

# TAMPER

CLEAR VISUAL PROOF

# EVIDENT

ADDING A NEW LEVEL OF SECURITY

# SOLUTIONS

WRITTEN BY

# TAMPER TECHNOLOGIES

#1 MANUFACTURER OF TAPES AND LABELS

Permanent

surface

Finger Lift

Covert

UV

Non Residue

Subsurface

Void

Security Cut

Overt



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SPECIAL FEATURES

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**SURFACE ENERGY  
MAKES ALL THE  
DIFFERENCE  
BETWEEN  
THE RIGHT LABEL  
FOR THE RIGHT  
APPLICATION**

**THE SCIENCE BIT**

Firstly a bit of science. Tamper evident labels and tapes are brilliant, but they are only as good as the surface they are applied to. In our experience, this is the only place where these security solutions are vulnerable.

So we are going to start by explaining how the surface which the tape or label is to be applied must be considered: roughness, smoothness, porosity, coated, uncoated, cleanliness, flexibility, temperature conditions, wet or dry.

All surfaces have energy associated with them because "work" is needed to form them. This work is the force that is required to hold the molecules together to form the surface, whether it is a desktop or a cardboard box.

Surfaces are referred to as low energy or high energy.

To help with this TamperTech has created a checklist that is available on their website to download or complete online with your customer.

## Low Surface Energy

These surfaces are hydrophobic, which means they hate water.

A hydrophobic surface has low energy with the following properties:

- Poor Adhesiveness
- Poor Wettability

Low energy surfaces are typically acrylic, plastics, rubber, and composites.



These surfaces are harder for labels and tapes to stick to.

## High Surface Energy

These surfaces are hydrophilic which means the surface likes water.

A hydrophilic surface has high energy with the following properties:

- Good Adhesiveness
- Good Wettability

High energy surfaces are typically glass, cabinets, and car paint.



Labels and tapes stick well to hydrophilic surfaces

**CHECKLIST**  
tamper evidence tapes and labels

These questions are a simple guide to help prevent unforeseen problems. The list is not exhaustive, but should be a good place to start to ensure our products do the job for you and your customers

**options** Please answer the following questions and comment

Do you want a label or tape?  
Would you like it permanent (P) or non-permanent (N)?

Do you want to include a logo?  
Please provide wording for logo especially for language options

Would you like a specific void message?  
Please provide wording for void message especially for language options

What colour would you like?  
Would you like sequential numbering?  
Would you like a barcode?  
Would you like a QR code?  
Is the tape/label to be used on a specific surface?

**production** Please select from the following

Labels

Millimetres

85 x 25

110 x 30

Other size

How many rolls

**application** What would you like your label or tape adhere to? Please tick where appropriate

Aluminium	Cartons	Cardboard
Crates	Glass	Metal
Pallets	Paper	Plastic
Polythene Bags	Shrink wrap	Wood
Other (please describe):		

**surface** What is the surface condition like? Please tick where appropriate

Clean	Curved	Sticky
Flat	Hard	Oily
Smooth	Soft	Textured
Other (please describe):		

**use** What is the product application? Please tick where appropriate

Aircraft	Cargo	Drug Testing
Electronics	Forensic	Governments
High Security i.e. police, prisons, military	IT i.e. USB ports, disc drives, cabinets, servers	Money i.e. CRT, boxes, bags, ATM casettes
Packaging	Vending Machines	Warranty
Other (please describe):		

**environment** What environment will the label or tape be exposed to? Please tick where appropriate

Cold	Hot	Inside
Outside	Wet	Dry
Other (please describe):		

SPECIALISTS IN TAMPER EVIDENT SOLUTIONS [www.tampertech.com](http://www.tampertech.com)

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**TAPES AND  
LABELS THAT  
REVEAL HIDDEN  
MESSAGES WHEN  
REMOVED**

**YOU CHOSE THE MESSAGE**



# BOX TAPE

TamperTech manufactures a range of security tamper-evident packaging tapes, which can be applied onto cartons, boxes, and shrink wrap films.

