

Non-Wicking Properties

The ability of a material to resist moisture from wicking into the polyester yarns is important for both structural and signal degradation reasons. Continuous filament polyester yarn can pull water into the space between the filaments by capillary action. If allowed to do so, this moisture can affect the adhesion properties of the material, causing seam problems or delamination of the coating compound. Even small amounts of moisture present in the base fabric can be a source of fungal growth, causing the material to discolor. This creates an signal degradation problem.

Kynar® and Tedlar® has been designed to achieve non-wicking properties by the selection of polyester yarns, the adhesive coat, and the coating procedure. The application of the adhesive coating compound that fully saturates the base fabric is an effective way to eliminate wicking. In recent years, another means is the use of anti-wick polyester yarns to reduce the problems associated with wicking. The yarns are treated with a finish by the yarn producer to reduce wicking.

A wicking test is performed per ASTM D 751 Wicking of Coated Cloth section by immersing a one-inch strip of synthetic resin coated polyester fabric into a dye water solution. The sample is exposed on one end for a period of 24 hours, then removed from the solution, and examined for wicking.

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