



Laundering Recommendations for Amplitude™ Flame Resistant 88/12 Garments

You may use standard home laundry detergents to wash Amplitude garments, **but do not use chlorine bleach, liquid peroxide bleaches or detergents containing hydrogen peroxide, fabric softeners or starch**. FR garments are performance based apparel. As such, the following laundering guidelines are offered to ensure the garment performs in the manner it was designed on a consistent basis.

Home Laundering

When home washing garments made from Amplitude fabrics, you may use typical home laundry detergents utilizing any wash temperature recommended by the detergent. Do not use other soaps (tallow soaps contain animal fats which are flammable). Garment stains may be treated with a non-bleach type commercial stain removal product. Repeated chlorine bleaching damages cotton and compromises fabric strength. This may compromise the FR chemistry that is permanently chemically bound to the cotton in the garment. Do not use home wash detergents containing hydrogen peroxide. Starch, fabric softener, and other laundry additives can coat the fiber and mask flame resistant performance. They may also serve as fuel in case of combustion. Flame resistant apparel should be washed using soft water (< 4 grains). Hard water can affect cleaning and may contain mineral salts that can cause insoluble deposits on the fabric which may serve as fuel if garments are exposed to an ignition source.

Commercial Laundering

FR cotton and cotton blend fabrics have similar shrinkage expected in regular cotton garments. Hotter water temperatures generally cause greater shrinkage, but may be required to remove certain soils. It is important to remove flammable soils as they may compromise FR performance. Amplitude fabrics maintain their FR performance for the useful life of the garment when washed according to care instructions. During commercial laundering, Milliken recommends washing garments according to the NFPA 2112 guidelines. For best colorfastness and garment appearance, use wash temperatures at or below 150° F, however; garments may be washed at up to 165° F. Milliken recommends washing FR garments separately from other garments. Use the correct water level for the load and do not overload the machine. When drying, do not over dry the garment. If dried either too long or too hot you may get excessive shrinkage (typical for cotton, in excess of 5%). If desired, iron with a synthetic/cotton iron setting, with or without steam. Do not use starch.

Dry Cleaning

Amplitude cotton/nylon garments may be professionally dry cleaned. Either petroleum solvent or perchloroethylene can be used. When using petroleum solvent, it is necessary to ensure that all solvent has been completely dried from the garment. With either solvent type, the garments must be free of redeposition of any kind.

The information in this report is based on the results of testing in accordance with NFPA 2112-2007, NFPA 70E-2004, ASTM 1506-02, and additional laboratory and commercial laundry testing.

Guaranteed flame resistance for the life of the garment when washed according to care instructions.

Please Note: Amplitude fabrics are innovative, high-tech, flame resistant materials intended to be used in garments that supplement personal protective equipment that reduce the flammability risks of momentary exposure to electric arc flash and flash fire hazards. They may be used as a layer of, but are not intended for use as the primary protection in fire fighting garments or other products subject to repeated or extended exposure to heat or flame except for Amplitude fabrics that are explicitly certified in writing to meet NFPA 1977 for use in wildland fire fighting garments. Use caution near sources of flame or intense heat and do not launder with bleach or fabric softeners. As each customer's use of our product may be different, information we provide, including without limitation, recommendations, test results, samples, care/labeling/processing instructions or marketing advice, is provided in good faith but without warranty and without accepting any responsibility/liability. Each customer must test and be responsible for its own specific use, further processing, labeling, marketing, etc. All sales are exclusively subject to our standard terms of sale posted at www.milliken.com/terms (all additional/different terms are rejected) unless explicitly agreed otherwise in a signed writing.

US Patent # 7,713,891 and other patents pending