Security tape is a type of self adhesive tape used to help reduce losses due to pilfering and theft.

It can be used as a “security seal” in addition to a tape for a container closure or can be used as a security label, on top of a standard box tape. They are sometimes used as or with authentication products and can be an anti-theft seal.

Packaging security tapes can look like "standard" permanent brown packaging tape, being a covert tamper-evident solution that is used to seal cartons whilst adding an instant, extra level of security to the package.

Covert tapes are plain with no surface print and a tamper-evident void message.

Overt tapes have a surface print including wording, logos, sequential numbers, QR codes, barcodes, and a tamper-evident void message

Tamper evident high security tapes are used just like normal packaging tape but, leave a clearly visible warning message on the packaging for quick detection of attempted theft or attack by providing a permanent visual message when removed “OPENED VOID”.

This is a cost-effective means of protecting packages through shipping and handling, as well as securing them against pilfering and counterfeiting.

These packaging security tapes also support logistics with added verification and validation of cartons

### **Stock Tapes**

Our Off the Shelf high-security tapes are available with:

- Perforations or no perforations
- Unique sequential numbers
- In Red, Blue, Brown and Clear
- 45mm or 50mm wide
- 50m or 60m long

### **Customised Tapes**

TamperTech tapes can be made to suit your specific requirements:

- Colour
- Security void message
- Top print surface message
- Holograms
- Inks
- Logos
- Any width
- Any roll length

These box tapes can be applied manually, with a standard packaging tape dispenser, and automatic box tape machines



**CHAPTER  
ONE**

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SIX**



# PERMANENT LABELS



A permanent tamper evident security label provides an excellent visual deterrent to theft.

Protecting the integrity of the contents and securing the item from being tampered with.

The tamper evident label offers an extra level of security instantly upon application.

These permanent labels are easy to apply to a range of surfaces:

- Document envelopes
- Fibre cartons
- Plastic packaging
- Metal containers
- Pharmaceutical packets
- Film wrap
- Polystyrene boxes
- Glass tubes
- Paper bags

These labels are a self-adhesive tamper-evident security solution, proven to protect from counterfeiting or tampering with packaging and products.

Permanent security labels cannot be removed without showing evidence by leaving the sub-surface print message on the surface applied to.

### Make labels your own with choices:

- Surface print - top message
- Sub-surface print - void message
- Size
- Shape
- Finger lift edges
- Barcode
- QR code
- Numbering
- Dual number tabs
- Colours
- Security cuts
- Holograms
- UV
- Wide edge leading – WEL
- Narrow edge leading - NEL





# **NON-RESIDUE LABELS**

### What does non-residue mean?

Simply put a non-residue label is one that does not leave any residue, marking or adhesive, behind on the surface it has been applied to.

These labels can be referred to as removable labels, no residue stickers, and non-permanent labels.

A non-residue tamper-evident label is a pressure-sensitive label that when it is removed displays a very visible void/open message within the label.

No adhesive residue will be left behind on the container or the packaging, however, the label cannot be reapplied as it has been voided by removal and this action is irreversible.

A non-residue label can be applied to many surfaces adding smart security without damaging the surface for packaging and places, for example:

- Aircraft doors
- Filing cabinets
- Exit doors
- Catering trolleys
- USB ports
- Camera phones
- High-value packaging
- ATM cassettes
- Fuel caps
- Lockers
- Panels
- Desk draws
- Office doors

TamperTech offers an advanced tamper evident solution with a high contrast matt finish giving an excellent VOID and a surface that can be written on in biro.

These labels can also be made individual with the additional security features like the permanent labels.



Labels can be any size or shape you require and for additional security receipt tabs can be added for a track and trace facility too.





**BAG TAPE**

Tamper evident tape manufactured specifically for security bags is designed to deliver the security level required by the individual security bag manufacturer.

