

Testings

5 Materials

No	Item	Parameter
	Ceramic and Clay	
1	Bricket Saw Dust / Wood	Calorific Value, Ash content Moisture content
2	Bricks (Clay)	Dimensions, Water Absorption Efflorescence Compressive Strength - 01 brick
3	Clay Roofing Tiles	as per SLS 2 : 1975
4	Minerals (Clay, Dolomite, Feldspar, Quartz, Calcite, Mica, Pyrophyllite, Apatite,	LOI, Digestion, SiO ₂ , MgO, CaO, Fe ₂ O ₃ , Al ₂ O ₃ , Na ₂ O, K ₂ O, TiO ₂
5	Sand	Clay content, Cl-, SO ₃ , Silt content, Organic impurities, Alkali reactivity, Inorganic impurities (CaO, MgO, Al ₂ O ₃ and Fe ₂ O ₃ , Alkali Content
6	Silica Fume as per BS EN 13263 - 1 : 2005 (E)	SiO ₂ content, Cl- content, SO ₃ Content
7	Tea pot, Dinner Plate, Soup Cup Vegetable Bowl, Sugar Bowl, Oval Backer, Soup Plate, Cup, Cake plate, Mug, Square plate, Cereal bowl, Salad Plates, Tea cups	Pb and Cd
8	Tile Adhesive Mortar	Tensile Adhesion strength
9	Refractory Bricks	Compressive Strength, Al ₂ O ₃ content

10	Tile Grout & Tile Adhesive	Flexural & Compressive strength under standard condition, Water Absorption, Open Time, Initial Tensile Adhesion Strength, Tensile Adhesion Strength after heat aging, Tensile Adhesion Strength after water immersion
11	Tiles (Clay)	Dimensions, Chloride, Transverse Breaking Strength.
Construction Materials		
12	Aluminium Paints	Leafing value, Brushing Properties, Aluminium Metal content, Flow time, Solid content, Bulk Density, Drying time, Flash point, Gloss Flexibility & adhesion, Resistance to water, Protection against corrosion
13	Anti-Corrosive Priming Paint	Consistency, Finish, Drying Time Scratch Hardness, Bending Properties, Protection against corrosion under condition, Additional sample, Uncombined water, Flash Point, Ash content, Solid Content, Pigment binder ratio, Wet hiding power, Finesse of grind, Flow time, Bulk Density, Resistance to salt spray - per day
14	Asbestos Sheets (Corrugated)	Dimensions, Water Absorption, Water Permeability, Breaking Load, Density
15	Asbestos Sheets (Flat)	Dimensions, Acid Resistance, Density Water Absorption, Bending Strength
16	Cement (Physical tests as per BS EN/SLS)	Strength (2 & 28 days), Finess, Soundness, Setting time (initial & final), S.G
17	Cement (Chemical tests as per BS EN/SLS)	LOI, IR, CaO/MgO, SiO ₂ , Al ₂ O ₃ , Fe ₂ O ₃ , Cl-, Total, Total alkali content, Tricalcium Aluminate
18	Clinker	Alkali content
19	Coarse Aggregate/ Fine Aggregates	Specifi gravity & water absorption, Bulk density & Voids, SO ₃ , Alkali reactivity, Impact value, Absorption of water, Aggregate impact value, Clay content, Sieve analysis, Relative Density, Grading, Shell Content, 10% Fines value, Flakiness Index, Clay & Silt content, Specific Gravity, Cl-content, Soundness, Elongation Index, Unit weight & voids content Los Angeles abrasion test, Grading, Material finer than 0.075 mm
20	Concrete	Concrete cube
21	Concrete (Fresh)	Cube casting and testing per cube Slump test - 01 test

