

## TEST PARAMETER FOR CHEMICAL TESTING AT MANTRA, SURAT

<b>A</b>	<b>DYESTUFF :</b>
01	Identification of Dyestuff from : (a) Powder (b) Fabric
02	Moisture Content
03	Ash Content
04	Solubility (Water soluble dye)
05	<b>Dyeing Trial</b>
06	<b>Printing trial</b>
07	<b>Strength of Dye</b>
	( a) On UV Spectrophotometer (b) On computer colour matching
08	Migration property of dyestuff
09	Dispersion property of dyestuff
10	Leveling property of dyestuff
<b>11</b>	Salt Content
<b>12</b>	Pad-dry discharge printing
13	Whether the fabric is dyed or printed or dyed & printed
<b>B</b>	Whitening agent
1	Whiting trial
2	Whiteness (CIE, or Ganz, etc.)
3	Strength on UV spectrophotometer
<b>C</b>	<b>Fastness Property of Dyestuff or dyed fabric to:</b>
1	Washing (ISO 1 to 5 any one)
2	Rubbing or crocking fastness(Wet & Dry)
3	Sublimation fastness
4	Perspiration (Acidic & Alkaline)
5	Chlorine fastness

6	Light or weather fastness (Xenotest – Atlas 300)
<b>D</b>	<b>Thickner</b>
1	Moisture Content
2	Ash Content
3	Insoluble Matters
4	<b>Viscosity in :</b>
(a)	Seconds : Redwood viscosity of 1.0 % solution at 50° C. Sec.
(b)	Centipoise : Brookfield Viscometer (CPS)
5	pH Value of 1% solution
6	Salt Content
7	Tack Index
8	Free Alkali
9	Oil Content in Gum
<b>E</b>	<b>ANTISTATIC OIL/ SPINDLE OIL :</b>
1	Appearance
2	Moisture Content ( Karl Fischer method)
3	Specific Gravity / Density
4	pH of 5% solution
5	Pour Point
6	Acid Value
7	Emulsion stability of 10% aqueous solution for 24 hrs.
8	Viscosity in seconds at specific temp. (Redwood viscometer)
9	Viscosity in CPS at specific temp.(Brookfield viscometer)
10	Flash Point (C.O.C.)
<b>F</b>	<b>THERMIC FLUID OIL /HY-THERM OIL /DIESEL</b>
1	Appearance
2	Moisture Content (Karl Fischer method)
3	Specific gravity / density

4	Flash Point (C.O.C.)
5	Fire Point (C.O.C.)
6	Viscosity in seconds at specific temp. (Redwood viscometer)
7	Viscosity in CPS at specific temp. (Brookfield viscometer)
8	Neutralization Value / Acidity
9	Pour Point
10	Carbon Residue
11	Ash Content
12	Kinematic viscosity at 40° C or 100° C (C.S.T.)
13	Insoluble matters / sediment
14	Viscosity Index
<b>G</b>	<b>COAL / BIO COAL(on received base/ air dry base)</b>
1	Moisture Content
2	Ash Content
3	Volatile matters
4	Fixed Carbon (By differences)
5	Fixed Carbon (only testing)
6	Sulphur Content
7	Gross Calorific Value
<b>H</b>	<b>WATER</b>
1	Appearance/ Colour
2	pH Value
3	Total Solids
4	Suspended matter
5	Total Dissolved solid
6	Total Alkalinity
7	Alkalinity to Phenolphthalein

8	Total Hardness
9	Permanent Hardness or temporary hardness
10	Sulphates
11	Chlorides
12	Phosphates
13	Silica
14	Iron
15	Calcium
16	Magnesium
17	Free Chlorine
18	Turbidity
19	Temp.
20	Sodium /potassium by flame photometer
<b>I</b>	<b>SEQUESTERING AGENT (Metaclaw, NTA &amp; EDTA)</b>
1	Chelation Value
2	pH of 1% Solution
<b>J</b>	<b>ACIDS : PURITY</b>
1	Hydrochloric Acid
2	Sulphuric Acid (Oleum)
3	Nitric Acid
4	Formic Acid
5	Acetic Acid
6	Oxalic Acid
7	Tartaric Acid
8	Citric Acid
<b>K</b>	<b>PHOSPHORIC ACID:</b>
1	P <sub>2</sub> O <sub>5</sub> Content
2	Sulphate Content
3	Purity
4	Phenol (Carbolic Acid)