Protecting bags from tampering, unauthorised opening, and counterfeiting by delivering an instant, clearly visible, additional layer of security with tamper evident tape.

This permanent tamper-evident security bag tape leaves an easy-to-see security message within the tape itself and on the bag surface.

Customers can choose their own void message, in any language from as little as 100,000 meters.

The edge-to-edge adhesive application system used by TamperTech ensures that the bag is able to withstand solvent attacks.

The thermochromic option reacts to heat and demonstrates clearly when the bags have been attacked. The tape also voids when frozen.

The use of UV print in the design offers additional security.

Rolls of security bag tape can be produced with:

- Two colour prints

Three liners:

- 23 micron metalised
- 24 micron red
- 24 micron blue

Sizes:

- Up to 1750 meters per roll
- 20mm–45mm widths are available

## A quick guide to security bag tape levels

### Level 2

Void and Void Cold

### Level 3

Void, Void Cold plus Thermochromic (shows when tampered with heat)

### Level 4

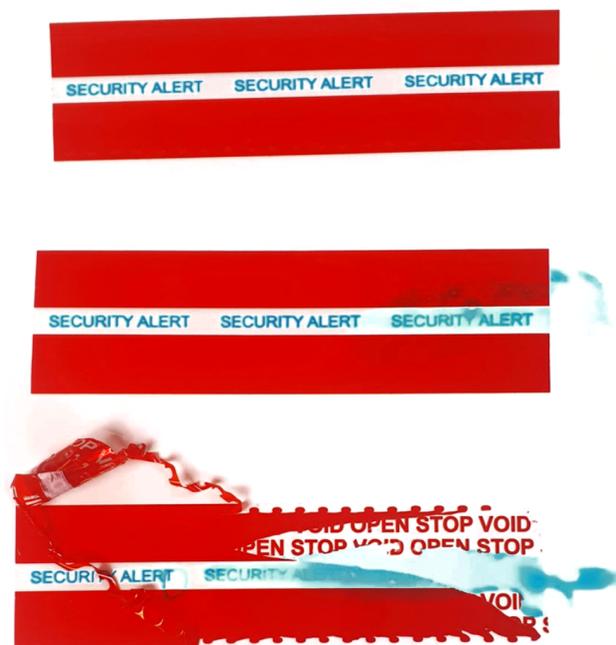
Void, Void Cold, Thermochromic (shows when tampered with heat) plus security cuts in the tape making it tear when tampered.

### Level 5

Void, Void Cold, Thermochromic (shows when tampered with heat), security cuts in the tape making it tear when tampered plus hidden UV print.

### Level 6

Void, Void Cold, Thermochromic (shows when tampered with heat), security cuts in the tape making it tear when tampered, hidden UV print plus water fugitive ink.



**CHAPTER  
ONE**

**PAGE NO.  
TWELVE**

# CHAPTER TWO

CHOOSE TO BE INDIVIDUAL

YOUR TAMPER EVIDENT

☆☆Options☆☆

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**IN ORDER TO BE  
IRREPLACIBLE  
ONE MUST  
ALWAYS BE  
DIFFERENT**

**COCO CHANEL**

Tamper evident tapes and labels are also referred to as self voiding tapes and labels, they provide instant physical evidence of tampering by revealing a hidden print message, when opened, therefore known as tamper-evident.

The desired outcome is for the tape or label to correctly and clearly indicate an attempted or unauthorised opening, equally, it should demonstrate when tampering has not taken place.

These security solutions are used for:

- Authentication
- Theft reduction
- Protection against counterfeiting and piracy
- Increasing privacy
- Warranty validation
- Keeping an area secure
- Customer engagement

The choice of pressure-sensitive adhesive is dependent on the surface the label is to be applied to as well as the following considerations:

#### Permanent Tamper Evidence

Label or tape to leave a permanent residue on the surface.



