
Textiles - Code of Practice for Garment Manufacturing



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ARSO Central Secretariat
International House 3rd Floor
P. O. Box 57363 — 00200 City Square
NAIROBI, KENYA

Tel. +254-20-2224561, +254-20-3311641, +254-20-3311608

E-mail: arso@arso-oran.org

Web: www.arso-oran.org

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ARSO Central Secretariat
International House 3rd Floor
P.O. Box 57363 — 00200 City Square
NAIROBI, KENYA

Tel: +254-20-2224561, +254-20-3311641, +254-20-3311608

E-mail: arso@arso-oran.org
Web: www.arso-oran.org

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Textiles- Code of Practice for Garment Manufacturing

1 Scope

This Committee Draft African Standard specifies the general principles for production in the garment industry. It sets out the necessary guidelines for garment manufacturing industries.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 4915, *Textiles — Stitch types — Classification and terminology*

ISO 4916, *Textiles — Seam types — Classification and terminology*

ISO 3758, *Textiles — Care labelling code using symbols*

ISO 8559-1, *Size designation of clothes — Part 1: Anthropometric definitions for body measurement*

ISO 8559-2, *Size designation of clothes — Part 2: Primary and secondary dimension indicators*

ARS 1551, *Terms and definitions for textiles and textile merchandise*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ARS 1551 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1 Design

aesthetic or functional characteristics of textile products, including patterns, colors, textures, and structural features.

3.2 quality

the totality of features and characteristics of a finished garment that bear on its ability to satisfy stated or implied needs.

3.3 pattern making

It is a process that connects design to the garment production process by producing templates for all components for completing a specific garment.

3.4 grading

It is a technique of scaling (increasing or decreasing) a base pattern to reproduce other sizes.

3.5 spreading

This is a preparatory operation for cutting and consists of laying plies of fabric one on top of the other in a predetermined direction and relationship between the right and wrong sides of the fabric .

3.6 Fabric

manufactured assembly of fibres or yarns that has substantial surface area in relation to its thickness, and sufficient cohesion to give the assembly useful mechanical strength.

4 Building and Facilities

4.1 Location

- 4.1.1** Establishments should be located in areas which are free from objectionable odour, from sources such as refuse dumps, public places of convenience or other contaminants and are not subject to flooding.
- 4.1.2** Septic tanks or other sewage disposal installation should be properly sealed and well ventilated
- 4.1.3** Free potable water should be readily accessible on the premises.

4.2 Land Use

Appropriate permits for land use and facilities construction required by local & national regulations should be obtained if applicable.

4.3 Construction

- 4.3.1** Building should be of sound construction, kept in good condition and comply with national building regulations.
- 4.3.2** working space should allow for satisfactory performance of all operations.
- 4.3.3** The facility should comply with the fire, health and safety requirements.

4.4 Ventilation

Building should have adequate ventilation to maintain proper air quality in line with national regulations.

4.5 Lighting

- 4.5.1** Establishment should have access to adequate natural and/or artificial light in compliance with health and safety requirements.
- 4.5.2** Where appropriate, the lighting should not alter colours.
- 4.5.3** Light bulbs and fixtures suspended should be of a safety type and protected.
- 4.5.4** Emergency lighting that shows where the emergency exits can be in the event of a power shortage could be installed.

4.5.5 Emergency exits should be visible and marked appropriately.

4.6 Waste Management and Disposal

4.6.1 All chemical, flammable, toxic or harmful waste material and sharp objects should be disposed in accordance with local hazardous waste management regulations.

4.6.2 Waste should be deposited in sealed containers in demarcated areas and must be emptied at the end of each day and kept clean.

4.6.3 Wastewater should be released in allocated drainage systems.

4.6.4 Wastewater drains should be regularly cleaned and maintained in accordance wastewater management regulations.

4.7 Records Keeping

4.7.1 Records for the materials and components including production records should be stored in a safe and dry place.

4.7.2 Materials and components should be inspected, recorded, and stored in designated areas.

4.7.3 Design, design process, garment specification sheets, patterns and other items used for production should be well documented and stored adequately.

4.7.4 Pattern pieces and measurements should be clearly labelled.

4.7.5 Official records should be kept for all employees.

4.8 Tools, Materials and Equipment

4.8.1 Tools should be stored in a manner that it is easily accessible.

4.8.2 Equipment and tools should be corrosion free.

4.8.3 Tools and equipment should be clean, maintained regularly and properly calibrated.

4.8.4 A manual on the use of tools and equipment should be available and well documented

5 Health and Safety

5.1 First Aid

5.1.1 First aid kits should be readily and easily accessible.

5.1.2 Keep a record of work-related incidents and accidents.

5.1.3 Regularly provide workers with first aid training.

5.1.4 employees should identify all potential hazards and provide appropriate protective gear to safeguard the hazards in accordance with OHSA or ISO 45001

5.2 Changing Facilities and Toilets

Adequate, suitable, and conveniently located changing facilities, toilets and showers should be provided.

5.3 Fire Safety

5.3.1 Building should comply with the National Fire Safety Regulations

5.3.2 Provide relevant fire safety training to the workers.

5.3.3 Conduct firefighting drills and document the reaction.

5.3.4 Have clearly marked evacuation assembly point.

5.4 Emergency Exits

5.4.1 Have clearly marked exits with doors opening outwards.

5.4.2 Clearly mark all exits with signs written in language(s) that all workers understand.

5.4.3 Aisles, exits and stairs should be kept clear from any obstructions that could prevent orderly evacuation.

5.4.4 Emergency assembly point should be clearly marked and have staff trained to access the point without limitation.

5.4.5 Ensure that emergency exits are accessible to all workers, including those with disabilities or mobility challenges.