<b>L</b>	<b>BASES / ALKALIS :PURITY</b>
1	<b>Sodium Hydroxide (or Caustic Lye )</b>
2	Potassium Hydroxide
3	Sodium Carbonate (Soda Ash)
4	Potassium Carbonate
5	Ammonia Liquor
6	Lime (Calcium Hydroxide/Calcium Oxide)
7	Calcium Carbonate
<b>M</b>	<b>OXIDISING AGENT : PURITY</b>
1	Bleaching powder or chlorine tablet(calcium hydrochlorite/available chlorine/purity)
2	Sodium hypochlorite: Available chlorine/purity
3	Hydrogen peroxide: Purity/Volumes
4	Sodium chlorite
5	Resist salt(Sod.salt of meta nitrobenzene sulphonic acid)
6	Potassium permanganate (% Purity)
7	Potassium/Ammonium dichromate
<b>N</b>	<b>REDUCING AGENT : PURITY</b>
1	Sodium bisulphate
2	Sodium Hydrosulphite (Hydro)
3	<b>Stannous Chloride</b>
4	Decroline/ Safoline (Zinc sulphoxylate formaldehyde)
5	Rongolite/ formosule G (Sod. Sulphoxylate formaldehyde)
6	Sodium sulphite
<b>O</b>	<b>MISCELLANEOUS PROCESSING/ TESTS :</b>
1	Degumming trial silk
2	Scouring of fabric / carbonizing trial
3	Bleaching trial
4	Colour stripping & redyeing
5	% Size content on fabric
6	Dyeing trial of grey fabric (15cm x 15 cm)
7	Dyeing trial of grey fabric (1 mts to 3 mts)
8	Printing trial of grey fabric

9	%Oil content in yarn
10	% Spin finish in yarn
<b>P</b>	<b>SALT / SOLVENT</b>
1	Aluminium Sulphate/Alumina content ( $Al_2O_3$ )
2	SODIUM CHLORIDE (COMMON SALT) : Purity ,Solubility
3	Sodium Sulphate (Glauber salt) :purity
4	<b>Sodium Acetate:</b> pH of 1% Solution , Purity
5	Ammonium Citrate : Purity
6	Ammonium Tartrate : Purity
10	<b>Sod. Hexameta Phosphate :</b> (a) $P_2O_5$ ,(b) Purity
11	Titanium dioxide purity
12	TiO <sub>2</sub> content in Khadi or chips or yarn
13	<b>Glycerine :</b> (a) Purity (b) Boiling Point (c) Specific Gravity
14	<b>Diethylene Glycol :</b>
(a)	Boiling Point
(b)	Specific Gravity
(c)	Viscosity (in second) (Redwood viscometer)
(d)	Water Content (Karl Fischer Method)
15	<b>Monoethylene Glycol :</b>
(a)	Boiling Point
(b)	Specific Gravity
(c)	Viscosity (in second) (Redwood viscometer)
(d)	Water Content (Karl Fischer method)
16	<b>Polyethylene Glycol :</b>
(a)	Boiling Point
(b)	Specific Gravity
(c)	Viscosity (in second) (Redwood viscometer)
(d)	Water Content (Karl Fischer method)
17	<b>Acetone :,</b> (a) Boiling Point (b) Purity (c) Specific Gravity
18	<b>Ethyl Acetate :</b> (a) Boiling Point (b) Purity (c) Specific
19	<b>Thinner :</b> (a) Specific Gravity

