Textile Quality Checklist

Before, during and after production, with AQL table under ISO 2859-1 (general inspection level II)

ITEM / STYLE NO.	MANUFACTURER / FACTORY
ORDER NUMBER	LOT SIZE (PIECES)
INSPECTED BY	DATE

1 Before production

Most quality problems are already built in before the first piece is cut. Settle these points in writing.

- [ ] **Sample (golden sample) approved**
  Approval and deviations recorded in writing, ideally with photos
- [ ] **Technical drawing and measurement chart**
  Measurements with tolerances, seam type, stitch density, workmanship notes
- [ ] **Material defined**
  Fabric type, composition, weight per square metre, test reports where needed
- [ ] **First fabric delivery checked against the sample**
- [ ] **Trims and labels**
  Zips, buttons, thread, care and size labels
- [ ] **Mandatory information for the target market clarified**
- [ ] **Defect classes, AQL values and inspection level agreed**
  in the order or supply contract (see page 3)

2 During production

Check as soon as the first series pieces come off the line. An error can still be corrected now.

- [ ] **Seams**
  Stitch density, even course, seam strength, bar tacks at stress points, open or skipped stitches
- [ ] **Measurements**
  Spot measurement across several sizes against the measurement chart, including tolerances
- [ ] **Colour**
  Comparison with the sample under the same light, deviations between batches and within a piece
- [ ] **Fit and appearance**
  Does the fabric wrinkle, does a piece twist, are prints or embroidery in the right place?

3 Final inspection

When the goods are almost fully produced and most are packed. Sample according to AQL, drawn at random from several cartons.

CHECK POINT	OK	DEVIATION	REMARKS
Quantity and packing units Pieces per size and colour, carton marking, carton dimensions and weight	☐	☐	
Appearance and workmanship Stains, holes, loose threads, sewing defects, print or embroidery defects	☐	☐	
Measurements Spot measurement against the measurement chart	☐	☐	
Labels Size, care and origin labels, composition, barcodes, placement	☐	☐	
Packaging Polybags, individual packaging, labelling, closure, carton quality	☐	☐	
Functional tests Zips, buttons, snap fasteners, colour fastness to rubbing where needed	☐	☐	

Defect classes

Define the classes in writing before production.

Critical
Endangers people or breaches regulations, for example protruding sharp needles.

Major
Makes the product unusable or would be noticed by the customer, for example an open seam or a wrong measurement.

Minor
Small flaw that hardly affects use or appearance.

Final inspection result

DEFECT CLASS	AQL	SAMPLE	FOUND	AC	RE	ACCEPTED	REJECTED
Critical	0					☐	☐
Major						☐	☐
Minor						☐	☐

NOTES

4 AQL sampling

AQL (Acceptable Quality Limit) is the highest defect rate still considered acceptable for a delivery. ISO 2859-1 describes sampling plans for it.

1. Establish the lot size, that is, the number of pieces in the delivery being inspected.
2. Choose the inspection level. General level II is usual. Level I means less effort, level III more.
3. Read the code letter, and with it the sample size, from the lot size.
4. Draw that many pieces at random from several cartons and inspect them.
5. Compare the defects found per class with the acceptance number. At or below Ac the lot is accepted, from Re it is rejected.

> Usual in the industry for apparel: no critical defects (value 0), AQL 2.5 for major, AQL 4.0 for minor. Agree the values before ordering.

Single sampling plans, normal inspection, general inspection level II

Lot size	Code letter	Sample size	AQL 2.5 (Ac / Re)	AQL 4.0 (Ac / Re)
91 to 150	F	20	1 / 2	2 / 3
151 to 280	G	32	2 / 3	3 / 4
281 to 500	H	50	3 / 4	5 / 6
501 to 1,200	J	80	5 / 6	7 / 8
1,201 to 3,200	K	125	7 / 8	10 / 11
3,201 to 10,000	L	200	10 / 11	14 / 15
10,001 to 35,000	M	315	14 / 15	21 / 22

Ac = highest permitted number of defects. Re = number of defects at which the lot is rejected.

Example: for 5,000 hoodies the code letter is L, so 200 pieces. At AQL 2.5 the inspection may find up to 10 pieces with major defects. At the 11th defective piece the lot is rejected.

Lot sizes below 91 and above 35,000 pieces are deliberately left out, because the sources differ there. For these lots, use the original standard. If the sample size is as large as the lot, the entire lot is inspected. The table values are for orientation, and the standard is authoritative.

AGREED WITH THE MANUFACTURER

Inspection level	AQL major	AQL minor	Critical permitted

5 Settle before ordering

A checklist only helps if it has been agreed with the factory before production.

- [ ] **Write defect classes, AQL values and inspection level into the order or supply contract**
- [ ] **Include the golden sample and the measurement chart as an annex**
- [ ] **Plan at least one inspection during production and a final inspection**
- [ ] **Appoint an inspector independent of the factory and require an inspection report with photos**
- [ ] **If the lot is rejected, clarify in advance who reworks, who pays and how re-inspection is carried out**

NOTES

Sources

- ISO 2859-1: Sampling procedures for inspection by attributes, Part 1: Sampling schemes indexed by acceptance quality limit (AQL)
- Apparel Search: 2.5 AQL Chart and 4.0 AQL Chart for the Fashion Industry (apparelsearch.com)
- QIMA: Acceptable Quality Limit (AQL), qima.com, as a cross-check (refers to ANSI/ASQ Z1.4)

Explained in detail in the guide: **we-source.eu/en/guides/textile-quality-checklist-aql/**

we-source is the sourcing service of Detert & Sander Trading GbR, Hamburg. We go into the factory for you and compare running production with your approved sample: we-source.eu/en/quality-control/