

## **Advanced Uniform Fabric Technologies Are Good News for Workers and Employers**

*By Mary Anne Dolbear*

In the past, getting your employees into uniforms may not have always been easy. You may have faced resistance from employees concerned about appearance and comfort, as well as the level of protection against hazardous work conditions provided by uniforms.

Today, however, uniform manufacturers and service providers make it less complicated and less difficult to meet employers' and workers' needs. Today's uniforms are engineered to be better than ever before – they are less constricting and soils are much more easily removed. They even provide an increased level of safety for employees.

Uniform service companies (those who rent, lease, and sell uniforms) provide assistance to customers that goes beyond simply providing them garments, picking up dirty uniforms, washing them, and delivering clean ones. These companies also consult with clients to make sure that they are choosing the uniform fabrics that best meet their objectives, offering performance-related information about the latest textile technologies for workwear and soon-to-be-available options from textile manufacturers.

The Uniform and Textile Service Association (UTSA) is an international trade organization that represents these companies and works to convey information about new uniform textile options.

### **New Choices for Wearability and Durability: 65/35 and Beyond**

For the past few years, 65 percent cotton/35 percent polyester blends have been extremely popular as uniform fabrics for active workers. Compared with 100 percent cotton, these blends offer durability that can enable them to last two to three times longer. The strong inherent color retention properties of the polyester in the blends enable colors to withstand even high-temperature industrial laundering, while 100 percent cotton does not typically perform as

well in high-intensity laundering. Blends developed for the uniform market have excellent soil release properties built into them, making it possible to eliminate even the worst stains. Most employers like seeing their workers in fabrics that are less prone to wrinkling.

Active workers, however, sometimes perceive that blends are less breathable than 100 percent cotton, and their reduced softness may prove frustrating for those whose tasks require a great deal of movement.

New textiles being introduced now into the uniform marketplace combine the advantages of both all-cotton fabrics and cotton/poly blends. These fabrics have already proven themselves in the athletic and outdoor recreation markets. Known as *hydrophilic fabrics*, they have become familiar to consumers under brand names such as Nike's Dri-FIT.

The newest hydrophilic fabrics used in work apparel are 100 percent polyester knits. These aren't the polyesters of the 1970's. These fabrics use spun yarns that give a truly cotton-like feel, creating soft garments that people like to wear. Hydrophilic fabrics have been very well-received by athletes and outdoor enthusiasts in large part because of their moisture management systems. Perspiration is moved away from the skin and then evaporates, enhancing comfort for very active workers and also providing odor resistance because without available moisture, odor-causing bacteria cannot survive in large numbers. Wicking properties also enhance safety for employees who work indoors in hot environments and outdoors in cold weather, or who work in conditions in which temperatures can fluctuate between hot and cold.

Color-retention, durability and wrinkle resistance of hydrophilic fabrics are as good as or better than the same properties in 65/35 blends. Darker colors in particular have excellent color retention with this technology. Soil release properties built into hydrophilic uniform fabrics ensure that these new uniforms can be kept very clean.

Also on the horizon for uniform fabrics are those with stretch features. Lycra®, which is commonly incorporated into fabric blends in consumer clothing to add stretch capability, is less

suiting to workwear, because it can be hot to wear during extended activity. Also, its limited durability may make it unattractive to employers. However, wicking Lycra® is now available and may increase the wearer's comfort during active work. Or, instead of using Lycra®, a mechanical stretch can be woven into uniform textile fibers. The result is a garment with comfortable stretch capability, and with soil release and other features found in 65/35 blends.

### **Uniform Technologies for Special Needs**

Janitorial and maintenance workers in certain settings may need garments that have anti-microbial or flame-resistant properties.

Workers whose job settings put them at risk for exposure to pathogens may need uniforms that offer some protection. A variety of fabrics available for uniform production have anti-microbial properties. One of the most interesting new textiles uses silver fibers, creating natural bacterial resistance and odor resistance.

Masks and gloves also may be needed to help protect against pathogens. Uniform and textile service companies can provide these items in addition to uniforms, and can help employers choose designs that will be effective and as comfortable as possible for employees. However, employers' education of new workers on safety issues still plays the strongest role in motivating employees to wear safety gear such as gloves, masks and lab coats. Regularly scheduled breaks away from areas requiring protection also can help reduce non-compliance with protective requirements by giving employees the opportunity to remove protective wear.

Fire-resistant uniforms also may be needed by some workers, such as welders. The National Fire Protection Association has introduced NFPA 70E, a voluntary standard that employers are encouraged to implement to increase worker safety. The standard covers workers in a variety of occupations, including maintenance personnel who install, maintain or repair electrical systems. The standard covers five risk categories based on worker tasks, requiring varying combinations of flame-resistant and protective wear depending on the risk category.

(Flame-resistant clothing is ranked using Arc Thermal Performance Values (ATPVs)).

Alternatively, employers can choose to use a two-category compilation of flame-resistant clothing recommendations for daily work attire, which covers many types of jobs.

Until recently, flame-resistant garments have frequently been the subject of complaints from employees who became too warm while working in them. However, today's flame-resistant fabrics are more breathable and comfortable than those of the past, which helps motivate employees to wear the garments that they should be wearing.

Alternatives include a flame-resistant finish that can be added to cotton garments, with the finish also increasing the fabric's color retention. Nomex, an inherently flame-resistant textile, is available for production of uniform pants, shirts, coveralls and outerwear.

Also of increasing interest to some employers is heavyweight denim, which can be adapted to meet flame-resistance standards. Denim's popularity as a comfortable and attractive fabric, and its durability make it a worthwhile option to consider. It is available in pre-washed lots for uniform production.

A textile service company will help you identify the impact of each job activity on clothing and select uniform textiles that meet the specific needs of your company and workers, so that all of your employees can look professional and be comfortable and safe while doing their jobs. Visit [www.uniforminfo.com](http://www.uniforminfo.com) to learn more or to find a UTSA member by location.

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