22	Fly Ash	Loss on Ignition, Moisture content, SiO ₂ , Al ₂ O ₃ , Fe ₂ O ₃ , MgO, CaO, SO ₃ and Na ₂ O
23	Granite	Water absorption, Density, Compressive strength
24	Granular	Sieve Analysis
25	Hollow Blocks & Solid Blocks	Hollow Block, Solid Block
26	Metal/Steel (Chemical Analysis)	C, S, P, Cu, Ni, Zn, Cr, Mn, V, Mo, Pb, Fe...etc
27	Metal/Steel (Physical & Mechanical properties)	Sample preparation, Tensile strength, Elongation, Yield strength, Hardness, Mass of coating, Dimensions
28	Mortar	Sulphur trioxide, Chloride, water absorption of mortar block composition, Dimensions
29	Mortar Bag	Water transmission rate
30	Road Marking Materials (one sample)	Road Marking Materials
31	Road Marking Paints - SLS 895 : 1990	Solids Contents, Finess of grind Drying Time, Bulk Density, Resistance to bleeding, Abrasion Resistance, Flexibility, Resistance to water, Ash content,
32	Salt Spray test	Screws, Additional sample
33	Skim Coat	Particle sizes, Type of binder Ash content, CaCO ₃ and MgCO ₃ Water resistance ability, Scratch hardness
34	Solvent Cement	Solvent Cement as per SLS 935 Bond Strength / Lap Shear Strength
35	Wall Putty	Putrefaction, Check cracking pH, Wet abrasion, Solid content Fineness of grind, Binder identification, Binder quantity
36	Water for concreting	SO ₃ , TDS, HCO ₃ , CO ₃ , pH Alkali content (Sodium & Pottasium)
37	Zinc Skimming	Hg, Pb and Cd
	Footwear and Leather	
38	Geotextiles	Wide width tensile strength and Elongation, Puncture resistance

		Trapezoidal tear resistance, Mass per unit area, Physical nature of material, Thickness of material (ASTM D 5199), Unit Weight (ASTM D 5261), Tensile Strength & Elongation (ASTM 4595)
	Medical/Surgical Materials	
39	Baby Diapers	Moisture, Absorption capacity, Dimensions, Ash content, Total viable bacterial count, Enterobacteriaceae <i>Staphylococcus, Pseudomonas, aeruginosa</i>
40	Cotton Lint	Cotton Lint - SLS / BP
41	Cotton Bandages	Testing of stock for DHS, Stock 63000 nos., Sampling Charges
42	Diapers	Absorption + pH + Dimensions + Ash content
43	Surgical Gauze Absorbent	Stock meters 0 - 100000
44	Sanitary towels	Sanitary towels
45	Surgical Gauze Absorbent	Stock meters 0 - 100000
46	Surgical Gloves	Testing as per BSEN 455 Part 1 & 2
47	Testing of Cotton Crepe Bandage – Elastic	Fiber Identification, Elasticity Threads per 10 cm, Weight per unit area Water soluble and ether soluble sulslances
	Paper and Boards	
48	Carbon Paper	Typewriter / Pencil
49	Corrugated Boards / Cartons	Thickness, Grammage of, combine, Combined grammage, Grammage of separated liners Bursting strength of board up to 5 ply Bursting strength of board 7 ply Water absorption, Box compression Puncher resistance, Flat crush, Edge crush, Drop test (Boxes)
50	Kraft Paper Bag/ Paper Sack	Dimensions, Moisture content, Air resistance, TEA, Tensile/ Stretch at Break, Grammage, Tensile/ Stretch at Break/ Tear, Tear. Porosity, Bursting strength
51	Packing Material	Thickness (Total), Material Combination, Thickness per ply
52	Paper and Boards	Grammage, Cobb sizing, Bulk G. S. M. (Weight of the paper), Tensile strength both (MD, CD), Tear strength both (MD, CD), Bulking Thickness, Weight of the fiber content, Tensile Index, Tear Index, Grammage (2 ply), Stiffness, Quality of Paper, Wood Free, Substance Gsm Tensile strength/index, Stretch at break, Bursting strength / index, Folding Endurance, Water absorption, cobb, Tear strength, Porosity Gurley, Smoothness, Softness, Brightness, Opacity, Fiber analysis, Moisture content, pH Value, Thickness
53	Paper Sack	Tensile Index, Stretch, Tensile Energy Absorption, Burst Index (Wet & Dry), Tear Index, Grammage (2 ply),

