

## About Carton Sealing

To help determine the best sealing method for your application, below is information about the most common sealing and closing methods.

- [Paper Water-Activated Tape \(WAT\)](#)
- [Plastic Pressure-Sensitive Tape \(PST\)](#)
- [Glues](#)
- [Staples](#)

### Paper Water-Activated Tape (WAT)

Water-activated tape is made primarily of white or natural color (Kraft) paper and starch-based adhesive. It's usually available in various widths and thicknesses and might contain multiple layers with fiberglass reinforcement. When the adhesive is activated with water, it penetrates the carton material and the tape forms a permanent bond with the carton.

### Common Terms

WAT, paper tape, reinforced tape, gum tape, gummed tape, reinforced gummed tape (RGT), non-asphaltic tape, Kraft (non-reinforced) tape

### Advantages

- Provides tamper-evident seal
- Difficult to remove without leaving obvious signs of tampering
- Easy to print on
- Retains integrity if punctured
- Recyclable
- Can be used in dusty or dirty environments
- Maintains seal in extremes of cold, heat, light, humidity
- One strip produces a sturdy seal
- Carton can be reused or recycled

### Disadvantages

- Requires water to activate
- Requires dispensing machine for application

### Best Uses

- Cartons containing heavy items
- Individual or different sized cartons
- Contents requiring protection from tampering or pilferage
- Automated or semi-automated case sealing

### **Plastic Pressure-Sensitive Tape (PST)**

A surface mount form of tape with a dry adhesive applied to a film. Both film and adhesive are made primarily of petroleum.

#### **Common Terms**

Plastic tape, PST, poly tape, packing tape

#### **Advantages**

- Portable
- Transparent

#### **Disadvantages**

- Not tamper-evident
- Made from non-renewable resources
- Repetitive motion injury risk from hand guns
- Tape fails very rapidly when punctured or torn
- Noisy, “chatters” when rolled
- Quickly deteriorates when exposed to UV light, cold, heat, humidity

#### **Best Uses**

- Lightweight cartons
- Low value products
- Cartons that will be palletized and shrink-wrapped
- Contents not requiring protection from tampering or pilferage
- High speed case sealing

### **Glues**

Adhesives that use polypropylene, which is flexible, soft but not pressure sensitive. Formulated to bond to a variety of substrates.

#### **Common Terms**

Hot, cold, and natural glues

#### **Advantages**

- Generally unaffected by cold, light or humidity extremes
- Adapts well to high-speed production packaging lines

#### **Disadvantages**

- Messy, high heat, fumes potentially harmful
- Leaking glue or high temperature may cause damage to product being packaged
- Significant equipment maintenance

### **Best Uses**

- Heavy products on high-speed packaging lines where all cartons are of uniform size, such as canned goods or paint

### **Staples**

Metal fasteners driven through the carton material by a device that also bends its two ends inward and flattens them so that they grip the material firmly.

### **Advantages**

- Holds up under stress
- Tamper evident
- Strong, robust seal

### **Disadvantages**

- Carton often destroyed when opened
- Difficult to open
- Potential injury to handlers
- Unacceptable for many shipping companies
- Requires additional corrugated liner or overlapped flaps
- Extra steps to process for recycling

### **Best Uses**

- Very heavy items that will be shipped on pallet by truck or rail

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