermophilus</i>	10 <sup>6</sup>
Ethylene Oxide and Dry Heat	<i>B. atrophaeus</i>	10 <sup>6</sup>

## SPORE SUSPENSIONS - Kayo Biological Indicators

Spore suspensions are calibrated suspensions of bacterial spores appropriate for direct inoculation of products or preparing custom biological indicators for monitoring Steam, Ethylene Oxide (ETO), Dry Heat, Hydrogen Peroxide, Radiation and other industrial sterilization processes. Each vial contains 10ml of suspension. The suspending liquid is 40% ethanol.

### STORAGE

40% ethanol: freeze at -25 to -10°C.

### SHELF LIFE

EtOH - 24 Months from Date of Manufacture



#### *B. atrophaeus* 9372 – EtO/Dry Heat

Cat. No.	Population (Per 0.1ml)
KR-9372-SSE-106	10 <sup>6</sup> , 40% EtOH

#### *B. subtilis* “5230” 35021 – Low Temperature (Steam)

Cat. No.	Population (Per 0.1ml)
KR-5230-SSE-106	10 <sup>6</sup> , 40% EtOH

#### *G. stearothermophilus* 7953 – Steam/Vapor H2O2

Cat. No.	Population (Per 0.1ml)
KR-7953-SSE-106	10 <sup>6</sup> , 40% EtOH

#### *B. subtilis* 6633 - Growth Promotion

Cat. No.	Population (Per 0.1ml)
KR-6633-SSE-106	10 <sup>6</sup> , 40% EtOH

## ACCESSORIES: BACTERIAL ENDOTOXIN TESTING (BET)

### TEST TUBES, PYROGEN FREE FOR BET

- Test Tube is Pyrogen Free, Made up of Borosilicate Flint Glass USP Type 1.
- Endotoxin Level is <0.005 EU/Tube
- Has been Reviewed by Kinetic Chromogenic Method for BET in compliance with GMP and 21 CFR Part 11 Regulations.

**KAYOBETT® Test Tubes, Pyrogen Free USP Type 1 Flint Glass**

Qty. : 50 Test Tubes    Catalog No.: KR-10-75-50  
 Size : 10 X 75MM    Lot No. : KRXXXXXXX  
 Exp. Date: MM/YYYY    Mfg.Date : MM/YYYY  
 MRP :

**Pyrogen Free, unless the package has been damaged**

Manufactured & Marketed by  
 Kayo Research and Innovation Corporation,  
 Navghar, Vasai Road (East), Maharashtra (INDIA).  
 Customer Care No. +91 (0) 250-2392186 / 2392187  
 Email: info@LadoKayo.com  
 Website: www.LadoKayo.com

**LAB USE ONLY**

KR-10-75-50

**KAYOBETT® Test Tubes, Pyrogen Free USP Type 1 Flint Glass**

Qty. : 40 Test Tubes    Catalog No.: KR-12-75-40  
 Size : 12 X 75MM    Lot No. : KRXXXXXXX  
 Exp. Date: MM/YYYY    Mfg.Date : MM/YYYY  
 MRP :

**Pyrogen Free, unless the package has been damaged**

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 Email: info@LadoKayo.com  
 Website: www.LadoKayo.com

**LAB USE ONLY**

KR-12-75-40

**KAYOBETT® Test Tubes, Pyrogen Free USP Type 1 Flint Glass**

Qty. : 30 Test Tubes    Catalog No.: KR-13-100-30  
 Size : 13 X 100MM    Lot No. : KRXXXXXXX  
 Exp. Date: MM/YYYY    Mfg.Date : MM/YYYY  
 MRP :

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 Website: www.LadoKayo.com

**LAB USE ONLY**

KR-13-100-30

**KAYOBETT® Test Tubes, Pyrogen Free USP Type 1 Flint Glass**

Qty. : 10 Test Tubes    Catalog No.: KR-16-100-10  
 Size : 16 X 100MM    Lot No. : KRXXXXXXX  
 Exp. Date: MM/YYYY    Mfg.Date : MM/YYYY  
 MRP :

**Pyrogen Free, unless the package has been damaged**

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**LAB USE ONLY**

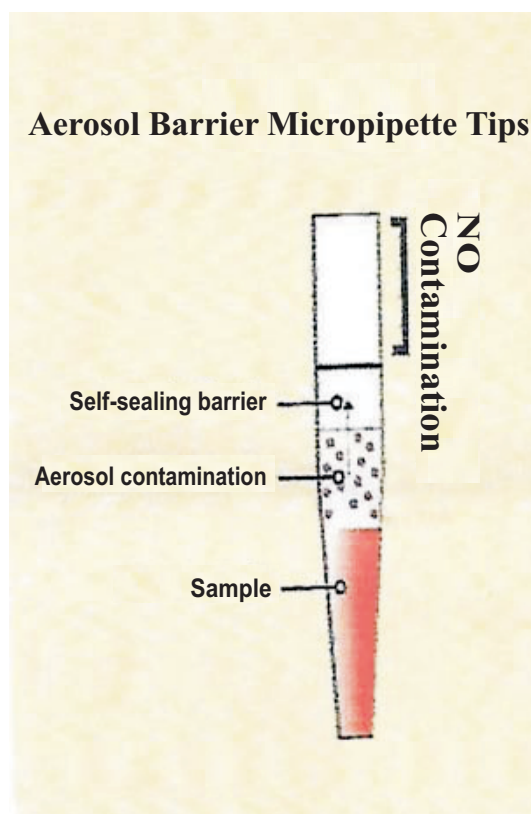
KR-16-100-10

Catalog No.	Description	Size	Pack Size
KR-10-75-50	Test Tubes, Pyrogen Free USP Type 1 Flint Glass with COA	10mm X 75mm	50 Tubes/Pack
KR-12-75-40	Test Tubes, Pyrogen Free USP Type 1 Flint Glass with COA	12mm X 75mm	40 Tubes/Pack
KR-13-100-30	Test Tubes, Pyrogen Free USP Type 1 Flint Glass with COA	13mm X 100mm	30 Tubes/Pack
KR-16-100-10	Test Tubes, Pyrogen Free USP Type 1 Flint Glass with COA	16mm X 100mm	10 Tubes/Pack

