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IQAS-026

Information on Classification of Product Categories in Testing, Calibration Field and Reference Materials

AMENDMENT SHEET

Sr. No.	Page No.	Clause No.	Date of Amendment	Reasons of amendment	Amendment details	Remark	Approved by
1.	--	--	28.10.2026	Periodic Review as per document control procedure	Detailing as part of periodic review	Replaces previous issue 02 dated 04.12.2024	R.S. Rana
2.							
3.							

Content 3
1. Objective 6
2. Scope 6
3. Responsibility 6
4. Introduction: 6
5. Introduction of product group under calibration 6
5.1. Chemical Discipline (Product Groups in Chemical Calibration) 6
5.2. Electro-technical Discipline (Product Groups for Electro Technical) 6
5.3. Fluid Flow Discipline (Product Groups for Fluid Flow) 8
5.4. Mechanical Discipline (Product Groups for Mechanical Calibration) 8
5.5. Medical Devices Calibration (Product group for Medical Devices) 10
5.6. Optical Discipline (Product Groups for Optical Calibration) 11
5.7. Radiological Discipline (Product Groups for Radiological Calibration) 11
5.8. Thermal Discipline (Product Groups for Thermal Calibration) 12
6. Introduction of product group under testing 13
6.1 Biological Discipline (Product Groups for Biological Testing) 13
6.2 Chemical Testing (Product Groups for Chemical Testing) 17
6.3 Electrical Testing (Product Groups for Electrical Testing) 25
6.4 Electronics Testing (Product Groups for Electronics Testing) 29
6.5 Fluid Flow Discipline (Product Groups for Fluid Flow Testing) 33
6.6 Forensic Science Testing (Product Groups for Forensic Science Testing) 34
6.7 Mechanical Testing (Product Groups for Mechanical Testing) 34
6.8 Non-Destructive Testing (Product Groups for Non-Destructive Testing) 38
6.9 Photometry (Product Groups for Photometry) 39
6.10 Radiological Testing (Product Groups for Radiological Testing) 39
6.11 Diagnostic Radiology QA Testing Discipline (Product Groups for diagnostic Radiology QA Testing) 40
6.12 Software & IT System Testing (Product Groups for Software & IT System Testing) 40
Categories of Reference Material 41
Category A: Chemical Composition 41
7.1 Metals 41
7.2: Inorganic Reference Materials 41
7.3 Organic Reference Materials 42

7.4: Environmental Reference Materials 43
7.5 Health and Industrial Hygiene 44
7.6: Engine wear materials 44
7.7: Analysed Gases 44
7.8: Forensic Reference Materials 44
7.9 Ion Activity 45
8. Category B: Biological and Clinical Properties 45
8.1 General Medicine 45
8.2 Clinical Chemistry 45
8.3 Tissue Pathology and Cytology 45
8.4 Haematology 45
8.5 Immunohematology 45
8.6 Immunology 45
8.7 Parasitology 45
8.8 Bacteriology and Mycology 45
8.9 Virology 45
8.10 Other Biological and Clinical Reference Materials 45
8.11 Forensic Reference Materials 45
9. Category C: Physical Properties 45
9.1 Reference Materials with Optical Properties 46
9.2 Reference Materials with Electrical and Magnetic Properties 46
9.3 Reference Materials for Frequency Measurements 46
9.4 Reference Materials for Radioactivity 46
9.5 Reference Materials for Thermodynamic Properties 46
9.6 Reference Materials for Physicochemical Properties 46
9.7 Reference Materials for Fibre Identification 47
9.8 Reference Materials for Other Properties 47
10. Category D: Engineering Properties 47
10.1 Surface Finish 47
10.2 Sizing 47
10.3 Non-Destructive Testing 47
10.4 Hardness 47
10.5 Impact Toughness 48

10.6 Tensile Strength.....48
10.7 Elasticity.....48
10.8 Creep 48
10.9 Fire Research 48
11. Category E: Miscellaneous 48
11.1 Others.....48

1. Objective

This covers group and sub-groups of Calibration, Testing and Reference Materials.

2. Scope

This document applies to all applicant and accredited laboratories by IQAS in the field of testing and calibration as per ISO/IEC 17025:2017and reference materials as per ISO/IEC 17034:2016.

3. Responsibility

All applicant and accredited CABs.

4. Introduction:

This is a guidance document which will help laboratories to define its scope as per the recommended classification of product groups across Testing, Calibration fields and Reference Materials. Further, this document in no ways implies that IQAS grants accreditation for these defined product group(s) only, rather it facilitates the laboratory to categorize its testing/ calibration and reference materials activities & calculation of fees while submission of application towards accreditation.

Note: - Please refer IQAS 001 for Fee Structure

5. Introduction of product group under calibration

5.1. Chemical Discipline (Product Groups in Chemical Calibration)

5.1.1 Calibration of equipment like

pH meter	Breath alcohol tester
Conductivity meter	Oxygen Reduction Potential (ORP) meter
Total Dissolved Solids (TDS) meter	Gas detector/analyzer
Turbidity meter	Stack emission analyzer
Dissolved Oxygen	Flame Photometer
Refractive Index	Elisa Reader
Salinity tester	Others

5.2. Electro-technical Discipline (Product Groups for Electro Technical)

5.2.1 Alternating Current (< 1 GHz)

Attenuation	FM Modulation
Capacitance	AM Modulation
Current	Phase angle
Dielectric loss angle	Power
Dissipation factor	Power factor
Energy	Resistance
Distortion	Reflection Coefficient
Dissipation factor	Voltage
Inductance	High Voltage (1 kV and above)
Impedance	Voltage & current ratio
Others	

5.2.2 Direct Current

Current	Voltage
Power	High Voltage (1 kV and above)
Resistance	Voltage & current ratio
Capacitance	Others
Inductance	