		Grammage Inner Ply
54	Security Paper	Erasure of washable per ink, Thickness Air Porosity, Tearing resistance Grammage, Tensile Index Tearing Strength, Folding Endurance Fiber identification, Sensitivity for solvents, Erasure of ball point ink Erasure of washable pen ink, Total per sample
Petrochemicals		
55	Bitumen based product	Water Vapor transmission
56	Bituminous Anticorrosive Paints	Drying time (Hard), Flash Point Bending Properties, Protection against corrosion under condition Resistance to water, Solids, Resistance to Heat, Ash content, Pigment binder ratio, Uncombined water, Resistance to acid, Resistance to chlorine, Resistance to alkali
57	Mineral Oil	Viscosity (Kynematic), Gross Calorific Value, Sulphur Content, Water Content, Density, Specific Gravity, Moisture, Viscosity (Redwood), Flash Point, Ash, Sludge, Heavy Metals
58	Shoe Polish	as per SLS for customers specifications
59	Shoe Polish	Consistency, pH of water extract Non Volatile matter, Ash on non volatile matter, Distillation range of volatile portion, Water content Performance and Drying time, Water soluble stain, Vacuum distillation
60	Shoe/ Shoe heels/ Canvas shoes/ Leather Shoes	Sole Adhesion Test, Upper Sole Bonding Adhesion Strength, Abrasion resistance, Hardness, Flexing (sole), Flexing (upper) (D mattiea testing), Tear strength of upper material, Thickness of the upper material, Compression test, State of cure, Electrical conductivity, Density, as per SLS/ ISO for customers specifications, Dimensions,
Rubber and Plastics		
61	Adhesive (General Purpose)	General Requirements, pH, Bond permanency, Brittleness and moisture absorption, Stability
62	Adhesive (PVA Based)	Total solids, pH value, Monomer content, Consistency, Resistance to mould grout, Solid content Bulk Density, Freedom from staining, Stability at 37 °C, Breaking Load
63	Admixture	Dry Material Content, Relative Density, Ash content
64	Aerial Bundled Conductors	Conditioning Tensile Strength & Elongation

65	Binder and Glue	Glue - Viscosity, Glue -Density Binder - Culture test
66	Carboxyl Methyl Cellulose	Moisture, Purity, Degree of Substitution pH value, Viscosity
67	Cellular Flexible Materials	Tensile Strength (Both MD & CD), Tear Strength (Both MD & CD), Water absorption, Moisture Permeability, Puncture Resistance
68	Characterization of polymers	Material Identification, Ash Content, melt flow index (MFI)
69	Condoms	as per ISO 4074
70	Condoms	To SLS Standard
71	Condoms	as per ISO
72	Conduits (Flexible/ Rigid / Plain)	Dimensions/ Construction/ Markings, Impact test, Resistance to Burning, Bending test, Compression test Collapse test, Resistance to heat, Electrical Installation
73	Electrical Insulation tapes	Adhesion to Backing, Breaking Strength, Flammability, Adhesion to Steel
74	Electronic Torque Rheometer Extruder and Plan	Torque Rheometer / First sample Torque Rheometer / additional sample, Torque Rheometer / per month, Torque Rheometer / fixed charge, Extruder / Per hour Extruder / Per month Planetary mixer / per sample Planetary mixer / per month
75	Emulsion and Enamel Paints	Emulsion Exterior, Emulsion Interior, Enamel Paint, UV Resistance, Additional one sample
76	Emulsion Paints	Drying time, Viscosity, pH Value, Resistance to wet abrasion, Fineness of grind, Weight / litre, Solids content Ash content, Spreading Capacity Temperature Stability (10 oC & 40 oC), Recoating Properties, Resistance to Alkali
77	Enamel Paints	Protection against corrosion under conditions of condensation, Resistance to continuous salt spray, Bend test, Scratch Hardness, Brushing Properties Bending Properties, Drying time Flow time, Gloss, Solids, Ash content, Uncombined water, Weight / liter, Scratch resistance, Resistance to water, Flash Point, Temperature Stability (10 oC & 40 oC)
78	Hot melt adhesive	Melting Point / Softning point
79	Latex Rubber Sheet	Specific gravity, Hardness Tensile strength and Elongation at break Tension set, Tear strength
80	Latex	Total Solids content (TSC), Dry Rubber content (DRC), Mechanical Stability Time (MST), Volatile Fatty Acid Alkalinity, Viscosity, Mg content