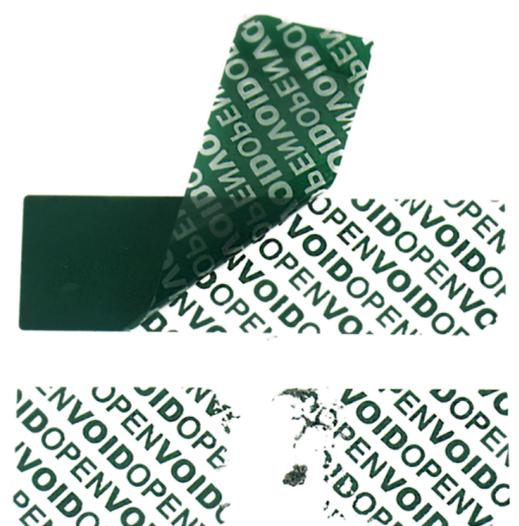
#### Non-Residue Tamper Evidence:

Label or tape to be peelable and leave no residue on the surface.



#### Partial Transfer Tamper Evidence:

Label which leaves a partial residue on the surface which can be easily removed when rubbed.



When choosing your tamper evident security solution it is a good idea to look at all the options you can select from to build your individual labels and tapes

The menu is comprehensive and some are complementary to each other and some are industry specific.

Here, we are covering some of your initial choices and in the next chapter will cover more special feature options available to be added to these.

### COVERT



A covert tamper evident label or tape has been designed to look like a "normal" box tape or label, until it is removed when it reveals a hidden message.

This is known as the void message and will give an instant clear visual indication that the label or tape has been tampered with or removed.

### OVERT

An overt design makes it clearly obvious on the top layer, that it is a security tape or label using words or pictures to act as a visual deterrent.

Thus discouraging people from interfering with the parcel, package, product, or pallet.

Overt security tape can help with supply chain approval through bonded warehouses and split loads with border control recognising the goods as checked and approved prior to shipping.



Overt tape also has the voiding layer sub-surface print, specific to tamper evident tapes and labels.

# CHAPTER THREE

CHOOSE TO BE DIFFERENT  
CHOOSE TO BE YOU  
YOUR TAMPER EVIDENT

☆☆ Custom options ☆☆

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**WHY FIT IN WITH  
EVERYONE ELSE  
WHEN YOU CAN  
STAND OUT?**

**THE CHOICE IS YOURS**

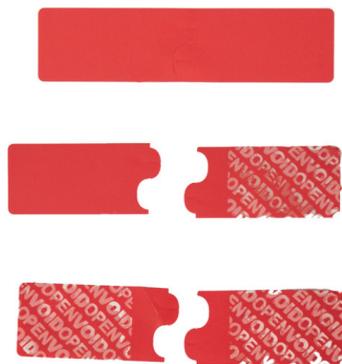
Then following the decision for overt or covert, permanent, non residue, or partial transfer it is time to make your label unique to you with a mix and match of the following options to create your own individual labels and tapes

### BIG NUMBERS



Big numbers are exactly that. Big numbers! We create specific number files which ensure every label or tape is unique. This is a simple solution that protects your parcels from counterfeiters.

### SECURITY CUTS

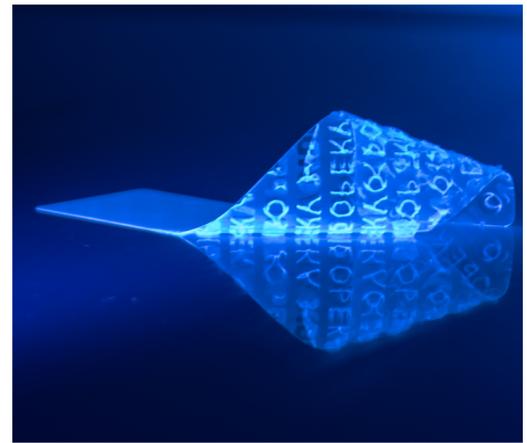


A security cut is where the label or tape is specifically designed to easily split apart when tampered with or removed, whilst still offering total security with a tamper evident void message.