5.2.3 RF/Microwave (1 GHz and Above)

Impedance	Attenuation
FM Modulation	VSWR
AM Modulation	Others
Power	

5.2.4 Time & Frequency

Frequency counters	L.F. frequency
Frequency meters	Microwave/RF frequency
H.F. frequency	Stop watches
Time interval	Timers
Others	

5.2.5 EMI/ EMC

Antenna Factor	Impulse/ Immunity Generator
Attenuation	Insertion Loss/ RF Attenuation
Automotive Transient Generator	Impedance
Coupling Factor/ Coupling Loss Directivity	Longitudinal conversion Loss
Conducted RF Test System	Preamplifier Gain
Combination Wave Surge Test System	Phase angle
Damped Oscillatory Wave Generator	RF Power Amplifier
Decoupling of Common Mode Disturbance	Ring Wave Generator
Electrostatic Discharge	Telecom Surge Test System
Electrical Fast Transients	Return loss (VSWR)
EMI Test Receiver	Voltage Dips/ Interruptions
Isolation	Voltage Division Factor
Impulse Voltage	Others

5.2.6 Electrical equipment

Current Transformers	Read out of pH meter (Simulation method)
Voltage Transformers	Read out of Conductivity Meter (Simulation method)
Oscilloscopes	Read out of Turbidity Meter (Simulation method)
Bridges	Read out of Oxidation Reduction Potential Meter (Simulation method)
CT-VT Comparator	Others
Oscilloscope	

5.2.7 Temperature Simulation

RTD	Others
Thermocouple	

5.2.8 Miscellaneous

5.3. Fluid Flow Discipline (Product Groups for Fluid Flow)

5.3.1 Flow Measuring Devices

Anemometers	Top Loading Calibrator
Gas flow meters	Turbine Meter
Liquid flow meters	Orifice Plates
Orifice meters	Flow Nozzles
Pitot tubes	Averaging Pitot Tubes
Ford Cup	Venturi Meters
Flow Cup	Others
Rotameter	

5.3.2 Miscellaneous

5.4. Mechanical Discipline (Product Groups for Mechanical Calibration)

5.4.1 Dimension (Basic-Measuring Instrument, Gauges etc.)

Linear - Measuring Instruments	Depth Micrometers,
Vernier & Digital Calipers,	Micrometer Head
External Micrometers,	Micrometer Setting Pieces
Bench Micrometer & Micrometer Head, Bore Gauges, Stick Micrometers, Tripoint Internal Micrometers, Depth Gauges, Dial Gauge, Steel Scales & Line Standards, Measuring Tape, Pie-Tape, Extensometer)	**Linear - Measuring Aids** (Straight Edges, Engineers Parallels, Surface Plate (Cast Iron), Surface Plate (Granite), Angle Plates, Right Angle & Box Angle Plates, Engineers Square, Granite Squares, Cylindrical Square, V-Block, Welded V- Blocks, Universal and Elongated V-Blocks, Test Mandrels (Straight), Test Mandrels (Taper), Bench Centre, Vernier Height Gauge)
Angle Measuring Devices (Angle Gauges, Bevel Protractors, Combination Set, Sine Centre, Sine Bar & Sine Table, Spirit Levels, Frame Level, Electronic Level, Inclinometer, Clinometers, Auto Collimator, Polygon Mirrors, Prisms, Rotary Table, Index Table, Rotary Calibrator)	**Surface Topography Measuring Devices -** (Surface Roughness Masters, Depth Masters, Radius Standards, Master Sphere For CMM, Optical Flats, Optical Parallels, Hemi-Sphere (Roundness Master), Magnification Master (Flick Standard), Master Cylinder, Cylindrical Square, Roughness Tester-Portable, Roughness Tester-Stand Alone, Contour Profiler, Roundness Tester, Form Tester)
Gauges (Setting Master, Plug Gauges, Plug Gauges, Setting Master Ring Gauges, Ring Gauges, Snap Gauges, Taper Gauges)	Others

5.4.2 Dimension (Precision- Precision Instruments and Surface Topology)

Linear – Reference (Measuring) Equipment (Gauge Block Comparators, Microscope/ Universal Length Measuring Machine (ULM), Length Measuring Machine, Universal Measuring Microscope (UMM), Profile Projector, Bore Comparator, Dial Gauge Calibrator, Floating carriage Micrometer, Coordinate Measuring Machines, Laser Interferometer, Flatness Interferometer)	**Linear & Form – Reference Equipment** (Gauge Blocks, Gauge Block Accessories, Long Gauge Blocks, Length Bar, Step Gauges, Calliper Checker, Check Master, Height Setting Micrometers, Electronic Height Gauges, Height Master, Raiser Blocks, Cylindrical Setting Standards, Roundness Master S (Hemi-Sphere, Magnification Standard, Master Cylinder, Optical Flat), Surface Roughness Masters (Surface Masters, Depth Standard), Radius Standard/ Contour Master, Glass Scale, Graticule and Glass Grid)
Others	

5.4.3 Mass and Volume

Weighing machine/scale	Mass/Weight Standards
Volumetric Glassware	Burettes
Pipettes	Volumetric flask
Piston operated volumetric apparatus	Others

5.4.4 Acceleration, & Speed

Accelerometer	Centrifuge
Speedometer	Vibration Machine/Table
Tachometer	Planetary Mixer
Stroboscope	Flow Table
Speed Transducer / Sensor / Indicator	Others

5.4.5 Acoustics

Sound calibrators	Audiometers
Sound level meters	Others

5.4.6 Density and Viscosity

Densitometers	Digital Viscometer
Hydrometers	Flow / Ford Cup
Capillary Viscometer	Others
Dial type Viscometer	

