LANTAOWORK

www.lantaowork.com

HEALTHCARE UNIFORMS · PROCUREMENT TECH SPEC

Medical Uniform Procurement Tech Spec

Fabric, antimicrobial, fluid-barrier and wash-durability requirements in one spec your RFQ can be measured against.

Version 1.0 Last updated: September 11, 2026

DISCLAIMER

This resource is practical procurement guidance written from a China-side workwear factory's perspective. It is not medical, legal or regulatory advice. Test methods, acceptance limits and regulatory pathways vary by market and intended use; confirm every requirement against the current standard, an accredited lab report and qualified regulatory counsel before you commit funds.

Healthcare uniform resource | Document ID: SPEC-MED-TECH-001

Purpose

This tech spec template ensures your bid package includes all technical, antimicrobial, fluid barrier, colorfastness, and wash durability requirements for medical uniforms. Complete this document and attach it to your RFQ to receive comparable, spec-aligned quotes from potential suppliers.

Section 1: Fabric Specifications

PARAMETER	YOUR REQUIREMENT	NOTES
Fabric Composition	☐ 65/35 Poly-Cotton ☐ Poly-Rayon-Spandex (4-way stretch) ☐ 80/20 Poly-Viscose ☐ Other: _____	Specify blend ratio. Different compositions have different antimicrobial compatibility and wash durability.
GSM Range	☐ 145-165 (lightweight scrubs) ☐ 160-195 (midweight) ☐ 200-220 (structured uniforms/coats) ☐ Other: _____	GSM affects drape, durability, and comfort. Surgical scrubs typically 145-165 GSM; lab coats 180-220 GSM.
Color	Pantone Reference: _____ Color Name: _____ ☐ Single color, all garments ☐ Color-coded by department (specify below)	Provide Pantone TCX (textile) reference. Request ΔE ≤1.0 tolerance specification.
Finish	☐ Antimicrobial (specify test method) ☐ Fluid barrier (specify PB70 level) ☐ Moisture wicking ☐ Durable press ☐ Anti-static	Each finish requires a specific test method. See Section 2.

Section 2: Test Method Requirements (CRITICAL)

Do not accept "antimicrobial treated" or "fluid resistant" without a specific test method number. The test method IS the verifiable requirement.

PERFORMANCE ATTRIBUTE	REQUIRED TEST METHOD	ACCEPTANCE CRITERIA	DOCUMENTATION REQUIRED
Antibacterial Finish Efficacy	AATCC TM100 (quantitative % reduction vs. control, 24h contact)	≥ 99% reduction for S. aureus and K. pneumoniae	Per-batch third-party lab report from ISO 17025-accredited laboratory
Antibacterial Activity (International)	ISO 20743 (absorption/printing/transfer methods)	As specified by institution protocol	Per-batch third-party lab report
Industrial Wash Durability	ISO 15797 (industrial laundering simulation)	100+ cycles at 60-75°C; dimensional stability within ±3%; colorfastness ≥Grade 4	After-laundering test report with cycle count
Chlorine Bleach Fastness	ISO 105-C06 or AATCC 61 (accelerated laundering with chlorine)	≥Grade 4 (AATCC Gray Scale)	Per-batch test report

PERFORMANCE ATTRIBUTE	REQUIRED TEST METHOD	ACCEPTANCE CRITERIA	DOCUMENTATION REQUIRED
Fluid Barrier — Impact Penetration	AATCC 42 (water impact penetration)	≤ 4.5g penetration (AAMI PB70 Level 2)	Per-batch test report
Fluid Barrier — Hydrostatic Pressure	AATCC 127 (hydrostatic pressure)	≥ 20 cm H_2O (AAMI PB70 Level 2)	Per-batch test report
Color Consistency	Spectrophotometer ΔE (CIE Lab)	ΔE ≤1.0 vs. approved seal sample	Per-batch spectrophotometer reading
Dimensional Stability	ISO 5077 / AATCC 135 (after 5 home launderings)	≤ ±3% in warp and weft directions	Per-fabric test report
Tensile Strength	ASTM D5034 (grab test)	≥ 200N (warp), ≥ 150N (weft)	Per-fabric test report
Seam Strength	ISO 13935-1 (seam slippage)	≥ 120N	Per-garment-style test report

Section 3: Compliance Certifications

- □ OEKO-TEX Standard 100 Class I or II — Current certificate. Class I required for direct skin contact (scrubs, underscrubs).
- □ REACH Compliance — Documentation for all chemical substances in fabric, dyes, and finishes.
- □ FDA Registration Pathway — If uniforms are marketed with antimicrobial claims, confirm FDA registration status.
- □ CE MDR Alignment — For EU-bound medical textiles, confirm compliance pathway.
- □ GRS (Global Recycled Standard) — If using recycled polyester content, current GRS certificate required.
- □ ISO 9001:2015 — Current certificate. Scope must include medical apparel manufacturing.

Section 4: Garment Construction & Sizing

PARAMETER	SPECIFICATION
Size Range	XS – 5XL (specify if extended sizes needed)
Size Tolerance	≤ ±1.5 cm per measurement point
Size Distribution	Provide batch-level size distribution chart with each shipment
Seal Sample	Pre-production golden sample approved in writing before mass production. Sample archived as legal color and quality standard for all reorders.
Stitch Type	Safety stitch (4-thread overlock) for all load-bearing seams. Coverstitch for hems.
Thread	Polyester core-spun, color-matched to fabric. 40/2 or 50/2 weight.
Pockets	Specify number, placement, reinforcement. Chest pocket with pen slot standard on lab coats.

Section 5: Quality & Inspection Requirements

- □ AQL 2.5 Level II — Random sampling standard for final inspection. AQL 4.0 for minor defects.
- □ 3 Inspection Gates — Incoming fabric, in-line at 30% completion, pre-shipment final (PSI).
- □ Inline QC Photos — Time-stamped digital photos from 30% inspection gate sent to buyer.
- □ Per-Shipment Documentation Package — Batch test reports (AATCC TM100, ISO 20743, ISO 15797, AAMI PB70), QC photos, seal sample reference, spectrophotometer readings.

Pro Tip: Attach this completed tech spec to your RFQ. Suppliers who can't address every test method requirement with a verifiable lab report will self-eliminate — saving you evaluation time.

lantaowork.com

LANTAOWORK TECH SPEC

Spec the test method, not the adjective.

Send the intended use and facility profile — a spec-aligned quote and a batch-level documentation package are returned.

CONTACT US

Website	www.lantaowork.com
Email	info@lantaowork.com
Office	Hangang Sci & Tech Industrial Park, Jintan Road, Dongxihu District, Wuhan, Hubei, China

Request a free, transparent quote: https://www.lantaowork.com/contact-us/