



CARE & CLEANING INFORMATION FOR FR COTTON & FR COTTON & SPANDEX BLEND KNITS

These garments are made with an FR treated Cotton that provides the look and feel of regular t-shirts. The addition of Spandex and knit construction allows for a decent amount of stretch and comfort.

Any flame-resistant garments should be removed immediately and replaced with clean FR apparel if they become fouled with flammable material.

These garments should be washed using soft water (water hardness should not exceed 25 ppm or 1.5 grains). Hard water adversely affects cleaning, resulting in increased detergent usage. Hard water contains mineral salts that can form insoluble deposits on the surface of fabrics. Buildup may negate the flame-resistant characteristics of the garment and may serve as fuel if garments are exposed to an ignition source.

Laundry temperatures up to 105°F are best for good colorfastness. Processing in hotter formulas may be required to remove soils but could affect color and shrinkage.

Important considerations are temperature control in washing and drying and removing flammable soils or chemicals that can overwhelm or mask the FR properties.

HOME WASH

- Wash and dry separately to prevent accumulation of lint.
- Pre-treat greasy stains and do not overload the washer to help insure removal of soils.
- Turn garments inside out when washing and drying for best results.
- Garments may be washed in warm water 105°F using any typical home laundry detergent. Do not use tallow **soap**.
- Tumble Dry using Permanent Press settings.
- Water hardness should not exceed 25 ppm or 1.5 grains. Hard water precipitates soaps and can result in the build-up of calcium and magnesium salts. These can serve as fuel in the event they are exposed to an ignition source.
- Do **not** use chlorine bleach. Do **not** use starch or fabric softeners as they may coat fibers and mask FR performance and/or serve as fuel in the event of garment ignition.
- Do **not** use products containing hydrogen peroxide.
- Do **not** over dry.
- Shrinkage up to 7% can be seen with knits.
- For maximum flame resistance, greases and oils must be thoroughly removed. If home procedures do not accomplish this, commercial laundering is recommended.

INDUSTRIAL LAUNDRY

- It is important that formulas are developed using detergents and wash temperatures adequate to thoroughly clean all contaminants from garments. For best results, wash temperature of **120°F** is recommended. Do **not** exceed **140°F**.
- Use non-ionic formulas. Do not use natural soaps (anionic or tallow soap) or silicate supplemented detergents. Soft water is recommended. Hard water precipitates soaps. It also contains calcium and magnesium salts. These products can build up on the fiber surfaces, coating the fabric and masking FR properties.
- **Chlorine bleach (sodium hypochlorite) and hydrogen peroxide (oxygen bleach), whether separate or contained in detergents, must be avoided.** Repeated exposure to bleach can destroy the FR polymer and make the garments non-protective.
- Starch, fabric softeners, and other laundry additives can coat the fiber and mask the FR performance or serve as fuel in case of garment ignition; therefore, use is not recommended.
- If garments are heavily soiled with particulate or abrasive soils, a flush at the beginning of the cycle will help reduce abrasion in the wash wheel. Wash formulas and load sizes should be set up to minimize redeposition and fabric abrasion.
- Extract by methods typically used for regular cotton and cotton blend garments.
- Condition at a stack setting of less than 165°F is recommended, so fabric temperature measured in the basket does not exceed 280°F. Normal shrinkage of 5 % to 7% can be expected. Excessive shrinkage may occur if overdried.
- If desired, garments may be pressed with an iron on permanent press settings

REPAIR AND MENDING

- Minor repairs that do not affect the integrity of the garment should be made with like materials by sewing on patches or darning small holes.

The information in this bulletin is based on the results of testing in our laboratory and information from the fabric vendor. It is provided for your guidance and knowledge. As of the publication date, this bulletin contains up to date information on care and cleaning. Please visit our website at www.bulwark.com for the latest information.

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