5.4.7 Pressure and Vacuum

Hydraulic DWT/Pressure Balance	Pneumatic DWT/Pressure Balance
Vacuum/Absolute DWT/Pressure Balance	Precision Pressure Calibrator
Barometer	Pressure transducer with digital indicator
Pressure transmitter with digital indicator	Industrial Pressure Gauge (analog/dig)
Pressure Switches	Magnahelic Gauge, Pirani Gauge
Vacuum Gauge	Differential Pressure Gauge
Manometer	Pressure recorders
Others	

5.4.8 Force

Load cells	Proving Ring
Push Pull Gauge	Force gauges
Tensile testing machines	Compression testing machines
Universal Testing Machine	Force Proving Instruments
Mobile Force Measuring System	Others

5.4.9 Torque Generating & Measuring devices

Torque Testing Machine	Torque Transducer
Torque Transmitters	Torque Multiplying Gearbox
Torque Wrenches (Type I & II)	Continuous rotating torque tool (Oil Pulse/Pneumatic/Electrical/Hydraulic)
Handheld pneumatic assembly tools	Hydraulic impulse tools
Torque controlled DCNR	Impact torque wrenches/Tools
Rotary and percussive pneumatic Tools	Others

5.4.10 Hardness & Impact

Test blocks, Brinell	Knoop Hardness
Test blocks, Rockwell	Impact testing machine (Izod)
Test blocks, Vickers	Impact testing machine (Charpy)
Testing machines, Brinell	Durometer
Testing machines, Rockwell	Rubber hardness tester
Testing machines, Vickers	Others

5.4.11 Miscellaneous

5.5. Medical Devices Calibration (Product group for Medical Devices)

5.5.1 Discharge Equipment/ Devices

Suction Pump	Enteral Feeding Pump
Flow meter with Humidifier	CPAP
Pressure Gauge of Oxygen Cylinder	BiPAP
BP Apparatus (Sphygmomanometer)	Boyles Apparatus
Nebulizer (Electric)	Anesthesia Machine
Syringe Pump	Others
Infusion Pump	

5.5.2 Patient Conditioning/ Maintenance

Incubator	Heart Lung Machine
Autoclave	Patient Warmer
Defibrillator	OT Table
Ventilator	Radiant Warmer
Electro Surgical Unit/ Diathermy Machine/ Cautery Machine.	Irradiance Meter
External Pace Maker	Phototherapy Unit
Electronic Tourniquet	Others
Dialysis Machine	

5.5.3 Monitoring Unit

Patient Monitors	Weighing Scale
Apnea Monitors	Haematology Analyser
Fetal Monitor	Others
Therapeutic Stimulator	

5.5.4 Imaging/ Plotters

Trans illuminator light source	ECG
EEG	Others
Fetal Doppler	

5.5.5 Medical Device Analyzer/ Simulator Equipment

Electrical Safety Analyzer	Electro Surgical Analyzer
Infusion Device Analyzer	Vital Sign Simulator
Incubator Analyzer	Patient Monitor Simulator
Defibrillator Analyzer	Others
Gas Flow Analyzer	

5.5.6 Miscellaneous

5.6. Optical Discipline (Product Groups for Optical Calibration)

5.6.1 Equipment

Ultraviolet radiometers	Optical and radiation detectors
Infrared radiometers	Others

5.6.2 Optical

Attenuation	Lux Meter
Colour/Chromaticity co-ordinates	Power
Colour temperature	Radiance (UV/IR)
Distribution of luminous intensity	Radiant Power/ Radiant Flux
Illuminance	Transmittance
Irradiance	Spectral irradiance
Laser power & energy measurements	Spectral radiance
Length	Spectral reflectance
Luminance	Spectral responsivity
Luminous intensity	Wavelength
Luminous flux	Others

5.6.3 Miscellaneous

5.7. Radiological Discipline (Product Groups for Radiological Calibration)

5.7.1 Radiological measurements

Dosimeter	Others
Area Survey Meter	

5.7.2 Radio Isotope/Source Calibration

Radio Isotope	Others

5.7.3 Miscellaneous

5.8. Thermal Discipline (Product Groups for Thermal Calibration)

5.8.1 Temperature

Digital temperature indicators & recorders	Temperature controlled chambers & incubators
Liquid-in-glass thermometers	Temperature controlled freezers & refrigerators
Optical pyrometers	Temperature measurement
Platinum resistance thermometers	Thermocouples
Radiation pyrometers	Others
Temperature controlled autoclaves, ovens & furnaces	

5.8.2 Specific heat & Humidity

Absolute humidity	Humidity measuring devices	Specific heat of liquids
Dew point	Relative humidity	Specific heat of solids
Environmental chambers	Specific heat of gases	Others

5.8.3 Miscellaneous

6. Introduction of product group under testing

TESTING FIELD

6.1 Biological Discipline (Product Groups for Biological Testing)

6.1.1 Animal Food & Feed

Animal Nutrition Supplements	Guar Meal
Aquaculture feed additives	Oil Cake
Aquaculture feed ingredients	Pet Foods
Cotton seed cake	Poultry feed additives
Fish, Shrimps, Prawn feed	Rapeseed Meal
Groundnut meal	Others

6.1.2 Antimicrobial activity Products

Adhesives Glues and Sealant	Soaps & Detergents
Fuels and Oils	Textiles & Fabrics
Lubricants	Toys and Other Children's Products
Packaging Materials	Water Miscible Products
Paints and surface coatings	Wood & Wooden Products
Pulp & Paper	Others

6.1.3 AYUSH product

Ayurvedic drugs	Siddha Drugs
Herbal formulations	Unani Drugs
Homeopathic Drugs	Others

