

## Performance Characteristics of Pressure Sensitive Adhesives

There are three different performance characteristics your pressure sensitive adhesive must pass for your label to successfully complete its' job.

**Initial tack** – this is the immediate holding power of a label upon contact with the substrate. An adhesive with a high initial tack will grab the substrate quickly. An adhesive with low initial tack will exhibit a low level of adhesion when first applied and may remove cleanly from the product.

**Ultimate adhesion** – this is the ultimate holding power that an adhesive will achieve as it penetrates into the substrate. The time required for an adhesive to fully adhere to the product can vary from 2 to 24 hours depending on the conditions, adhesive and substrate. Initial tack and ultimate adhesion are not necessarily related to each other.

**Shear resistance** – this is a measure of the internal cohesive strength of the adhesive. The shear of the adhesive is an indication of how soft the adhesive is. A low-shear (soft) adhesive has more of a tendency to flow (resulting in higher initial tack) and a higher chance that the adhesive will split apart if put under stress. A high-shear (firm) adhesive is less likely to split under stress because of its' good internal cohesive strength, and will be less likely to flow (and possibly have a lower initial tack).

The good news is you don't have to worry too much about these technical details. By sharing the performance requirements of your label with your supplier they can work with you to determine the best solution for your label application needs.