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Standard Guide for Home Laundering Care and Maintenance of ~~Flame, Thermal~~ ~~and Arc Resistant~~ Flame Resistant or Arc Rated Clothing¹

This standard is issued under the fixed designation F2757; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This guide provides recommendations for home laundering of clothing that is ~~flame, thermal, and arc resistant~~ flame resistant or arc rated. These recommendations address the home laundering process. Home laundering is an effective cleaning process for flame resistant or arc rated garments; follow all label care instructions.

1.1.1 This guide does not apply to ~~dry cleaning of flame, thermal, and arc resistant~~ industrial laundering of flame resistant or arc rated clothing. For more information on ~~dry cleaning~~, follow label instructions industrial laundering, follow Guide [F1449](#) or contact your garment supplier or fabric manufacturer. ~~supplier~~.

1.1.2 This guide does not apply to ~~industrial laundering of flame, thermal, and arc resistant~~ dry cleaning of flame resistant or arc rated clothing. For more information on ~~industrial laundering~~, dry cleaning, follow Guide [label F1449](#) instructions or contact your garment ~~supplier~~ supplier or fabric manufacturer. Dry cleaning indicates cleaning by a professional dry cleaner.

1.2 ~~When garments are laundered properly, using the proper detergent, home laundering is an effective cleaning process.~~ The National Institute for Occupational Safety and Health (NIOSH) recommends leaving clothing soiled with hazardous chemicals at work to be laundered by the employer or, if such clothing is washed at home, to launder separately from the family wash.

1.3 It is important that potentially flammable contaminants are removed from garments during the wash process. If flammable contaminants are not removed, the flame resistance of the garment may be compromised. Effective cleaning and proper maintenance of the protective characteristics of flame resistant or arc rated clothing should include consideration of cleaning, repair, and replacement.

1.3.1 To reduce the potential of employees wearing garments contaminated with flammable substances, the end user should analyze the soil conditions to which a ~~worker~~ wearer may be exposed, along with the effectiveness of the wash procedure. ~~In the event home laundering~~ If it is deemed ineffective, alternative effective solutions should be pursued (dry cleaning, industrial laundering, laundry, surfactants, disposable FR coveralls, etc.).

1.4 ~~Certain laundry chemicals that may have an adverse effect on fabric flame resistance are identified in this guide and should not be used.~~ It is important that the processes and materials used to launder flame resistant garments are compatible with the FR materials to ensure that the FR protection of the garment is not compromised during the laundering process.

1.5 It is the responsibility of the end user to determine if their laundering method is the appropriate care and maintenance procedure for their application. (See [Appendix X1](#) and [X1.1](#).)

1.6 This guide does not apply to specialized protective garments such as specialized firefighter turnout gear and proximity firefighter ensembles.

1.7 This guide also provides recommendations for inspection criteria that are significant to the performance of ~~flame, thermal, and arc resistant~~ flame resistant or arc rated clothing.

1.8 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.9 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

¹ This guide is under the jurisdiction of ASTM Committee [F23](#) on Personal Protective Clothing and Equipment and is the direct responsibility of Subcommittee [F23.80](#) on Flame and Thermal.

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2. Referenced Documents

2.1 *ASTM Standards:*²

D123 [Terminology Relating to Textiles](#)

F1449 [Guide for Industrial Laundering Care and Maintenance of Flame Resistant or Arc Rated Clothing](#)

F1494 [Terminology Relating to Protective Clothing](#)

3. Terminology

3.1 *Definitions of Terms Specific to This Standard:*

3.1.1 *care and maintenance, n*—effective cleaning to remove soil and maximize useful life of garments while maintaining (not removing) protective properties and procedures for inspection, repair, and removal from service.

3.1.2 *end user, n*—the entity or organization whose employees ultimately wear the ~~flame, thermal, and arc resistant~~ flame resistant or arc rated clothing and is responsible for care and maintenance of the clothing.

3.1.3 *soil, fabric, n*—~~dirty or other foreign substances which become attached to the surface of protective clothing in~~ textiles, a planar structure consisting of yarns or fibers.

3.1.4 *wearer, n*—the individual who wears flame, thermal or arc resistant clothing and is responsible for care and maintenance of the clothing.

3.1.4 *garment, n*—an article of clothing used to cover the body.

3.1.5 *fabric, soil, n*—in textiles, a planar structure consisting of yarns or fibers. ~~foreign substances on garments which are not part of the garment construction or materials.~~

3.1.6 *wearer, n*—the individual who wears flame resistant or arc rated clothing.

4. Summary of Guide

4.1 This guide provides recommendations to effectively care for and maintain ~~flame, thermal, and arc resistant~~ flame resistant or arc rated clothing. The guidelines include:

4.1.1 A listing of elements to consider when laundering at home.

4.1.2 Recommendations for removing ~~flame, thermal, and arc resistant~~ flame resistant or arc rated clothing from service.

4.1.3 Recommendations for the repair, modification, and fit of ~~flame, thermal and arc resistant~~ flame resistant or arc rated clothing.

5. Significance and Use

5.1 This guide is intended for use by employees of the end user, such as safety personnel or program administrators, who have chosen to implement a ~~home laundered flame, thermal~~ home-laundered flame resistant or arc resistant clothing program.

5.2 This guide describes the key components involved in the home care and maintenance of ~~flame, thermal, and arc resistant~~ flame resistant or arc rated clothing. The decision to home launder ~~flame, thermal and arc resistant~~ flame resistant or arc rated clothing is part of an overall hazard analysis. It should include the nature of the hazard, the soils, and any chemicals present in the workplace. ~~Requirements~~ Conditions may exist that require work apparel to be cleaned at work or professionally due to the risk of contamination of the home or waste water caused by the wearer's ~~on-the-job~~ on-the-job exposure.

5.3 The guide provides the end user assistance to ~~develop~~ follow laundering methods that will clean the garment and maintain the ~~flame, thermal, and arc resistant~~ flame resistant or arc rated characteristics of the clothing during its useful service life. The guide also provides suggestions for increasing the wear life, appearance, and function of the clothing.

5.4 The guide also provides suggestions as to when ~~flame, thermal, and arc resistant~~ flame resistant or arc rated garments should be removed from service.

5.5 The guide provides direction on proper garment repair, modification, and permanent removal from service.

6. Procedure

6.1 ~~Garment~~ Flame resistant or arc rated garment manufacturers, in consultation with fiber and fabric suppliers, are responsible for providing information on the performance characteristics and maintenance needs of their garments. The ~~end-user~~ end user is responsible for understanding the hazards present in the workplace and selecting appropriate engineering controls and protective equipment and garments to address those hazards and communicating home laundering instructions to the wearer.

6.1.1 If questions remain about care and maintenance of ~~flame, thermal and arc resistant~~ flame resistant or arc rated clothing, contact the garment manufacturer or garment supplier for specific care instructions for the fabrics or garments.

² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.