6.1.4 Biocides

Algicides	Insecticides
Antiseptics	Sanitizers
Bactericides	Sporicides
Disinfectants	Viricides
Fungicides	Weedicides
Herbicides	Others

6.1.5 Biological Monitoring

Blood alcohol	Interferons
Drugs & Drug Metabolites	Others
Fluoride	

6.1.6 Biological Tests on Other Miscellaneous Test Items

Adhesives Glues and Sealant	Soaps & Detergents
Fuels and Oils	Textiles & Fabrics
Lubricants	Toys and Other Children's Products
Packaging Materials	Wood & Wooden Products
Paints and surface coatings	Others
Pulp & Paper	

6.1.7 Biologically Derived Pharmaceuticals

Enzymes	Recombinant Proteins
Growth factors	Single Cell Proteins (SCP)
Hormones	Vaccines
Monoclonal Antibodies (MABs)	Others

6.1.8 Biopesticides and Biofertilizers

Biopesticides	Biofertilizers
Others	

6.1.9 Cell Culture

Cell permeability test	Others
Purity	

6.1.10 Cosmetics & Essential Oil

Perfumes	Cosmetics
Tooth Paste	Essential Oil
Hygiene products	Others

6.1.11 Drugs and Pharmaceuticals

Antibiotics	Preservative efficacy
Bioassays of Other Products (Other Than Those Products Mentioned Above)	Non-Filterable Preparations Including Ointments
Chemotherapeutic Agents	Pyrogen tests
Drug Intermediates	Raw Materials
Drug Substances (Active Pharmaceuticals Ingredients (API))	Sterility tests
Endotoxins	Synthetic Drugs
Filtrable Solutions & Soluble Preparations	Veterinary Drugs
Immunological Products	Water for Medicinal Purpose and Therapeutic Use
Microbial limit test	Others

6.1.12 Pollution & Environment

Air /surface	Soil
Bio burden Estimation of Classified and non-classified area	Solid waste
Effluents/Waste water	Others
Sewage	

6.1.13 Food and Agricultural Products

Ayurveda Aahar	Food for Infant Nutrition
Cereals and Cereal Products including Bakery Products	Meat & Meat Products, including poultry
Confectionery Products	Dairy Products and Analogues (Except Human Milk)

Non-Alcoholic Beverages other than fruits, vegetable and dairy based	Natural Waxes
Alcoholic Beverages	Sweers, Snacks and Savoury Products
Fats & Oils and Fat Emulsions	Seaweed and Seaweed Products
Edible Salis	Sugar, Jaggery and other sweetening agents
Edible Ices, including Sorbet (ice candy)	Tea, Coffee, Chicory and their Products
Eggs & Egg Products	Tobacco & Tobacco Products
Food Additives, Flavours, Colors, Sweeteners and processing Aids	Fortified Food
Fruits and vegetables and their products including Nuts, Raisins and Seeds	Essential Nutrients Including Vitamins
Hemp Seeds and Seeds Products	Vegan Food
Gelatin and Others Gums	Honey and other bee products
Spices, Herbs, Condiments and others related products	Others

6.1.14 Plant

Plants	Other
Plants Material	

6.1.15 GM (Genetically Modified) Products

Promoter & Terminator Screening	Quantitative Analysis
Qualitative Detection	Others

6.1.16 Industrial Cultures

Cultures for baking and brewing	Rhizobial Cultures
Dairy Starter Cultures	Starter cultures for Effluent Treatment Plant
Mushroom Spawn	Others
Probiotics Cultures	

6.1.17 Marine /Aqua culture Food Products

Artemia & Artemia Products	Oyster
Crab & Crab Products	Prawn & Prawn Products
Fish & Fish Products, including molluscs, crustaceans and echinoderms	Shrimps
Molecular identification of bacterial, fungal, viral pathogens	Others

6.1.18 Medical Accessories & Surgical products

Blood Bags	Hypodermic Needles
Catheter	Tubal Rings
Condoms	Others
Copper T	

6.1.19 Molecular Analysis (Tests for Various Matrices-Human, Plants, Animal, Microbial)

Bacterial Mutagenicity Tests	Genotyping
Bacterial/ fungal/viral Pathogen Detection	Next Gen- Sequencing
Detection of adulterants	Sister Chromatid Exchange Tests
Fragment Analysis	Transformation Assays In Cell culture
Gene Expression /Gene Copy Number	Others
16S rDNA sequencing	

6.1.20 Nutraceuticals & Functional Foods

Carotenoids	Phytoestrogens
Dietary Fibres	Prebiotics
Flavonoids	Probiotics
Fortified Food	Soy Proteins
Food for Special Dietary Use	Others
Food for Special Medical Purpose	

6.1.21 Nutritional Supplements

Health Supplement	Others

6.1.22 Plants and Plant Materials

Identification of Bacterial /Fungal/Viral Pathogens	Others

6.1.23 Residue Analysis

Antibiotic residue analysis by micro assay	Others
Enzyme	

6.1.24 Resistance to Microbial Attack

Electrical Components	Textiles and Fabrics
Leather & Leather Products	Timber and Allied Material
Packaging Materials	Wood and Wood Proc\ducts
Paints and surface coatings	Others

6.1.25 Seed (except GM Testing)

Germination	Others
Purity	

6.1.26 Toxicology

Acute Toxicity (oral, dermal, inhalation)	Mutagenicity (In -vitro)
Ame's test	Skin sensitization test
Cytogenetics	In vitro studies using cell culture/chick embryos
Cytotoxicity	Material mediated Pyrogenicity
Eye irritation test	Hemolytic properties of material (Hemocompatibility) Implantation (bone, muscle, Subcutaneous)
Mucous membrane irritation test	Other
Medical Devices (including surgical devices)	