		Dirt content, N2 content, Sludge
81	Latex / Latex Rubber Sheet/ Strapping band	Total Solids content (TSC), Dry Rubber content, (DRC), Mechanical Stability Time (MST), Volatile Fatty Acid Alkalinity, Viscosity, Mg content Dirt content, N2 content, Sludge, Specific gravity, Hardness Tensile strength and Elongation at break, Tension set, Tear strength, Breaking Load (Tensile strength)
82	Material (polymer)	Material Identification, Filler Content (Ash)
83	Medium Oil Alkyd Resin based on Soya Bean Oil	Solid content & Solvent percentage
84	Molded Solid Rubber Pads	Compression Set, Hardness (Before Aging), Hardness (After ageing), Changes for the ageing oven, Ozone Resistance
85	Polypropylene bags (sacks)	Material Identification, Construction, Dimensions, Mass of sack, Liner density of tape, Tape width, Seam and stitching, Seam strength, Fabric breaking strength, Bursting strength, Bulk Strength 2 Sacks, Inner liner (Thickness, Length & Width)
86	Polythene bags/ Polythene Sleeving/ polymer sheets and films (PE, PP ect.)/ Polythene Pads	Height, Width, Gussets length and Tearing strength, Gauge, Dimensions, Thickness, Lay flat width, Tensile strength and Elongation-both MD and CD, Material Identification, Moisture, Density, Sealing strength, Impact (dart dead load), Burst Pressure, Water absorption, Chemical resistance, UV Resistance per day, Water vapor permeability (WVP), Flammability
87	PVA Binder (paints)	Film appearance, Solids, Viscosity, pH value, Monomer
88	PVC Solvent Cement as per SLS 935	Bond strength, Shear strength Film properties, Bond strength or lap shear strength, Pressure test, Viscosity, Hydrostatic Burst strength
89	PVC Trucking	PVC Trucking as per SLS 1206 : 2000, Dimension/Marking/ Construction, Cable supporting test, Resistance to Heat `Resistance to Flame propagation Impact test
90	PVC U Fittings	Stress Relief Test (as per SLS 659), Hydraulic Characteristics
91	Rail Insulators	Glass content, Material Identification Specific Gravity, Breaking Load Porosity, Hardness
92	Reclaimed Rubber	Ash content, Acetone extract Specific Gravity, Hardness Tensile Strength, Elongation at break
93	Resin	Drying Time
94	Rheometer Curve-Rubber	Rheometer Properties
95	Rigid Conduits	Electrical Installation
96	Rubber Cord	Shore Hardness, Tensile strength and Elongation at break, Polymer analysis