6 Garment Manufacturing Process

6.1 Design

Designs for marker making should be provided and displayed for efficient manufacturing.

6.2 Measurements

Body dimensions for pattern making should be taken in accordance with ISO 8559-1.

6.3 Pattern Making

6.3.1 A production sample should be drafted taking into consideration the garment specification sheet or technical package.

6.3.2 Pattern pieces should be marked and labelled clearly.

6.4 Sample making

Samples should be made-up for fit and size evaluation and make necessary pattern adjustments for production.

6.5 Production Pattern

6.5.1 methods for making the pattern should be appropriate.

6.5.2 The production pattern should include all the essential pattern markings such as grainlines, notches, balance points, center front and center back information, design name, design code, size and number of pieces to be cut.

6.5.3 Should be drafted with additional ease; and seam allowance of at least 7mm or as specified in ISO 4916 for industrial production.

6.5.4 Should have a clear and detailed technical package/specification sheet.

6.6 Grading

Grading should maintain the shape, fit, balance and scale of style details based on the target market and size range.

6.7 Spreading fabric

6.7.1 Plies should be aligned in both length and width direction.

6.7.2 Fabric defects/flaws should be eliminated and any faults identified on the incoming fabrics should be tagged and avoided.

6.7.3 Ply tension should be uniform to avoid distortion.

6.7.4 Depending on the type of fabric and design to be cut the warp and weft yarn should be taken into consideration when placing the pattern.

6.8 Laying Out

6.8.1 When required, match the motifs and design of patterns in the fabric

6.8.2 Larger patterns must be laid first with smaller patterns placed in between economically to maximize fabric usage.

6.8.3 Pattern should be placed according to the design of the fabric.

6.9 Cutting fabric

6.9.1 Fabrics should be relaxed prior to cutting to ensure that shrinkage is minimized in the garment.

6.9.2 Cutting instruments should be straight and well sharpened.

6.9.3 The cutters should ensure efficiency and avoid wastage.

6.10 Sorting/Bundling

All the garments' components should be:

6.10.1 sorted out as per the color and size using code numbers.

6.10.2 stacked and tied up together based on the sorting criterion.

6.11 Assembling / Sewing

6.11.1 The various parts should be prepared according to the technical package/ garment specification sheet.

6.11.2 The needle tensions must be properly set according to the fabric type.

6.11.3 The sewing should follow the operational breakdown.

6.11.4 Fabric should be properly handled to ensure a straight stitching.

6.11.5 The number of stitches per inch should be followed according to the technical package or as specified in ISO 4915

6.11.6 Seam type and seam allowances should be followed according to the technical package or as specified in ISO 4916

6.12 Sewing Quality Inspection

Inspection should be done visually and at random from the point at which the garment is fully or 80%-90% finished to verify their general conformity and appearance as per agreement between purchaser and manufacturer.

6.13. Pre-Production Inspection

6.13.1 Pre-production inspection should be done before production starts.

6.13.2 Pre-production inspection should be done to cross-check for final verification of bulk fabric and trim materials, styling, cutting way, manufacturing details and workmanship of the garment or pre-production sample as per customer requirement.

6.14 First Inline Inspection

6.14.1 Inspection should be done at the beginning of first production.

6.14.2 Inspection should cover mainly the style detail, general appearance, workmanship, measurements, fabric quality, trims and components, lot colour, embellishments and washing quality.

6.14.3 Inspection should be done to identify and distinguish possible discrepancies or variations and to do necessary corrections before the bulk production.

6.15 Second-Inline Production Inspection

Inspection should be done to ensure initial discrepancies have been corrected and rectified.

6.16 Final Random Inspection

6.16.1 Inspection should be carried out when the production of the total quantity of an order is completed.

6.16.2 Sample lot should be selected from the order and a percentage of the garment should be inspected.

6.16.3 The sampling percentage should be as specified in ISO 2859-1.

6.17 Pressing / Finishing

6.17.1 All undesirable manufacturing creases and wrinkles should be removed.

6.17.2 Pleats should be neatly pressed.

6.17.3 Collars and cuffs should be neatly pressed.

6.17.4 Final pressing should be done to impart a flat appearance to the finished garments.

7 Packaging

7.1 The packaging should be agreed between purchaser and manufacturer and of suitable material that offers protection during transportation and storage.

7.2 The labelling of the package should comply with the requirements of clause 8.

8 Labelling/Marking

8.1 Care-label

Garments should have a care-label that is permanently secured. All care labels and their markings should be such that they will normally outlast the garments and should be of height at least 3 cm.

8.2 Garment labelling

The label shall be securely attached to the garment and so positioned as to be easily accessible and readable and shall provide the following information printed in legible and indelible block letters:

- a) fabric composition (%);
- b) sizing designation in accordance with ISO 8559-2 (visible to the consumer);
- c) care instructions in accordance with ISO 3758; and
- d) manufacturers details and country of origin.

8.3 Package

Garments should be individually packed in suitable packaging of relevant size and shape.

Garments of the same type, style, materials, size, make and colour should then be packed in acceptable bulk containers for transportation and prevent contamination. Each package and bulk container should be clearly marked with the following information in legible and indelible marking:

- a) item description;
- b) size designation; and
- c) manufacturers details and country of origin