6.1.27 Veterinary Testing

Specified tests in biochemistry, Haematology, cytopathology, histopathology, serology, parasitology	Others

6.1.28 Water

Packaged Drinking Water	Water for Recreational activities [e.g Swimming, Bathing, Contact water supports, Recreation (non-contact)]
Packaged Natural Mineral Water	Water for boiler Feed
Water for drinking purpose	Reagent Grade Water
Water for Construction Purpose	Water for Pharmaceutical purpose
Water for industrial purpose	Water for Reuse (Flushing, Landscape/Horticulture. Fire Fighting)
Water for irrigation purpose	Others (Specify the category applied and applicable protocol and standard)
Water for Processed Food Industry	

6.1.29 Wild Life Forensic

6.1.30 Miscellaneous

6.2 Chemical Testing (Product Groups for Chemical Testing)

6.2.1 Adhesives

Glues	Polymer based adhesives (Synthetic)
Natural gums	Starch based adhesives
Physical Properties	Others

6.2.2 Animal Food & Feeds

Animal Nutrition Supplements	Guar Meal
Aquaculture feed additives	Oil Cake
Aquaculture feed ingredients	Pet Foods
Cotton seed cake	Poultry feed additives
Fish, Shrimps, Prawn feed	Rapeseed Meal
Groundnut meal	Others

6.2.3 Atmospheric Pollution

Ambient Noise Levels (Excluding vibration) (To be considered under Site Testing only)	Source Noise Levels (Excluding vibration) (To be considered under Site Testing only) (Particular Source to be specified)
Ambient air	Stack emission
Fugitive emission	Vehicle emission
Meteorological Parameters (To be considered under Site Testing only)	Work Environment Manufacturing, Production activities in Industries including activities covered under Factories Act
Process/Vent Emissions	Indoor Air Quality (Indoor environment is considered as room(s): (a) Apartments, houses with living rooms, bedrooms, hobby rooms, kitchens and bathrooms etc.; (b) Workrooms and waiting rooms in public buildings e.g., hospitals,

	schools, kindergartens, sports halls, libraries, restaurants, pubs, theatres, cinemas and other event venues, warehouses, packaging areas, restrooms or Public spaces as malls, airports, service centres etc. but does not include any special places as Clean rooms (Operation theatres, Biosafety areas) (c) Workrooms or workplaces in buildings without manufacturing /production activities e.g. offices, sales rooms, IT Offices, laboratories, meeting rooms, conference halls, canteens, storage areas, repair centres etc.
Automatic Measurement Systems (e.g. Continuous Ambient Air Quality Monitoring Stations (CAAQMS) and Continuous Emission Monitoring Systems (CEMS) (To be considered under Site Testing only)	Others

6.2.4 Ayush Products

Ayurvedic drugs	Siddha Drugs
Herbal formulations	Unani Drugs, Others
Homeopathic Drugs	others

6.2.5 Bio- Stimulant

Botanical extracts, including seaweed extracts	Antioxidants
Bio – chemicals	Anti-transpirants
Protein hydrolysates and amino acids	Humic & fulvic acid and their derivations
Vitamins	Others
Cell free Microbials products	

6.2.6 Building Material

Aggregates	Gypsum & its products
Bitumen& asphalts	Lime
Bricks & pre-casted blocks	Mortars
Cement	Pozzolanic materials
Ceramics	Refractory materials
Concrete	Sand
Construction chemicals	Water-proofing compounds
Fly ash	Others
Stones	

6.2.7 Corrosion tests

Dezincification Tests	Other
Salt Spray Tests	

6.2.8 Cosmetics & Essential Oils

Aromatic chemicals	Herbal based cosmetics
Cosmetics	Intermediates and miscellaneous chemicals for cosmetics
Essential oils and other natural fragrant raw materials	Synthetic essential oils
Fragrances and Indian attars	Others

6.2.9 Drugs & Pharmaceuticals

Capsules	Oral Liquids
Chemical Methods	Oral Powders
Creams	Parenteral Preparations
Drug Substance (API)	Pharmaceutical Aid (Raw material except API)
Drops	Physical and Physiological Methods
Gels	Tablets
Hormones	Vitamins
Ointment	Others
Water for medicinal and therapeutic use	

6.2.10 Explosives & Pyrotechnics

Ammunitions	Physical Properties
Explosive chemicals & allied materials	Pyrotechnics
Industrial explosives & associated materials	Others

6.2.11 Fertilizers

Bio-Fertilizer	Macronutrients
Fertilizer Mixtures	Micronutrients
Fortified Fertilizers	Nitrogenous Fertilizers
Phosphatic Fertilizers	Liquid Fermented Organic Manure
Potassic Fertilizers	Others
Fermented Organic Manure	

6.2.12 Fire Fighting Equipment & Accessories

Aqueous film forming foam concentrates	Foam Concentrates
Dry Chemical Powder	Others

6.2.13 Food & Agricultural Products

Ayurveda Aahar	Dairy products and Analogues (except Human Milk)
Cereals and cereal products including Bakery Products	Natural waxes
Confectionery Products	Prepared foods
Non-Alcoholic Beverages other than fruits, vegetable and dairy based	Salts and Salt Substitutes
Alcoholic Beverages	Sugar, Jaggery and other sweetening agents
Egg & Egg Products	Tea, Coffee, Chicory and their products
Fats and Oil and Fat Emulsions	Sweets, Snacks and Savoury Products

Food Additives, Flavours, Colors, Sweeteners and processing Aids	Tobacco & tobacco products
Fruits and vegetables and their products including Nuts, Raisins and Seeds	Fortified Food
Hemp Seeds and Seeds Products	Essential Nutrients Including Vitamins
Gelatin & other gums	Vegan Food
Spices, Herbs, Condiments and other related products	Meat & meat products including poultry
Honey and other bee products	other
Food for Infant Nutrition	