97	Rubber Sealing Rings	Tensile Strength + Elongation at break
98	Rubber Sealing Rings	Tensile Strength + Elongation at break, Hardness, Compression set at 70 oC, Water absorption swell, Accelerated aging test
99	Rubber/ Dry Rubber Testing/ Reclaim Rubber/ Rubber Compound	Rheological Properties, Tensile Strength, Elongation at break, Tear strength, Identification of rubber, Permanent set measurement, To test for skid resistance of tire treads, Determination of relative density & dens, Hardness measurement Tension set at normal or high temperature, Ash content, Acetone extract, Specific Gravity, Aging, Abrasion resistance, Resilience measurement, Scott flexing test, Hysteresis test, Skid resistance of tire treads, Water absorption, Effect of liquids, Tear strength, Compression test, Stress relaxation
100	Safety Film	Breaking Strength, Tear strength Impact test
101	Sleeping Bags	Dimensions, Identification of upper surface cloth material, Identification of bottom surface coated material, Identification of thread material
102	Stamp Pad	General Requirement, Color, Performance, Glycerol content, Color fastness
103	Strapping band	Breaking Load (Tensile strength)
104	Testing of Nylon Rope	Linear Density, Ley Length Diameter, Elongation & Breaking Force
105	Thermoplastics beads - Road Marking	Binder content, Solid glass beads Softening point, Size distribution of glass beads
106	uPVC (pipe/ Pipe Fittings/ Pipe Joints/ Pressure Pipe/ Telecom Pipes/ Water Supply Pipes)	Tensile properties, Hydrostatic pressure test, Longitudinal reversion test, Appearance /Dimension /Colour Marking (Freedom from defects), Tensile Strength & Elongation, Resistance to Sulfuric Acid Resistance to Acetone, Flattening test, Resistance to impact, Heat Reversion test, Hydrostatic pressure test, Stress relief test, Longitudinal reversion test, Flattening Test, Hydraulic Characteristics, Hardness, test as per SLS standard
107	Varnish Based on Synthetic Resin	Recoating properties Colour - lovibond Finish, Scratch Hardness, Bending properties, Stripping test, Drying time, Flash point, Volatile matter, Viscosity, Resistance to water, Resistance to acid, Resistance to alkali
108	Varnish Based on Synthetic Resin	Recoating properties Colour - lovibond Finish, Scratch Hardness, Bending properties, Stripping test, Drying time, Flash point, Volatile matter, Viscosity, Resistance to water, Resistance to acid, Resistance to alkali

109	Zinc Oxide	Purity, ZnO + Pb + Cu + Fe + Mn Residue on 45 microns (wet), pH Loss on ignition at 850, Chemical Composition (ZnO, PbO, CaO, Cu and Mn)
110	Zinc Oxide Elastic Adhesive Surgical Tape USP	Zinc Oxide Elastic Adhesive Tape
Timber		
111	Firewood	Moisture content
112	Jute Products	Jute sacks (Gunny bags) SLS 700 Ball / Hank twine SLS 356 Part 2
113	Proximate analysis	Moisture content, Volatile Matter , Fixed carbon, Calorific value
114	uPVC (pipe/ Pipe Fittings/ Pipe Joints/ Pressure Pipe/ Telecom Pipes/ Water Supply Pipes)	Tensile properties, Hydrostatic pressure test, Longitudinal reversion test, Appearance /Dimension /Colour Marking (Freedom from defects), Tensile Strength & Elongation, Resistance to Sulfuric Acid Resistance to Acetone, Flattening test, Resistance to impact, Heat Reversion test, Hydrostatic pressure test, Stress relief test, Longitudinal reversion test, Flattening Test, Hydraulic Characteristics, Hardness, test as per SLS standard
115	Varnish Based on Synthetic Resin	Recoating properties Colour - lovibond Finish, Scratch Hardness, Bending properties, Stripping test, Drying time, Flash point, Volatile matter, Viscosity, Resistance to water, Resistance to acid, Resistance to alkali
116	Testing of Timber and products	Penetration test, Each additional sample, Dry salt retention test, Moisture, Penetration test, Door -Plywood, Shuttering, Tea chest
117	Wood Chip	Calorific Value, Ash content Moisture content
118	Wood Preservatives	Creosote - Acc. BS 144
Wool and Cellulose		
119	Absorbent Cotton Lint	Stock up to 2500 rolls
120	Absorbent Cotton Wool	Stock up to 2000 Rolls
121	Activated Carbon	Pyrophoric Activity
122	Briquette Rice Husk / Paddy Husk	Calorific Value, Ash content Moisture content
123	Calorific value	Biomass fuels / food items
124	Canes	Impact resistance (Izod), Tensile strength and Elongation at Break

125	Coal	Fixed carbon, Total sulphur Moisture content (Total and inherent), Volatile Matter & Ash, Gross calorific value, Sulphur content, Total carbon content, Volatile matter, Total ash content, Crucible swelling number
126	Coir Blanket	Mass per unit area, Thickness Grab breaking load, Grab elongation Tensile Strength & Elongation at break
127	Coir Blanket	Mass per unit area, Thickness, Grab breaking load, Grab elongation, Tensile Strength & Elongation at break
128	Foundry Coke	Foundry Coke
129	Reagents to check Boron treatment	Reagents A & B 250 ml each Phenolphthalein 250 ml