

Item	Specification	Remarks
Set of Digital Print Fabric to be used in Coat Combat Digital Camouflage Print Nylon 6'6. Size - Small	Set of Digital Print Fabric to be used in Coat Combat Digital Camouflage Print Nylon 6'6. Size - Small Scale of Digital Print Fabric for Small Size-1.Fabric Nylon 6,6 Sndwch Poly.Flec.Dig.Prnt.300GSM wd.150cm(min)-1.65Mtr. 2.Nylon 6,6 Digital Camouflage Print fabric TPU Membrn lami.130 GSM width 150cm. (min)-1.30 Meter.& 3.Nylon6,6 Digtl. Camflge Prnt.Hi.Abrsn.Restn.250GSM Fab.wd.150cm(min)-.0556 Mtr. Fabric Details & Specification as per Annexure - A1.	For Fabric Nylon 6'6 Sandwich with Polyester Fleece Digital Camouflage Print 300GSM width 150cm. (min) applicable CV norms is appendix 01 (page 1 to 4).
Set of Digital Print Fabric to be used in Coat Combat Digital Camouflage Print Nylon 6'6. Size - Medium	Set of Digital Print Fabric to be used in Coat Combat Digital Camouflage Print Nylon 6'6. Size - Medium Scale of Digital Print Fabric for Small Size-1.Fabric Nylon 6,6 Sndwch Poly.Flec.Dig.Prnt.300GSM wd.150cm(min)-1.75Mtr. 2.Nylon 6,6 Digital Camouflage Print fabric TPU Membrn lami. 130 GSM width 150cm. (min)-1.40 Meter.& 3.Nylon6,6 Digtl.Camflge Prnt.Hi.Abrsn.Restn.250GSM Fab.wd.150cm(min)-.0556 Mtr. Fabric Details & Specification as per Annexure - A2	For following 02 fabrics (i) Nylon 6'6 Digital Camouflage Print fabric with TPU membrane laminated 130 GSM width 150cm. (min) (ii) Nylon 6'6 Digital Camouflage Print High Abrasion Resistance 250 GSM Fabric width 150cm (min.) applicable CV norms are appendix-02 (page 1 to 2).
Set of Digital Print Fabric to be used in Coat Combat [Digital Camouflage Print Nylon 6'6. Size - Large	Set of Digital Print Fabric to be used in Coat Combat [Digital Camouflage Print Nylon 6'6. Size - Large Scale of Digital Print Fabric for Large Size- Fabric Nylon 6,6 Sndwch Poly.Flec.Dig.Prnt.300GSM wd.150cm(min)-1.85Mtr. 2. Nylon 6,6 Digital Camouflage Print fabric TPU Membrn lami. 130 GSM width 150cm. (min)-1.50 Meter.& 3.Nylon6,6 Digtl.Camflge Prnt.Hi.Abrsn.Restn.250GSM Fab.wd.150cm(min)-.0556 Mtr. Fabric Details & Specification as per Annexure - A3.	Note - If firm does not comply the applicable CV norms of any of the above mentioned fabrics firm will not be recommended for registration for subject set of fabrics.
Set of Digital Print Fabric to be used in Coat Combat [Digital Camouflage Print Nylon 6'6. Size -Extra Large	Set of Digital Print Fabric to be used in Coat Combat [Digital Camouflage Print Nylon 6'6. Size - Extra Large Scale of Dig.Prnt.Fab.for Extra Large Size. 1- Fabric Nylon 6,6 Sndwch Poly.Flec.Dig.Prnt.300GSM wd.150cm(min)-2.00Mtr. 2.Nylon 6,6 Digital Camouflage Print fabric TPU Membrn lami. 130 GSM width 150cm.(min)-1.60 Meter & 3.Nylon6,6 Digtl.Camflge Prnt.Hi.Abrsn.Restn.250GSM Fab.wd.150cm(min)-.0556 Mtr. Fabric Details & Specification as per Annexure - A4.	
Set of Digital Print Fabric to be used in Coat Combat [Digital Camouflage Print Nylon 6'6. Size -Extra Extra Large	Set of Digital Print Fabric to be used in Coat Combat [Digital Camouflage Print Nylon 6'6. Size - Extra Extra Large Scale of Digital Print Fabric for EEL Size. 1- Fabric Nylon 6,6 Sndwch Poly.Flec.Dig.Prnt.300GSM wd.150cm(min)-2.10Mtr. 2.Nylon 6,6 Digital Camouflage Print fabric TPU Membrn lami. 130 GSM width 150cm.(min)-1.70 Meter & 3. Nylon6,6 Digtl.Cam flge Prnt.Hi.Abrsn.Restn.250GSM Fab.wd.150cm(min)-.0556 Mtr. Fabric Details & Specification as per Annexure - A5.	