6.2.14 Packaging Materials

Metallic Packaging Materials	Textile Packaging Materials
Paper Packaging Materials	Glass Packaging Materials
Plastic Packaging Materials	Wooden and Plywood Packaging Materials
Laminates	Bulk Containers (Intermediate/Flexible Intermediate)
Adhesive Packaging Materials	Others

6.2.15 Plant

Plants	Other
Plants Material	

6.2.16 Gases

Compressed Natural Gas (CNG)/ Piped Natural Gas (PNG)	Gases for medical use and diving
Industrial Gases	Reference Gases & Mixtures
Liquefied Gases	Others

6.2.17 Glass

Clear glass	Textured or pattern glass
Laminated Glass	Tinted glass
Reflective Glass	Wired Glass
Stain Glass	Others

6.2.18 Hazardous & Restricted Chemicals

Automatic dispensers	Power tools
Computing & communications equipment	Prints
Consumer electronics	Small household appliances
Large household appliances	Textile & Textile products
Leather products	Toys and sports equipment
Lighting: lamps, lighting fixtures, light bulbs	Zippers
Paints	Others
Plastics & other polymeric products	

6.2.19 Industrial & Fine Chemicals

Alcohols & Alcohols based Chemical	Chemicals used in Photographic Industry
Bleaching Earth / Activated Bleaching Earth	Chemicals used in Refrigeration industry
Chemical used in Rubber Industry	Disinfectants
Chemical used in Textile Industry	Electroplating Chemicals
Chemicals used in Agriculture	Inorganic Chemicals
Chemicals used in Electronic industry	Organic Chemicals

Chemicals used in Leather Industry	Others

6.2.20 Inks, dyes & pigments

Duplicating inks	Printing inks
Dye intermediates	Synthetic dyes
Inorganic pigment powder & pastes	Writing inks
Natural dyes & colouring materials	Others
Organic pigment powder & pastes	

6.2.21 Lac & Lac Products

Lac	Others
Lac products	

6.2.22 Leather

Finished leather	Semi-finished leather
Leather accessories	Synthetic leather
Leather products	Others

6.2.23 Lubricants

Aviation lubricants	Oils & greases
Insulation oils	Solid lubricants
Lubricant additives	Others
Microcrystalline wax	

6.2.24 Marine and Aqua culture Products

Artemia & Artemia Products	Oyster
Crab & Crab Products	Prawn & Prawn Products
Fish & Fish Products, including molluscs, crustaceans, and echinoderms	Shrimps
Others	

6.2.25 Medical Devices

Implants (non-electric)	In vitro regents
Consumables	Surgical instruments

6.2.26 Metallic coatings & treatment solutions

Anodizing solutions	Metallic coatings
Conversion coatings	Plating solutions
Metal finishing materials	Others

6.2.27 Metals & Alloys

Alloy steel	Precious metals
Aluminium & its alloys	Rare earth alloys
Amalgam	Special Steel
Carbon Steel (low carbon, medium carbon & high carbon steel)	Stainless steel
Chromium & its alloys	Tin and tin alloys
Cobalt & its alloys	Titanium & titanium alloys
Copper & its alloys	Tool steel

Ferro-alloys	Tungsten & its alloys
Lead & lead alloys	Zinc & Zinc alloys
Magnesium & its alloys	Others
Nickel & its alloys	

6.2.28 Nutraceuticals & Functional Foods

Carotenoids	Phytoestrogens
Dietary Fibers	Prebiotics
Flavonoids	Probiotics
Fortified Food	Soy Proteins
Food for Special Dietary Use	Others
Food for Special Medical Purpose	

6.2.29 Nutritional Supplements

Health Supplements	Others

6.2.30 Ores & Minerals

Alkali Metal Ores	Gypsum	Mineral for refractories
Aluminium Ores	Iron ores	Mineral sands
Barium ore	Lead ores	Minor elements
Chromium ores	Limestone & dolomite	Molybdenum Ores
Cobalt ore	Manganese ores	Nickel ores
Copper ores	Mercury	Precious metals ores
Gem & semi-precious stones	Mercury ore	Radioactive metals ores
Geochemical samples for trace elements	Mineral for insulation materials	Rare metals ores
Rock phosphate	Titanium ores	Others
Silica sands	Tungsten ores	
Tin ores	Zinc ores	

6.2.31 Paints & Surface Coating

Drying oils	Powder coatings
Gums, driers & paint removers	Resin coatings
Paints & enamels	Solvents & thinners
Physical Properties	Varnishes
Pigments & extenders	Others
Polishes	

6.2.32 Paper and Pulp

Paper	Pulpwood
Paper board	Others
Pulp	

6.2.33 Pesticide Formulations

Aqueous Capsule Suspensions (CS)	Oil based Suspension Concentrates (OD)(Oil Dispersion)
Aqueous Suspension Concentrates (SC)	Oil Miscible Liquids (OL)
Aqueous Suspo-Emulsions (SE)	Powders for Dry Seed Treatment (DS)
Dispersible Concentrates (DC)	Soluble Concentrates (SL)
Dustable Powders (DP)	Solutions for Seed treatment (LS)