The security cut box tape can be applied manually or automatically.



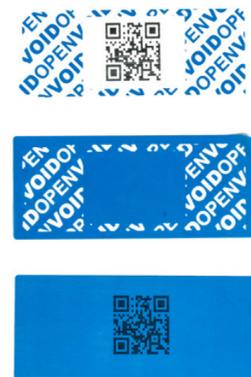
### ULTRA VIOLET



Ultra Violet (UV) ink is a specialist ink that glows under a black light.

There are many reasons why people choose to have UV ink inset into their products, giving an additional layer of invisible security, even adding a further level of security as a "secret" watermark to ensure a genuine product or for fast checking of packaging integrity in dark spaces; under seats, in warehouses and containers with a black light torch.

### QR CODES



A QR code can be printed into your layers of security as a surface print or a sub-surface print.

The QR code can be used to support traceability of your products and parcels or within marketing campaigns to encourage interaction and engagement with customers and end-users from authenticating warranties to gamification.

## SEQUENTIAL NUMBERS



Sequential numbers, also referred to as consecutive numbers are numbers that follow on from each other in a descending or ascending order. The printing of these identification numbers can be printed multiple times within a label or tape. This unique number raises the security for the user and supports track and trace recommendations.

## BELOW FREEZING



A tamper-evident label and tape from Tampertech can be applied to difficult surfaces and remain adhered to the surface even in sub-zero conditions. This is particularly useful within the cold supply chain.

## COLOUR CHOICE



Fit in with your branding, packaging, and campaigns. The choice is yours! These are printed products, you can even have gold and silver!

## HOLOGRAMS



Holographic labels are the perfect way to create an eye-catching label. The use of a hologram foil within a tamper evident label ensures it is unique and cannot be copied by counterfeiters, who are very adept at recreating holograms.

## ULTRA DESTRUCT



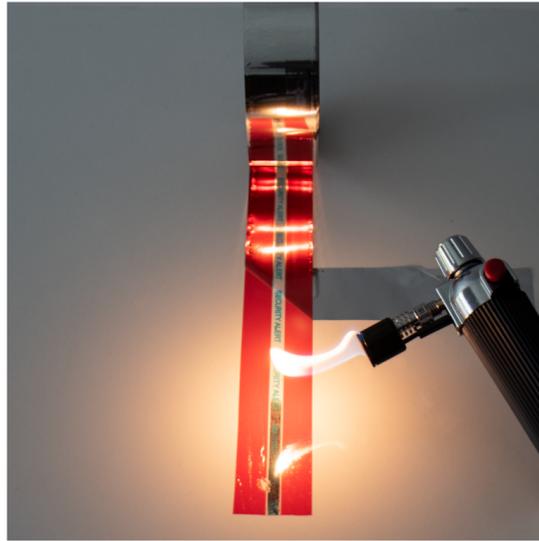
These are labels that literally destruct when removed. The label material breaks into tiny pieces when removal is attempted.

If solvent is applied they dissolve leaving a permanent ink residue on the surface. These tamper-evident security labels can be overprinted as normal.

**CHAPTER  
THREE**

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TWENTY**

## HEAT SENSITIVE



Heat sensitive labels and tapes are made using thermochromic inks. The thermochromic inks are temperature sensitive and will permanently change colour when attacked by heat.

## ULTRA SENSITIVE



Ultra sensitive non residue labels are made with a high tack adhesive which will leave no glue or tack behind on the surface but will adhere to a wide variety of surfaces. These labels have been used extensively for the covering of mobile phone cameras in secure locations.

## CONTRAST PRINT



A contrast print is a clear bold choice of colour to grab attention and be easy to scan or read, quickly and reliably.

## VOID MESSAGE



Your VOID message is a key part of tamper evidence, it is the message or pattern revealed when the label is removed, this cannot be copied. Thus delivering a new level of security, instantly. You can have words, in any language, symbols, QR codes, sequential numbers, and logos.

