

Fabrics Testing Requirements for Garments

Fabrics Lab Testing

Fabrics need to pass through some testing for its quality, strength because by cut and sewing fabrics become garments, fabrics lab testing is very much important. Buyer have requirement to pass ***fabrics lab test report*** before allowing fabrics for garments manufacturing. Here you can find the list fabrics testing requirement, standard testing method and buyer required performance of every testing criterion, this would help you to know about all in house fabrics testing and its standard testing method.

Where Fabrics Lab Test Need?

- Fabrics after dyeing, before delivery to garments
- Fabrics before cutting, inspection stage of in garments manufacturing

List of Lab Testing Need to be Done of Fabrics

1. Dimensional stability/Shrinkage to Laundering/washing
2. Skew Test
3. Distortion Test
4. Dimensional stability to Dry Cleaning
5. Appearance Rating
6. Color fastness to Laundering
7. Color fastness to Crocking
8. Color fastness to Perspiration
9. Color fastness to Water
10. Color fastness to Light
11. Tensile strength
12. Seam slippage
13. Seam strength
14. Tear strength
15. Bursting strength
16. Pilling resistance
17. Fiber content
18. Fabric weight (g/m²)
19. Formaldehyde content

20. Lead content (scrapable surfaces only; children only)

21. Azoic Dyes

Fabrics Lab Testing Requirements and Standard Test Method

SL No	Test Description	Standard Test Method	Performance Requirements
1	Dimensional stability/Shrinkage to Laundering/washing	AATCC 135/150	Woven fabrics: +/- 3% max. Knitted fabrics: +/- 5% max.
2	Skew Test	ASTM D3882	No skew
3	Distortion Test	AATCC 179	Tolerance +/- 3%
4	Dimensional stability to Dry Cleaning	AATCC 158	Woven fabrics: +/- 3% max. Knitted fabrics: +/- 3% max.
5	Appearance Rating	Visual/AATCC 179 Method 2	Satisfactory, including no shape distortion, no cross staining and skewing 3% max for woven and 5% max for knits.
6	Color fastness to Laundering	AATCC 61	Color change: 4, Color staining: 3, Self-staining: 4.5
7	Color fastness to Crocking	AATCC 8	Dry: 4, Wet: 3
8	Color fastness to Perspiration	AATCC 15	Color change: 4, Color staining: 3
9	Color fastness to Water	AATCC 107	Color change: 4, Color staining: 3
10	Color fastness to Light	AATCC 16	20 hour test: 3.5
11	Tensile strength	ASTM D5034	Blouse: 25 lbs Shirt/dress/skirt/pyjamas/lining: 30 lbs Outerwear: 37 lbs Trousers/shorts/overall/pocketing: 50 lbs
12	Seam slippage	ASTM D434	Blouse/shirt/dress/skirt: 15 lbs Pyjamas/lining: 18 lbs Outerwear/pocketing: 22 lbs Trousers/shorts/overall: 25 lbs
13	Seam strength	ASTM D1683	Blouse/shirt/dress/skirt: 22 lbs Pyjamas/lining: 25 lbs Outerwear/pocketing: 30 lbs Trousers/shorts/overall: 37 lbs

14	Tear strength	ASTM 1424	Blouse: 1.5 lbs Pyjamas/lining: 1.8 lbs Shirt/dress/skirt/outerwear: 2.0 lbs Trousers/shorts/overall/pocketing: 2.5 lbs
15	Bursting strength	ASTM D3786	Fabric: 40 lbs /sq. inch, Seam: 35 lbs /sq. inch,
16	Pilling resistance	ASTM 3512 – 30 minutes	3.5
17	Fiber content	AATCC 20/20A	+/- 3% tolerance for blends; No tolerance for single fiber
18	Fabric weight (g/m2)	ASTM D3776	+/- 5% of specification
19	Formaldehyde content	JIS L 1041	Garments with contact to skin < 75 ppm Other garments < 300 ppm
20	Lead content (scrapable surfaces only; children only)	16 CFR 1500.3	< 600 ppm
21	Azoic Dyes		Zero tolerance

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