CV Norms of Fabric Nylon 6,6 Sandwich with Polyester fleece digital camouflage print 300 GSM width 150 cm (min.)

Item Code	Item	Specification	Applicable CV norms
2025002235	Fabric Nylon 6,6 Sandwich with Polyester Fleece Digital Camouflage Print 300GSM width 150cm. (min)	Fabric Nylon 6,6 Sandwich with Polyester Fleece Digital Camouflage Print 300GSM width 150cm. (min). As per Provisional Specification No. PROV/IND/TC/4983 with Amendment No.1 & Appendix 'A1' of Proy Specification No. PROV/IND/TC/4987 with Amendment No.1	(i)CV Norms for "COATED AND LAMINATED FABRICS VARIOUS " (Annexure- E) issued by TCLHQ, Kanpur vide letter No. TCLHQ/QA/Revised CV Norms/2023-24 Dt. 28.11.2023.  & (ii) In case, the firm is not having all the essential manufacturing & testing facilities for fleece fabric as per CV Norms for "Polyester Fleece (various : size & colour)" (Appendix- A0002)} , The firm must have notarized legal tie up with the firm(s) who must possess all the essential manufacturing & testing facilities {as per CV Norms for "Polyester Fleece (various : size & colour)" (Appendix- A0002)}

Encl.- As above

## CV NORMS FOR COATED AND LAMINATED FABRICS VARIOUS

This documents list out the essential plant and machinery requirement of coated and laminated fabrics various. This documents also list out the essential test equipment requirement of coated and laminated fabrics various.

**Scope of Norms is applicable to all types of coated and laminated fabrics on any substrate**

Essential Plant and Machinery Requirement:-

Preparatory and Weaving Process:-

1. Winding machine
2. Beam Warping Machine
3. Shuttle less looms capable of weaving 100% synthetic fabrics

Processing Machines: - (Wherever applicable)

1. HTHP Dyeing Machine  
OR  
High Temperature High Pressure (HTHP) Jet Dyeing or any advanced machine.  
OR  
Pad Dry and Thermosol on Loop Agers  
OR  
Pad Dry and thermosol on Hotflue or any advanced machine.
2. Printing:- (Wherever applicable)
 

a) Engraving Department/Exposure Plant	}	OR FLASH AGER MACHINE
b) Rotary Printing Machine		
c) Loop Ager/Ageing Machine		
d) Oxidation and washing		
3. Calendaring Machine
4. Stenter

**Coating/Laminating Machine:-**

1. Coating/Laminating Machine: As per requirement.
2. Integrated coating cum laminating machine, wherever applicable
3. Stenter/Curing Machine: As per requirement.

Note:-

1. In case of non-availability of weaving and dyeing/printing set up, firm must have valid legal tie up of 03 years with other firm having weaving and Dyeing/printing set up. Legal agreement documents will be submitted by the firm applying for registration.
2. An undertaking by the firm having legal agreement for the weaving facilities will be submitted in the requisite format to agree that in the case of securing the order against a tender enquiry, firm will submit the documentary evidence in the form of invoices/e-way bills for utilizing the weaving facility with the legal tie up firm.
3. If the firm does not possess any of the essential Plant & Machinery, then it should not be recommended for registration.
4. Firm must possess valid pollution consent/clearance certificate from respective State Pollution Control Board.

