

CV NORMS FOR VARIOUS COTTON AND COTTON BLENDED FABRICS

This document list out the essential plant and machinery requirement of various cotton/cotton blended fabrics. This documents also list out the essential test equipment requirement of various cotton/cotton blended fabrics.

Essential Plant & machinery Requirement for spinning:-

1. Blending Machine (If blending carried out at Blow Room stage)
2. Blow Room Line
3. Carding Machines
4. Draw Frames
5. Ribbon Lappers + Combers (Wherever Applicable)
6. Fly Frames
7. Ring Frames
8. Autoconer or equivalent
9. Parallel Winding
10. Two For One Twisters (TFO)
11. Steam Chamber/ Autoclave

Note:-

1. In addition to above, controlled atmosphere of production shop for Humidity & Temperature is an essential requirement

Essential Plant & Machinery Requirement for Weaving:-

1. High Speed Warping machine.
2. Sizing Machine (Must necessary for fabric produced with single ply warp yarn and may not be mandatory for the same with double/multi fold yarns except for yarn having count finer than 2/40^s, or being woven on very high speed Shuttle less looms i.e. above 300 picks per minute- which is required to be verified by CV team).
3. Shuttle less looms with Dobby attachment to weave firms name or trademark along selvages.

Note:-

1. Controlled atmosphere of Production Shop for humidity & temperatures is an essential requirement.

Essential Plant and Machinery Requirement for Processing:-

1. Grey Fabric Inspection Machine
2. Singeing
3. Desizing machine/unit (If sizing has been carried out during weaving operation)
4. Mercerisation
 - a) Chain Type or Slip type mercerization
5. Scouring and Bleaching
 - a) Auto/semi Auto Jiggers/Jumbo Jiggers
OR
 - b) Open width scouring and Bleaching Plant
OR
 - c) Continuous scouring and bleaching Machine (CBR)
6. Dyeing

FOR POLYESTER COMPONENT

 - a) High Temperature High Pressure (HTHP) Jet Dyeing
OR
 - b) Pad Dry and Thermosol on Loop Agers
OR
 - c) Pad Dry and thermosol on Hotflue

FOR COTTON COMPONENT

 - a) Auto/Semi Auto Jiggers/Jumbo Jiggers
OR
 - b) Pad Dry and Developers (CDR)

7. Washing
 - a) Auto/Semi Auto Jiggers/Jumbo Jiggers
OR
 - b) Continuous Washers with Dryers
8. Printing (Where ever applicable)
 - a) Engraving Department/Exposure Plant
 - b) Rotary Printing Machine
 - c) Loop Ager/Ageing Machine
 - d) Oxidation and washing
 } OR FLASH AGER MACHINE
9. Finishing
 - a) 4 Chamber (Min) Steneter with padding mangle
 - b) Sanforising/Decatising
10. Special Treatment

Water repellency treatment/ Water Proofing/Rot Proofing Plant

 - a) Three Bowl padding Mangle
 - b) SS Drying Range
 - c) Curing/Polymerizer
 - d) Stenter
11. Perching Machine
12. Auto Folding Machine
13. Rolling Machine

Essential Test Equipments:-

1. Measuring Scale/Tape for length/width measurement
2. Thickness Gauge for thickness
3. Pick Glass/Counter for End /Picks
4. Weighing Balance for GSM and miscellaneous work
5. Template for shrinkage Test for relaxation shrinkage
6. Twist Tester for turn per dm
7. Tensile Strength Tester for Breaking Load
8. Tear Strength Tester for Tear Strength
9. Air Permeability tester for Air Porosity
10. Pressure Head Tester for waterproofness
11. BWR Tester for water repellency
12. Spray Rating Tester for water repellancy
13. Microscope for fibre identification
14. Digital PH meter for PH value of aqueous extract
15. Scouring Loss Test Apparatus (Soxhlet Apparatus, Oven & Glassware) for scouring loss/various chemical tests
16. Crock meter for dye fastness to rubbing
17. Perspirometer for dye fastness to perspiration
18. Laundrometer for dye fastness to washing
19. Blend Composition test apparatus (Chemical Balance, Oven & Glassware) for blend composition
20. Nature of Dye Testing Facility for dye identification
21. Spectrophotometer (wherever applicable) for LCH and Delta values.
22. Yarn Evenness Tester
23. Light Fastness Tester*
24. Pilling Tester
25. Crease Recovery Tester
26. Conditioning Chamber for humidity and temperture

Note:-

1. * If the firm does not have light fastness tester , the firm should have arrangement with NABL accredited lab for Dye fastness to Light for which a letter from NABL accredited lab should be issued to the firm that they are undertaking testing of samples from the firm .
2. The above list of test equipment is illustrative in nature which may or may not be relevant for certain type of fabric. Therefore at the time of capacity verification, the requirement of test equipment may be verified in accordance with test parameters in the specification and test equipment shall have required range to test the required parameters.
3. The firm should have valid composite mill certificate for all the three processes viz. Spinning, Weaving and Processing issued by Textile Commissioner, Mumbai. In case of expiry of certificate, copy of application for renewal should be provided.