



Polyester Banding vs. Steel Banding

Some considerations to help you choose

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At one time, steel banding was the only choice for heavy duty applications. Now polyester (plastic) banding is another option. Advances in polyester technology have resulted in banding materials that---compared to steel banding---have some advantages, but also some drawbacks.

Polyester is often promoted as more environmentally friendly because some percentage usually comes from recycled materials. However, steel banding often contains recycled material as well. Advances in application equipment have made polyester more reliable, more consistent and more user friendly for some applications. Given all this, there are still good reasons to choose steel banding.

Steel Banding

Steel banding comes in rolls that are about a half-inch to three-quarters of an inch wide and about an eighth of an inch thick. It comes in regular duty and high tensile grades. The primary advantage is that steel banding is relatively stable – it stretches very little after it's applied to a load. It is also tolerant of sharp-edged loads like flat sheets of steel.

Steel banding is used to bear heavy loads and withstand rough handling. This is a significant advantage in applications where the load is stable (not prone to settling) and will be transferred multiple times before it reaches its destination. High tensile steel banding, has the additional advantage of being carbon reinforced. High tensile steel is suggested for situations where the load is subject to a jolt and/or additional break strength is required.

Steel banding (even when smoothed and de-burred) is a safety hazard for inexperienced users. Carelessly cutting a tightened steel band will cause it to lash and inflict deep gashes---the face is especially at risk. Because steel banding coils average 100 pounds each, it's difficult for some users to load them into a dispenser without incurring injuries. By comparison, the average polyester coil weighs about 50 pounds.

Steel banding can also scratch and tear the load---which means it's not a good idea to use it for loads with exposed paint or other vulnerable surfaces. It can also rust and stain the load.

Although steel banding doesn't stretch once applied, this can be a downside. If the load settles as a result of transportation or storage, the banding perimeter remains the same while the load perimeter becomes smaller. The result is that the banding is no longer holding the load tightly. It's not uncommon to see steel-banded pallets sitting in warehouses with the banding hanging loosely from the load.

Steel banding is also more expensive than polyester banding and the cost fluctuates because it's dependent on the price of the base metal---making it difficult to budget.

With all these downsides, you might wonder why steel banding is still so popular. The answer is that right now, there is nothing that can hold a heavy load over a long distance quite as well.

Polyester Banding

Polyester (plastic) banding tends to be less expensive than steel banding and safer to use. There are fewer user injuries. Lower price and fear of liability claims are both driving a large global shift to polyester banding. The band's rounded edges will generally not scratch paintwork, damage other surfaces, or damage the tires on handling equipment such as forklifts. The edges allow it to fit smoothly around irregularly shaped packages

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Polyester banding stretches (it can stretch as much as 25% after it's applied). While this has some negative implications, this property also allows it to continue to conform to a settling load much like a rubber band.

The biggest downside is that users need to purchase a new set of tools for polyester and this tooling can be expensive. Commonly used battery tools, which are the best choice for most volume users, can cost up to \$3,000 per tool. Polyester cannot be used on flat sheets of steel without edge protection because the sharp edges can eventually cut through the polyester.

Up until very recently, polyester could not be effectively applied to smaller rounded loads. But a tool was developed to solve the problem.

Next Generation Polyester

The newest polyester banding, such as High-Strength Tenax™, combines the strength and stability advantages of steel and with the user-friendly, damage resistant advantages of plastic.

It is also fully recyclable.

Ultimately, decisions on which type of banding to use should be based on experience and what the specific application calls for. Some considerations include:

- How stable and heavy is the load? Light, unstable loads favor polyester. Heavy, stable loads favor steel.
- How far does it need to travel? Long travel times favor steel.
- How many times will it be loaded and unloaded before it reaches its destination? Multiple loading and unloading operations favor steel.
- Will scratches and abrasions devalue or ruin the load? Loads susceptible to devaluation or ruin from scratches and abrasions favor polyester.
- How experienced is the user in applying banding? Inexperienced users are better off with polyester.

Cost is actually a relatively minor consideration because the cost of the banding will always pale in comparison to the cost of the contents of the load. The primary consideration must always be whether or not the banding material will increase the chance that the load will arrive unscathed.

Choosing a Distributor

Among these 2 banding materials, there are many excellent product options. You should look for a distributor with packaging expertise who will take the time to strategize the best products and equipment for your specific needs.

B2B Industrial Packaging LLC

B2B Industrial offers the best packaging products, service, and solutions for businesses ranging from Fortune 500 companies to small growing enterprises. With a base of more than 2,000 active clients, we sell industrial packaging products, such as such as banding carts, strapping carts, steel strapping, polyester banding, polypropylene banding, steel banding seals, stretch film, and nails/fasteners. B2B Industrial serves clients primarily in the Central Great Lakes, Southern and Northern California, Dallas, and Houston areas and operates a banding tool repair and strapping tool repair facility at its Addison, Illinois headquarters. To contact B2B Industrial Packaging, call 1-800-413-2463 or visit <http://www.B2BInd.com>.