**Essential Test Equipments:-**

1. Conditioning Chamber.
2. Weighing Balance.
3. Measuring scale/Measuring tape

4. Tensile Strength tester
5. Thread Counter
6. Laundrometer
7. Perspirometer
8. Crockmeter
9. Light fastness Tester
10. Twist Tester
11. Air Permeability Tester
12. Thickness Tester
13. Material Confirmation test facility
14. Tear Strength Tester
15. pH Meter
16. Spray rating Tester
17. Moisture Vapour Transmission Tester
18. Flex Tester
19. Test facility for resistance to low temperature
20. Test facility for nature of material and coating
21. Hydrostatic Pressure Head Tester
22. Test facility for accelerated ageing
23. Test facility for Blocking

Note:-

1. Outsourcing arrangement with NABL accredited lab is allowed only for the test parameter such as Colour fastness to Light/Moisture Vapour Transmission Tester. In this regard, registering firm shall submit a letter issued from NABL accredited lab to the firm that they are undertaking testing of samples received from the firm and the test parameter is within their scope of accreditation. If the firm does not possess any of the essential test equipments as per requirement of specification except the parameters for which outsourcing from NABL accredited lab has been permitted, then it should not be recommended for registration.
2. Controlled Atmosphere of Laboratory for humidity & temperatures is an essential requirement.
3. 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 registration process, the requirement of test equipment in accordance with test parameters in the specification and the test equipment shall have required range to test the required parameters, to be checked from the firm's submitted documents.
4. Firms to give the declaration for supplying the materials with the same legal tie up firm (Wherever legal tie-up has been permitted) having validity of legal tie up for minimum 03 years.
5. At the time of supply of material by the firm having secured a contract, firm should forward the necessary documents like e-way bill, commercial invoice issued by legal tie up firm along with the firm's own invoice so as to authenticate/verify the receipt of material from the same legal tie up firm.
6. Vendor shall also give an undertaking in the prescribed format regarding complete understanding of specification requirement and other requirement as mentioned in the item.
7. In case of falsification of documents and other instances, firm will be De-registered for the period of 03 years for entire range of products for any category.
8. CV norms are generic in nature and are to be used as criteria for consideration of any firm registered for any item of a particular category. Therefore, if a firm is registered for any item, it will be considered as registered for all the similar items (as notified) falling under that CV norms category.

**CV Norms for Polyester Fleece (various : size & colour)**

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SL. NO	ITEM	MANUFACTURING PLANT & MACHINERY		TEST EQUIPMENTS		REMARKS
		ESSENTIAL	DESIRABLE	ESSENTIAL	DESIRABLE	
01.	Polyester Fleece of various size & colour	Knitting Machine HTHP Dyeing Machine Raising Machine Shearing Machine Stenter		Condition Chamber Weighting Balance Shrinkage Test facility Digital pH Meter Laundrometer Bursting Strength Tester	*Light fastener Tester	*The firm should have agreement with NABL accredited lab for testing of this parameter.

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Essential Plant and Machinery Requirement:-

Preparatory and Weaving Process:-

1. Winding machine
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Processing Machines: - (Wherever applicable)

1. HTHP Dyeing Machine  
OR  
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OR  
Pad Dry and Thermosol on Loop Agers  
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Pad Dry and thermosol on Hotflue or any advanced machine.
2. Printing:- (Wherever applicable)  
a) Engraving Department/Exposure Plant  
b) Rotary Printing Machine  
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d) Oxidation and washing } OR FLASH AGER MACHINE
3. Calendaring Machine
4. Stenter

**Coating/Laminating Machine:-**

1. Coating/Laminating Machine: As per requirement.
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3. Stenter/Curing Machine: As per requirement.

Note:-

1. In case of non-availability of weaving and dyeing/printing set up, firm must have valid legal tie up of 03 years with other firm having weaving and Dyeing/printing set up. Legal agreement documents will be submitted by the firm applying for registration.
2. An undertaking by the firm having legal agreement for the weaving facilities will be submitted in the requisite format to agree that in the case of securing the order against a tender enquiry, firm will submit the documentary evidence in the form of invoices/e-way bills for utilizing the weaving facility with the legal tie up firm.
3. If the firm does not possess any of the essential Plant & Machinery, then it should not be recommended for registration.
4. Firm must possess valid pollution consent/clearance certificate from respective State Pollution Control Board.

**Essential Test Equipments:-**

1. Conditioning Chamber.
2. Weighing Balance.
3. Measuring scale/Measuring tape

4. Tensile Strength tester
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5. At the time of supply of material by the firm having secured a contract, firm should forward the necessary documents like e-way bill, commercial invoice issued by legal tie up firm along with the firm's own invoice so as to authenticate/verify the receipt of material from the same legal tie up firm.
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7. In case of falsification of documents and other instances, firm will be De-registered for the period of 03 years for entire range of products for any category.
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