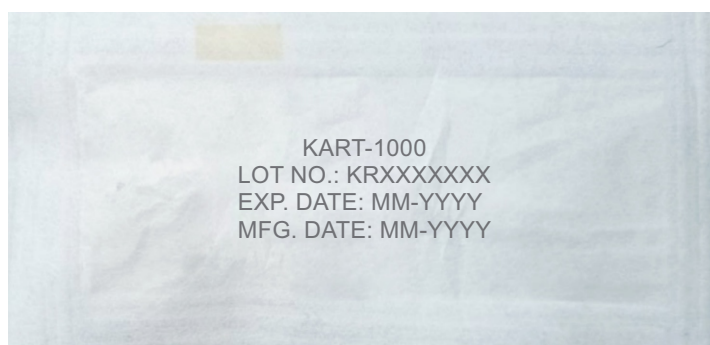


## **AEROSOL BARRIER MICROPIPETTE TIPS** (Depyrogenated, Individually Sterile by ETO)

- Mentioned Product Code, Lot No., Manufacturing & Expiry Date on Individual Tips.
- Micropipette Tips are Sterile, Endotoxin Level is <0.005 EU/TIP, Has been reviewed by Kinetic Chromogenic Method in compliance with GMP and 21 CFR Part 11 Regulation
- Tips Packing in Sterilization Flat Roll with Indicator.
- MOC of Micropipette Tips: Polypropylene, Color White.
- MOC of Filter: Carboxy Methyl Cellulose.
- Medical Grade Paper used in Tips Packing.



**FRONT SIDE**



**BACK SIDE**

Catalog No.	Description	Volume	Pack Size
KART-200	Aerosol Barrier Micropipette Tips (Depyrogenated, Individually Sterile by ETO)	20ul - 200ul	100 Tips/Pack
KART-1000	Aerosol Barrier Micropipette Tips (Depyrogenated, Individually Sterile by ETO)	200ul - 1000ul	50 Tips/Pack

## **MICROPIPETTE TIPS**

### **(Depyrogenated, Individually Sterile by ETO)**

- Mentioned Product Code, Lot No., Manufacturing & Expiry Date on Individual Tips.
- Micropipette Tips are Sterile, Endotoxin Level is <0.005 EU/TIP, Has been Reviewed by Kinetic Chromogenic Method in Compliance with GMP and 21 CFR Part 11 Regulations.
- Tips Packing in Sterilization Flat Roll with Indicator.
- MOC of Micropipette Tips: Polypropylene, Color White.
- Medical Grade Paper used in Tips Packing.



**FRONT SIDE**



**BACK SIDE**

Catalog No.	Description	Volume	Pack Size
KAST-250	Micropipette Tips (Depyrogenated, Individually Sterile by ETO)	2ul - 200ul	100 Tips/Pack
KAST-1000	Micropipette Tips (Depyrogenated, Individually Sterile by ETO)	200ul - 1000ul	50 Tips/Pack
KAST-5000	Micropipette Tips (Depyrogenated, Individually Sterile by ETO)	1000ul - 5000ul	25 Tips/Pack

# Kayo Research and Innovation Corporation

Kayo Research is a leading provider of BET Accessories (Micropipette Tips & Test Tubes Pyrogen Free) & Sterilization Indicator for infection prevention. The company is focussed primarily on Pharmaceutical, Healthcare, Hospital (CSSD) and Medical device Customers.

**Thank you for your interest in Kayo Products.**



## Pharma

Sterilization is a critical process in the Pharmaceutical industry for the control of Microbial populations. Sterilization is needed on an everyday basis in order to eliminate the risk of contamination. Sterilization can be achieved through application of heat, chemicals, irradiation, or filtration.

## Healthcare & Medical

Maintaining adequate Disinfection and Sterilization in a Healthcare Facility are essential for ensuring that the Hospital/Clinic Environment, Medical and Surgical Instruments do not transmit infectious microbial life forms to patients



## Food Processing

Gamma irradiation is used to kill harmful micro-organisms and to extend the shelf life. As irradiation is chemical and residue free, it has little or no effect on properties such as appearance, flavour, texture or aroma. Food is irradiated in countries such as France, Netherlands, South Africa, USA and Thailand.

## Personal Care

Sterilization of certain Cosmetics Products such as Eyelash, Eyebrow Pencil, Face Powder, Kajal, Lipstick and Talcum Powder prevents bacteria from contaminating Product Formulas. Clean-in-Place (CIP) and Sterilize-in-Place (SIP) systems are an essential part of personal care production



### Manufacturer



+91 (0) 250-2392186/2392187



[www.LadoKayo.com](http://www.LadoKayo.com)



Neminath Industrial Estate No. 1, Gala No. 102 & 107, 1<sup>st</sup> Floor, Navghar, Vasai Road (E), Dist. Palghar - 401 210, Maharashtra (India)



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