Emulsifiable Powders (EP)	Technical Concentrates (TK)
Emulsifiable Concentrates (EC)	Ultra-Low Volume Liquids (UL)
Emulsifiable Granules (EG)	Vaporizing Mats (MV)
Emulsions for Seed Treatment (ES)	Water Dispersible Granules (WG)
Emulsions, Oil in Water (EW)	Water Dispersible Powders for Slurry Seed Treatment (WS)
Granules (GR)	Water Dispersible Tablets (WT)
Liquid Vaporizers (LV)	Water Soluble Granules (SG)
Long lasting insecticidal NETS or NETTING(LN)	Water Soluble Powders (SP)
Micro- Emulsions (ME)	Water Soluble Powders for Seed Treatment (SS)
Mixed Formulations of CS and EW(ZW)	Water Soluble tablets (ST)
Mixed Formulations of CS and SC(ZC)	Wettable Powders (WP)
Mosquito Coils (MC)	Tablets for Direct Application (DT)
Suspension Concentrates for Seed Treatment (FS)	Others

6.2.34 Petroleum and Products

Aviation fuels	Petroleum feed stocks
Crude petroleum	Petroleum products
Liquefied / compressed gases	Waxes and jellies
Petrochemicals, Petroleum solvents	Others
Petroleum additives	

6.2.35 Plastic & Resins

Plastic films	Resin
Plastics & polymers	Others
Raw materials	

6.2.36 Pollution & Environment

Effluents toxicity (Bioassay only qualitative- 90% survival of fish after 96 hours in 100 percent effluent)	Wastes (Liquid/Slurry/Sludge/Solid/Semi-Solid/Leachate)
Municipal Solid wastes	Waste Water (Effluents/Sewage treated or untreated)
Soil/ Sediments	Others
Used/ Waste oil	

6.2.37 Residues and contaminants in Food and Agricultural Products

Antibiotics	Poly Chlorinated Biphenyl
Biotoxins	Polycyclic aromatic hydrocarbons
Chlorinated dioxins & dibenzofurans	Polyhalogenated biphenyls
Halogenated hydrocarbons	Heavy and other metal elements
Histamine	Residue (Pesticides) and contaminants (Trace metals) in organic plant-based products
Mycotoxins	Residue (Pesticides) and contaminants (Trace metals) in organic animal-based products
Naturally occurring toxic substances	Residue (Pesticides) and contaminants (Trace metals) in organic aqua culture products

Pesticides	Residue (Pesticides) and contaminants (Trace metals) in proprietary food products
Phenols	Others

6.2.38 Residues and contaminants in Water

Antibiotics	Poly Chlorinated Biphenyl
Chlorinated dioxins & dibenzofurans	Polycyclic aromatic hydrocarbons
Halogenated hydrocarbons	Polyhalogenated biphenyls
Mycotoxins	Trace metal elements
Pesticides	Others
Phenols	

6.2.39 Rubber & Rubber Products

Hard rubber / ebonite Rubber	Rubber vulcanizates
Latex goods	Synthetic rubber
Natural / synthetic Latex	Textile rubber composite
Natural rubber	Thermoplastic elastomers
Rubber compound	Others
Rubber Products	

6.2.40 Soap detergent & Toiletries

Detergent	Wetting & Emulsifying agent
Soaps	Others
Toiletries	

6.2.41 Soil and Rock

Soil	Others
Rock	

6.2.42 Solid Fuels

Biomass pellets	Coal tar/Bitumen
Briquettes	Coke
Charcoal	Oil Shale
Coal	Others

6.2.43 Textile

Agro-textiles	Industrial Textiles
Automotive textiles	Made-ups
Carpet & rugs	Medical textile
Domestic Textiles	Protective Textiles
Fibre & filaments	Sports textiles
Finished fabric	Technical textiles
Garments & Apparels	Terry Fabrics & its products
Geo-textiles	Yarns & chords
Grey Fabrics	Others

6.2.44 Warfare Chemicals

Blister Agents	Potential CW Agents
Blood Agents	Psychotomimetic Agents
Choking Agents	Riot Control Agents
Mustard Agents	Toxins

Nerve Agents	Others

6.2.45 Water

Water for Construction purpose	Water from purifiers (Performance requirements for both input and output)
Water for Drinking purpose	Water for Boiler Feed
Water for Irrigation purpose	Reagent Grade Water
Packaged Drinking Water	Water for Pharmaceutical purpose
Packaged Natural Mineral Water	Water for Reuse (Flushing, Landscape/Horticulture. Fire Fighting)
Water for Recreational activities [e.g Swimming, Bathing, Contact Water Supports, Recreation (non-contact)]	Others (Specify the category applied and application protocol and standard)

6.2.46 Miscellaneous

6.3 Electrical Testing (Product Groups for Electrical Testing)

6.3.1 Bridges & Potentiometers

AC bridges	DC potentiometers
AC potentiometers	Ratiometers
DC bridges	Others

6.3.2 Cables and Wires

Automobile cables	Optical Fibre Cables (For TEC Designation purpose, CAB to apply for Optical Fibre Cables under the group Telecommunication Equipment & Materials)
Bare cables & wires	Paper insulated cables
Elastomeric cables	Power cables
Insulated cables & wires	Thermo-couple compensating cables
Joints & terminations of polymeric & power cables	Welding cables
LF wires & cables with PVC insulation & sheath	Others

6.3.3 Capacitors

Capacitance attenuators	Shunt capacitors
Motor capacitors	Surge protection capacitors
Precision capacitors	Others
Series capacitors	

6.3.4 Cells and Batteries

Battery for e-vehicles	Lead acid batteries
Button cells	Nickel cadmium batteries
Dry batteries	Lithium Ion Batteries
Heavy duty batteries	Others

6.3.5 Conductors and Conducting Materials

Aluminium conductors	Paper covered conductors
Copper conductors	Winding wires
Enamelled / Insulated wires	Others

