

Examining the Total Applied Cost of Pressure-Sensitive Label Decoration

Looking beyond cost-per-thousand

Consumers can and do spend just seconds making a decision at the store shelf. The label is the last chance to communicate and identify your brand with the consumer. It is a precious moment of truth. Ironically, however, the label represents only a fraction of the entire cost of the package.

This white paper examines the total cost associated with label decoration. Consumer product goods (CPG) companies typically look only at material costs based on the relatively straight price-per-thousand-labels approach. It is an easy analysis, but incomplete because if you want a truly accurate assessment, you have to include other application factors related to operations, logistics and maintenance.

Reviewing Costs Associated with Decoration Technologies

There are many labeling choices available – direct print, wet-glue, in-mold, shrink and pressure-sensitive. Examining the costs associated with each decoration technology can significantly influence which labeling method provides the best and most cost-effective options.

The total applied cost (TAC) model is a structured approach that looks at the full cost of applying alternate decoration technologies to the package, such as cut and stack versus pressure-sensitive label.

This approach offers a more realistic perspective on the cost to decorate a package. The model incorporates a range of factors that include the cost and efficiency of label application, investment in capital equipment and machinery change parts, logistics, and inventory control, as outlined in the table on the right.

When all these cost elements are taken into consideration, brand owners and contract packagers find that pressure-sensitive labeling can often be the most cost-effective and complete labeling choice over other technologies.

For instance, in-mold applications typically require a manufacturer to store large quantities of pre-labeled containers on-site to cope with demand variables. Different flavors, scents, new product introductions, regional promotions, etc., have to be considered when a product is produced. These factors create complexity when running different labels on the same line, along with additional downtime when changing between variations, which ultimately increases labor and production costs. Pre-decorated containers also require additional storage space and inventory management costs, as well as obsolescence costs for containers that cannot be used due to SKU or label change. These elements are all part of the total cost of a label.

Total Applied Cost Elements

Price/Thousand Labels
• Material Costs
• Printing & Conversion Costs
• Manufacturing Window/Lead Times
Applied Cost Elements
• Application Equipment Investment
• Operational Cost of Application Lines
• Application Flexibility
• Application Speed
• Application Downtime
• Logistics & Inventory Control

Source: Educational Division of FINAT

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Glue-applied labels may compare favorably to laminated structures like pressure-sensitive on a price-per-thousand basis. However, what can be misleading and frequently absent from the equation is the added time needed for machine setups and startups with glue-applied applications, the downtime that occurs during changeovers, the messy cleanup and machine maintenance required, the increase of misapplied labels and the significant costs of change parts.

Understanding the TAC model can help brand owners make better informed packaging decisions versus relying on just cost-per-thousand comparisons. Avery Dennison has developed operating cost models to help manufacturers understand the total application costs of their labeling processes allowing manufacturers to have a more holistic cost view of the labeling component of the package.

Pressure-Sensitive Labels—Application and Decoration Versatility

Pressure-sensitive labeling is a cost-effective decoration that will improve both brand image on the shelf and the bottom line through increased operational efficiencies. Pressure-sensitive technology provides the kind of visual impact other label technologies cannot, such as dynamic label shapes or a crystal clear “no label” look.

The versatility of pressure-sensitive labels is due in large measure to the virtually unlimited choice of available substrates and adhesives. Material choices include films, papers, metalized papers, foils and holographic films. Adhesive options include, but are not limited to, cold temp, permanent, removable, repositionable and pasteurization friendly.

Add in the diversity of printing and converting techniques available such as metallic inks, embossing, and hot and cold foiling, to sub-surface printing and re-sealable designs, and all of these elements can help differentiate CPG brands and accelerate sales growth.

Unlike other label technologies, pressure-sensitive labels apply equally well to different types of packages, opening the possibility of innovative and new mediums for food, beverage, household and personal care products. From bags, boxes and tubes; glass, rigid and semi-rigid plastic, or “squeezable” bottles; stand-up, zippered or freezable pouches; to re-closures, lidding applications, folding cartons, gusseted bags, single-servers—every package can be made more appealing with a pressure-sensitive label.

