# Evaluating shrink sleeve material options

Choosing the proper shrink sleeve material once you've decided on the labeling method is crucial. Proper material selection will ensure your applied sleeve label delivers desired product differentiation, and remains attractive as you've designed it to be. Thorough research will help verify that your shrink sleeve material meets cost and performance requirements that may be unique to your product and application.

Working with experts with experience evaluating shrink sleeve material options will guarantee you experience all of the benefits of this solution, with none of the drawbacks.

**Finding the right shrink sleeve material**

While shrink sleeve labeling provides brand owners with creative alternatives for product differentiation, the technology introduces unique design and operational challenges. Variables such as container shape, the labeling equipment in use, design of the shrink tunnel and even the product in the container can directly affect shrink sleeve label material selection.

Polyvinyl chloride (PVC), a material familiar to many, was the primary substrate developed for the shrink sleeve label market. It remains in broad use today and benefits from a robust and well-developed global supply chain, which can make it a lower-cost option. But environmental sensitivities related to phthalate and chlorine content have been widely communicated, and have created concerns about use of PVC as a label or packaging material.

The primary material used in shrink sleeve labeling today is Polyethylene Terephthalate Glycol (PETG). Key benefits of PETG use include its widespread availability, overall film clarity, stability compared to other material options and shrink capability of up to 78 percent. In combination, these features make PETG generally fit for use in most applications. The material cost typically is at a premium relative to PVC. Generally, PETG shrinks at a higher rate than other options, which requires proper control of shrink tunnel conditions to insure label appearance is not compromised.

It is also important to remember that the shrink force of a material can have an impact in the pre-labeling of empty containers, or on labeling of thinner wall containers. Since PETG can demonstrate a higher shrink force, care must be taken to ensure shrink conditions are managed

properly to avoid label or even container distortion. Overall, PETG is a shrink sleeve material that's well suited to this rapidly growing subset of labeling operations.

Oriented Polystyrene (OPS) and Polylactic Acid (PLA) are other shrink sleeve materials used in selected applications. While OPS offers higher yield and a more controlled shrink rate, it requires careful handling and different converting materials and conditions. There is a lot of interest in PLA as it is a bio-based polymer material. Limited sources of supply, cost and handling issues have limited its adoption to date.

**Shrink sleeve materials and your operation**

As mentioned, shrink sleeve material selection is dependent upon several factors including cost, container shape and labeling equipment. There is also considerable variability within categories of shrink sleeve material, required proper selection of material grades within a category to insure adequate operational performance along with the desired finished label appearance.

Differing grades of PETG, for example, can be used depending on the application. Containers requiring over 60% shrink typically defer to use of higher shrink PETG grades. These products require careful control of shrink conditions in the shrink tunnel. An additional unique requirement in the segment relates to sleeve labeled cups, with a uniform, decreasing container radius. These applications often require application of a backside adhesive to hold the sleeve in place on the container.

In all, there's a wide array of factors that should be considered when selecting a shrink sleeve material. It's always a good idea to discuss your particular labeling needs with experienced professionals. If you're ready to discuss shrink sleeve material selection, get in touch with us to schedule a consultation.