This Void Message is sub-surface and cannot be seen until the label or tape has been removed.

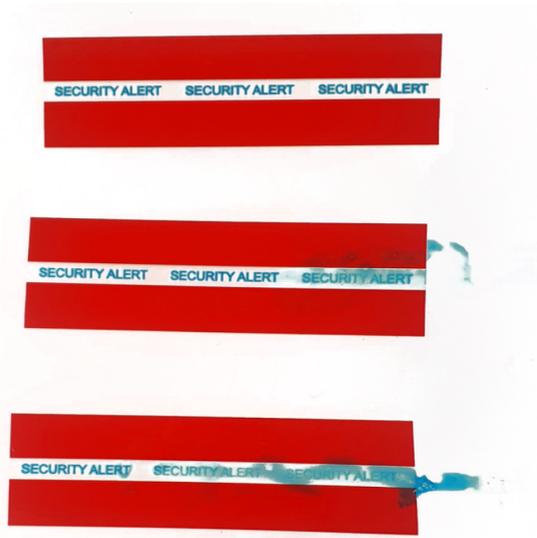
## DEAD CENTRE



A Dead Centre is where adhesive isn't applied to the centre of a label, making the centre "dead" as it will not stick to anything.

It most commonly comes in a dumbbell label or a label with security cuts in the centre. With this feature tamper-evident labels are extremely versatile

## WATER FUGITIVE



Water fugitive ink is used to highlight attacks with water. These attacks are used as a barrier between the bag and the glue to stop the tape from adhering effectively.

This makes tampering with packaging much harder, and easier to pinpoint where in your supply chain a security break is happening much easier, allowing security to address breaches proactively.

## DUAL NUMBER TAB



Tamper evident labels can come with Dual Number Tabs, DNT, which make it easier to assign a label to a tracking number and then trace the package.

One way of using DNT is when a number sequence is replicated on the tab, which also voids, ensuring that the right label can be assigned to a box, eliminating the risk of misreading or miswriting the number sequence on the label when noting what it has been assigned to.

## WEATHERPROOF



Weatherproof labels allow tamper evidence to secure unusual, external applications.

These labels can be applied to metal, plastic, and glass, with a flexibility that can adhere to uneven profiles and mixed materials. It is important to understand the location when specifying these labels i.e.: hot, cold, wet, dry, dirty, clean etc.

## ANY SHAPE OR SIZE



You can choose the shape and size of your labels. To ensure label consistency and accuracy a process using a "Die Plate" is applied to effectively stamp out each label.

This process for custom shapes or sizes can come at a one-off cost as a specialist die plate would need to be manufactured and then that plate can be used for as long as the die plates are within their lifespan.

## FINGER LIFT LABELS



Finger lifts are where a label's edges don't have adhesive on, so they are easier to apply by hand without the worry of getting adhesive on hands whilst applying them, making it easier and more efficient when applying them by hand.

These finger lift labels were designed specifically for the fast food sector as they are pressure sensitive permanent labels which stick to a variety of surfaces and come on a roll, with perforations and without a liner. This increases the speed of application for the operators and reduces waste.

## LINERLESS LABELS



Self wound perforated tape is also referred to as a linerless label solution, which can be applied automatically and manually. To apply, environmentally sustainable by reducing packaging waste by 100% per roll and by increasing roll capacity by 50% reduces shipping, carriage and storage costs!

## SURFACE PRINT



This is when a message or image is printed on the very top surface of the product, tape or label, so that it stays with the film when voided.

This printing can be anything from a barcode or numbers to a businesses logo or any other shape or pattern you can think of, totally customisable, additional layer of security.

## SUB SURFACE PRINT



This is when a custom message, QR code, barcode, numbers and countless more is actually part of the void message which remains once the product is voided.

This can be done on any permanent product and allows you to track what package has been tampered with.

Because it is part of the void once applied the message cannot be removed or replaced, making it easier to pinpoint where any tampering has taken place.

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**FIND OUT MORE**



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