Due to the ease of application, different shapes, sizes and designs, pressure-sensitive labels can be applied with minimal changeover costs, which are a key TAC model cost element. This flexibility enables promotional labels, regionalization, seasonal specials and themed campaigns to be deployed more cost-effectively. Security elements like tamper-proof labels, and item-level tracking through RFID labels can also be implemented.

Finally, pressure-sensitive technologies allow for faster line speeds and reduced change part complexity. For instance, typical front and back label change parts for glue-applied labels can cost up to \$35,000 compared to less than \$8,000 for pressure-sensitive applications.

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Looking at the Whole TAC Picture

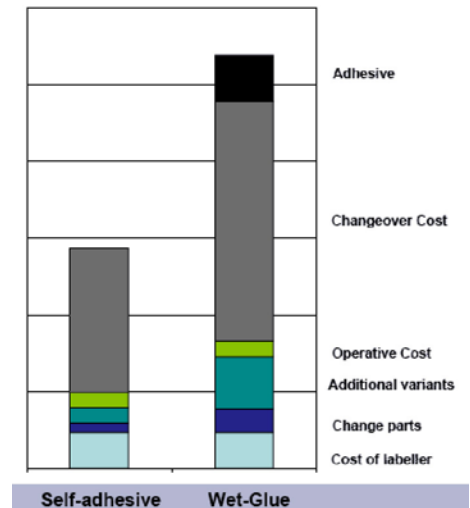
Taking a holistic view of the costs associated with different product decoration technologies can significantly influence the selection of a labeling method.

In a recent case study analyzing wet-glue application costs compared to pressure-sensitive techniques, research from FINAT found that changeover and downtime costs relating to switching between variants were the largest single contributor between wet glue and pressure-sensitive application costs.

Operational Efficiencies of Pressure-Sensitive Labeling

Advances in both labeling equipment and material technology have positioned pressure-sensitive labels as a cost-effective and operationally efficient means to decorate containers. For example, pressure-sensitive labels:

- **Are accurate.** All applicator systems incorporate a means of peeling the liner away from the label, placing it in position, then applying a low degree of pressure to ensure contact with the labeling surface. The liner takes the tension of the web, thereby controlling application accuracy for perfectly labeled containers, and better print-to-die-cut registration results.
- **Are clean.** Labels come already coated with adhesive, which mean no mixing, mess or cleanup during application. Set up and changeover time for glue-applied labelers can be up to three times that of the “plug and play” pressure-sensitive labelers.
- **Reduce inventory.** Pressure-sensitive technology allows for late-stage brand development and differentiation by reducing physical inventory and the carrying costs associated with pre-decorated applied ceramic labels and in-mold containers. Also, pressure-sensitive roll products can be kept “together” allowing for no loose labels with a controlled inventory management system.
- **Can be applied anywhere, at anytime.** Label materials and adhesives can be tailored to suit variations in temperature, humidity, natural and artificial changes in climate, and the surface to be labeled. This eliminates the possibility of “curl” that is prevalent with sheeted labels. Plus, multiple graphics and embellishments can be handled in a single pass.
- **Are fast and flexible.** Pressure-sensitive labelers are a plug-and-play solution that offers speedy changeovers and application speeds up to 1,000 containers per minute. This makes it easy to quickly leverage a line extension and get multiple new SKUs into the marketplace in a timely manner.



Conclusion

CPG companies and brand owners have many options to decorate and promote their products. Each decorating alternative must be carefully evaluated before a decision can be made, but many times it is the label and graphics that ultimately drive a consumer’s decision to purchase. Selecting the most appropriate method of product decoration requires a much wider range of costs factors.

Avery Dennison, Roll Materials leverages its credibility, resources and hands-on expertise to give CPG companies a stronger market position. It educates CPG companies about the overall value pressure-sensitive labels can deliver to the brand, as well as the operation.

For more information, visit enhanceyourbrand.com or call 440.534.4841.



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