20	<b>Pine Oil:</b> (a) Specific Gravity (b) Boiling Point
21	<b>Non-Ionic Detergent :</b>
(a)	Cloud Point
(b)	Ionic Nature
(e)	Loss in Wt. at Specified temperature and time
22	<b>Trichloro Ethylene:</b> (a) Boiling Point (b) Specific Gravity
23	<b>Stain Remover :</b> (a) Solid Content (b) Stain removing trial
24	<b>Polyvinyl Alcohol (P.V.A.) :</b>
(a)	Purity
(b)	Viscosity (CPS) (Brookfield viscometer)
(c)	Volatile matter at 105° C
(d)	Ash Content
25	<b>Toluene :</b>
(a)	Specific Gravity
(b)	Boiling Point
26	<b>Vam :</b>
(a)	Specific Gravity
(b)	Boiling Point
(c)	% Purity
27	<b>EL 40 :</b>
(a)	Solid Content
(b)	Cloud Point
28	<b>Benzene</b>
(a)	Specific Gravity
(b)	Boiling Point
29	<b>Berol 9.5 :</b>
(a)	Cloud Point
(b)	Non Volatile Compound at 105° C
30	Potassium Dichromate: purity Ferrous sulphate : purity
31	<b>FINISHING AUXILIARIES :</b>
Q	<b>Polysol :</b> (a) Solid Content (b) Active Content
1	

2	<b>UF Resin</b> : Solid Content
3	<b>Melamine Formaldehyde</b> : Solid Content
4	<b>DMDHEU or KVS</b> : Solid Content
5	<b>PE Emulsion (Polyethylene Emulsion)</b> : (a) Active Content (b) Solid Content
6	<b>Silicone Emulsion</b> : Oily Residue
7	NKS/NNK/MHN : Solid Content
8	Polycol (PVA Sol.) : Solid Content
9	<b>Softener (CMK,MHC,NCRS,EMSP)</b> :
(a)	Ionic Nature
(b)	pH of 1% Solu
(c)	Total Solids
10	<b>FN (Amino Silicon)</b> :
(a)	Oily Residue
11	Binder/Fixer CCL/ Antifoaming Agent :Solid content
12	Holtex PGM (Blanket Adhesive ) : Solid Content
13	<b>Stains on Fabric</b>
(a)	Identification
(b)	Removal
14	<b>Leveling Agent : ( NH, PA-66, DFT ) :</b>
(a)	Loss in wt. at 100°C
(b)	pH Value
(c)	Ionic Nature
(d)	Leveling Property
R	<b>GENERAL TESTS :</b>
1	Boiling Point
2	Free Acidity
3	Acid Value
4	Saponification Value
5	Ionic Nature
6	Sp. Gravity
7	Density
8	Pour Point
9	Flash Point



SR NO.	
10	pH Value of 1% Soln.
11	Fire Point
12	Melting Point
13	Ash Content
14	Moisture Content
15	Viscosity (In seconds) (Redwood viscometer)
16	Viscosity (In CPS) (Brookfield viscometer)
17	Solid Content
18	Viscosity Index
19	Flammability test (at 45 angle) (Incline FR)
20	Freezing point
21	Defoaming time
<b>22</b>	Finishing Trial
23	Moisture content ( Karl fischer method)
24	Mesh/Particle size of gum/chemical powder
25	Purity of Gypsum
26	% Coating
27	Chips -Whether it is Nylon 6 or 66
28	C.T.C- Boiling point
29	Polymer - solid content
30	Removal of coating from sample
31	Moisture regain or content(%)
32	Identification of(single component)fibre
33	Total finish on fiber
34	%Oil content in yarn
35	% Spin finish in yarn
36	% Moisture content (Oven method)
37	Identification of yarn

38	% of loss of boiling water or scouring loss
39	% Blend composition with identification
40	Accelerated washing fastness
41	Yarn Appearance by Titanium Dioxide
42	QUV Accelerated weathering testing <p style="text-align: center;">(1) condensation method</p> <p style="text-align: center;">(2) spray method</p>
43	Barium activity number
44	Colour fastness to Dry cleaning of fabric/yarn
45	Identi.of Cationic dye dyeable poly. By stripping & redyeing method