



Having Problems with Labels Falling Off?

Those simple looking sticky things can often present the oddest difficulties! Customers frequently come to us with either of two different extremes with labeling applications - labels that were meant to be thoroughly removable that NEVER come off, and equally annoying - labels that fall off the items.

A label is made up of two basic parts: a surface material (or substrate) that may or may not be top-coated, and adhesive. Let's talk about the adhesive part for this article.

It is crucial to know exactly what surface the label is to adhere to, such as cardboard (corrugated or paper board? what degree of wax is on the corrugate?), metal (painted metal vs. unpainted?), plastic (polystyrene or butylene?) These seemingly minor differences can yield quite different adhesion results. It's imperative that the surface to be adhered to be free of dirt, dust, metal or plastic shavings, etc. and it must be dry - no moisture, oils or solvents.

Adhesives are broken into two groups: rubber (natural and synthetic latex) and acrylics. Traditionally rubber-based adhesives are used on paper products - corrugated boxes and folding cartons like cereal boxes. These adhesives flow around the paper fibers creating the "hold." Plastics and smooth or textured metal surfaces require more adhesive elements that bond to the surface of the material, therefore acrylic adhesives are recommended because they chemically adhere to these surfaces.

Testing your labels consists of applying sample labels to the items *in their intended environment* and seeing if the label adheres, given as much test time as is feasible. A label adhesion is judged in two ways - initial (instant) tack and set-up tack. Initial or instant tack is how strongly the label adheres immediately after applying the label. Set-up tack is the final tack or adhesion value after the adhesive reaches maximum bonding. Some adhesives take over 72 hours to achieve their maximum adhesion.

There are also numerous types of removable adhesives used in specific labeling applications. Some are more removable than others, some are *re-positional*, meaning they can be initially re-positioned, and then eventually become permanent. Freezer-grade labels have specialized adhesives that react at two different environmental levels: first at the *application* temperature (i.e. 68 degrees F), and second at the *service* temperature (i.e. -28 degrees F). Both are important to consider; is the label going to be applied to an already frozen product or inside the freezer space? Or is the label to be applied on room-temperature products and then moved to the freezer?

The moral to the story is to test, test, test. The other moral is to find a supplier with years of experience and work with them to solve your particular labeling needs. The Danby Group has been helping solve its customers' label problems for over 30 years. We provide Genuine Zebra Labels and Ribbons – on our "Labeling" tab on our website is a download to their helpful Label/Ribbon Selector Guide. Feel free to download this terrific guide.