

## 10 Questions About Laundering Bulwark™ Excel-FR™ Flame Resistant 100% Cotton and Excel-FR ComforTouch™ 88% Cotton/12% Garments at Home

1. *What wash cycle and water temperature should I use?*

Wash in a Normal or Cotton cycle at any water temperature. FR cotton and cotton blend fabrics have the same shrinkage expected in regular cotton. Hotter water temperatures generally cause greater shrinkage, but may be required to remove oily soils. It is important to remove flammable soils possible as they can serve as fuel.

2. *How do I wash these garments?*

Use soft water (less than 4.0 grains). Hard water contains mineral salts that can form insoluble deposits on the surface of fabrics that can negate the flame resistant characteristics or serve as fuel if garments are exposed to an ignition source. Use any typical home laundry detergent. Do not use tallow soap. Home wash products are clearly labeled. For example, “Tide® detergent” or “Dial® soap” is stated on the package. Stains may be treated with any of the commercial stain removal products. **Do not use chlorine bleach or liquid non-chlorine bleaches.**

3. *Do I have to wash these garments separately?*

As long as washing recommendations are followed and the garments are not soiled with contaminants you would not want mixed with your family wash, they may be combined in wash loads.

4. *Why “No bleach”?*

Repeated chlorine bleaching destroys the FR polymer. Removing the polymer reduces the flame resistance of the garments. Chlorine bleach will also remove dye causing accelerated color loss. Powdered home wash detergents containing perborate and other “color safe” bleach alternatives, either liquid or powder, will not affect the flame resistance of the garment. Do not use home wash detergents containing hydrogen peroxide.

5. *What about other laundry aids?*

Starch, fabric softeners, and other laundry additives can coat the fiber and mask flame resistant performance. They may also serve as fuel in case of combustion. Their use is not recommended.

6. *What about drying and ironing?*

Do not overdry. If dried either too long or too hot you may get excessive shrinkage (more than 5%). If desired, iron with normal cotton settings. Do not use starch.

7. *Any other suggestions?*

**Turn the garments inside out before wash to reduce streaking from abrasion of stiff new fabric.** Use correct water levels and do not overload the machine.

8. *Can these garments be dry cleaned?*

Yes, all of the FR cotton and cotton blend garments can be dry cleaned with exception of the FR denim jeans. Either petroleum solvent or perchloroethylene can be used. Do not dry clean indigo dyed FR denim as the dye will bleed into the solvent and the denim will fade.

9. *How do I repair these garments?*

Minor repairs that do not affect the integrity of the garment may be made using the repair kits available from Bulwark Customer Care.

10. *How long will the FR properties last?*

When washed by the prescribed laundry procedures, the durability of the flame resistance of these garments is guaranteed for the useful wear life of the garment.

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](http://www.bulwark.com) for the latest information.