

## Security Tapes: What Are The Options?



There are numerous options today when buying security tape. The first point to realize is that nothing is tamper proof or tamper resistant. If someone wants to tamper with a product they will be able to. Security tape comes into play by providing tamper evidence, or an indication that something has been tampered with. This tamper evidence or tamper indication is achieved with the aid of pressure-sensitive adhesives and materials.

Here we will examine some pros and cons of the different array of tamper evident tapes that are available today. This should help in selecting the appropriate type of security tape for the particular application.

The first question to ask is “what are you trying to secure, and on what surface (substrate)?” In most cases the answer is simply high valued items packaged in corrugated cartons. While corrugated cartons are a common substrate, there are different types: smooth, rough, recycled, or coated. Some tapes work great on some surfaces, but work poorly on others.



The most common type of security tape is simply custom printed carton sealing tape. This is also the least expensive option. The tape is usually a PVC or polypropylene with an aggressive adhesive suitable for boxes. It can be any color, but usually the imprint is printed diagonally, with patterns. If the tape is cut and then covered over by clear tape, the imprint will need to line up exactly, or else tampering is indicated. Proper imprints make lining up tampered

tape very difficult. One of my favorite examples of this choice is the tape that sealed my laptop computer carton. It was a simple, clear 2” wide tape, with the name surrounded by a pattern of x’s. If the tape was peeled away it was aggressive enough to tear the box fibers; if the tape was cut it would be very difficult to line back up.



One way to combat the above style of tape is to simply cover it over with wider tape, so that the original tape is totally hidden.

Recently, a product called “Tamper Red” was introduced. This product contains an extremely aggressive box adhesive. When the tape is peeled away, it leaves behind a red layer of tape; if the red

layer is peeled up, it will tear the carton. The tape can be custom imprinted with patterns to prevent cutting and lining up the tape. Also, this tape is 3.125” wide which prevents someone from covering the tape with standard 2” or 3” wide tape. The limitation of this product is that it is a water activated tape, so it requires a bit more time to apply it; on the other hand the tape is very strong, and is a good bet for heavy cartons.





Another style of tape, which is used more widely on consumer medicines and foods is the destructible film that flakes when an attempt is made to peel it away. This is generally too expensive for carton sealing applications, but is a good choice for the smaller jar or bag sealing applications. The tape is usually imprinted with a diagonal message that says “do not purchase if seal is broken.” The tape may also have serrated edges to further prevent peeling away. The tape can also be cut, but again with a proper imprint, relining up is very difficult.



The most common type of tape people seem to be looking for today is often called VOID tape or evidence tape. When the tape is peeled away it leaves behind an adhesive residue that displays a VOID or OPENED message. This type of tape can be used to seal cartons, drums, doors, and anything really. While this is the most expensive security tape option, there are different brands on the market, and prices differ. While all brands work on the same premise of leaving behind a message when peeled away, the adhesives vary. For example we tested a tape from the leading manufacturer in Asia. The product worked OK on smoother or coated cartons, but would



not work on recycled cartons. Recycled cartons shed their fiber more easily and therefore require a very sensitive “break away” product. In fact we tested four other US brands and only one brand consistently worked on recycled boxes, and even wood. This brand of tape contains a sensitive transfer adhesive, that leaves behind most if not all of its adhesive; roll edges are dry to promote easier handling. The other brands are not as sensitive and simply peel the boxes fiber away when pulled---in those cases it will pay to simply use an inexpensive carton sealing tape. However, for smooth or coated surfaces, all products tested ok.

How secure is this form of tape? When asked how they open cartons, most people say that they simply cut the tape, rather than peel it away anyway. If a person plans on tampering with a carton, they will more than likely cut the tape (assuming they have resealing tape in-hand), then seal it over with clear or other tape. This is where the imprint is important; usually a small pattern that when cut, will need to be lined up if the box is resealed. Small, diagonal imprints are preferred over large ones. We saw one brand that actually had a yellow strip down the middle. If it is sealed over with clear tape the yellow portion is activated and displays a message. This is a nice premise except that the tape can easily be covered over by a colored or wider tape, and it is extremely expensive.

Another consideration for security is the availability of the tape. Today all tapes mentioned here are much more widely available than they were a couple of years ago. There are companies on the internet selling as little as one roll of tamper evident tape. One of the companies we tested has been supplying their stock tape with their name and web site address imprinted on it. This compromises the whole point of tamper indicating products, since anyone, mainly employees, can easily purchase one or eight rolls of tape. At that point they can tamper with products and simply reseal with the tape they purchased. Therefore we strongly urge people who are candidates for this style of tape to purchase custom tape with custom, or unique imprints such as company logos. And when they do, they need to make sure the tape itself is stored in a secure location.

Written by: George Righter, MBA  
President  
Advantage Information Products, Inc.  
<http://www.RighterTrack.com>  
(215) 493-7191