6.3.6 Electrical Appliances

Air Conditioners	Electric stoves & hot plates
Electric & steam irons	Electric toasters
Electric call bells & buzzers	Flexible heating pads
Electric celling fans	Hair dryers
Electric coffee makers	Microwave ovens
Electric food mixers & juicers	Refrigerators, food freezers & ice makers
Electric grills & roasters	Vacuum cleaners & suction appliances
Electric kettles & jugs	Washing machines
Electric shavers	Water heaters
Electric steam cookers	Others
Baking ovens	

6.3.7 Electrical Indicating & Recording Instruments

Ammeters	Power factor meters
Digital recorders	Smart Meters
Earth resistance tester	Transducers
Electricity meters	Varmeters
Galvanometers & null detectors	Voltmeters
Graphic recording instruments	Watthour meters (other than smart meters)
Insulation resistance tester	Watt meters
Ohmmeters	Others
Phase meters	

6.3.8 EMI / EMC Test Facility

Burst Immunity Test	Pulse Magnetic Field Immunity Test
Conducted Emission Test	Radiated Emission Test
Conducted RF Susceptibility Test	Radiated Magnetic Field Emission Test
Damped Oscillatory wave Immunity Tests	Radiated Radio Frequency Disturbances Power Test
Electrical Fast Transient (EFT)	RF Radiated Susceptibility Test
Electrostatic Discharge Immunity Test	Voltage dips, short interruption & voltage variations Immunity Test
High Energy / Telecom Surge Immunity Test	Voltage Fluctuation & Flicker Test
Impulse Voltage withstand Test	Others
Power Frequency Magnetic Field Immunity Test	

6.3.9 Energy Efficiency of Domestic Electrical Appliances

Ceiling Fans	Room Air Conditioner (Cassettes, Floor Standing)
Direct Cool Refrigerator	Room Air Conditioners
Distribution Transformer	Tubular Fluorescent Lamp
Electric Geysers	Variable Capacity Inverter Air conditioners
Frost Free Refrigerators	Washing Machine
LPG- Stove	Others

6.3.10 Energy Efficiency of Commercial / Industrial Appliances

Chiller	Light Commercial Air Conditioner
Deep freezers	Pump Sets
DG Sets	Solar Water Heater
Diesel Engine Driven Mono-set Pumps	Others
Induction Motors	

6.3.11 Environmental Test Facility

Acceleration test	Ingress protection test
Bump test	Salt mist test
Cold test	Sealing test
Damp heat test	Seismic test
Driving rain	Soldering test
Dry heat test	Storage test
Dust test	Vibration test
Glow wire	Others
Impact test	

6.3.12 Frequency & Time Measuring Instruments

Clocks & watches	Tachometers
Counters	Time interval meters
Frequency meters	Wave meters
Stop watches	Others

6.3.13 High Voltage Test Facility

Alternating voltage test	Partial discharge test
Artificial pollution test	Radio interference voltage test
Dielectric test	Switching impulse voltage test
Direct voltage test	Wet test
Impulse current test	Others
Lightning impulse voltage test	

6.3.14 Inductors, Transformers & Accessories

Auto transformers	Pulse transformers
Current transformers and Distribution transformers (Note: For Standard & Labelling Program of BEE, laboratory to apply under the group of Energy Efficiency)	Ratio transformers
Inductors	Reactors
Neutral earthling transformers	Voltage transformers
Phase shifting transformers	Transformers Accessories (Pressure Relief Devices, Protection Circuits, Pressure-Vacuum Gauges, Winding Temperature Gauge, Transformer Cooling Fans, High Voltage Bushing, Low Voltage Bushing, De-energized Tap Changer, Breather of Transformer, Conservator Tank, Explosion Vent, Radiator, etc.)
Power transformers	Others

6.3.15 Insulating Materials & Insulators

Antistatic materials	Polymer films
Ceramics	Polymers for cable insulation & sheath
Electrical grade paper	Rubber products
Insulating Oils	Sleeving
Insulating tapes	Transformer oils
Insulating varnish	Others
Laminates	

6.3.16 Lamps, Luminaires and accessories

Emergency lights	Industrial luminaires	Road & street light luminaires
Flood lights	Lamp holders	Sodium vapor lamps
Fluorescent lamps	Mercury vapor lamps	Starters, ballasts & capacitors
General purpose luminaires	Portable luminaires	Tungsten filament lamps
Halogen lamps	Recessed luminaires	Others

6.3.17 Magnetic Materials

Flux meters	Magnets, solenoids & Helmholtz coils
Magnetic sheets	Others

6.3.18 Miscellaneous

AC / DC transfer instruments	others
Plastic materials & products	

6.3.19 Power System and Stabilizers

Stabilized power supplies (AC & DC)	Solar Inverters
Servo operated voltage stabilizers (AC)	Others
Uninterrupted power systems (UPS)	

6.3.20 Resistors, resistance boxes & potential dividers

AC shunts	Precision resistors
Conductance boxes	Resistance boxes
DC shunts	Volt ratio boxes
Potential dividers	Others

6.3.21 Rotating Electrical Machines and Accessories

Alternators	Induction motors	Submersible pumps
Centrifugal pumps	Solar Water Pumping Systems	Universal motors
Increased safety motors	Self-priming pumps	Others

6.3.22 Safety Testing Facility

Abnormal operating and fault conditions	Protection against hazardous moving parts
Clearances and creepage distances	Protection from electric shock and energy hazards
Constructional requirements with regard to the protection against electric shock	Protection of equipment users from over voltages on telecommunication networks
Electric shock hazard under normal operating conditions	Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazards in the equipment
Electric strength test	Protection of the telecommunication wiring system from overheating
Heating under normal operating conditions	Provisions for earthing and bonding
Insulation resistance test	Resistance to fire, Touch current and protective conductor current
Temperature rise	Ultraviolet light conditioning test
Mechanical strength	Others
Over current and earth fault protection in primary circuits	

6.3.23 Short- Circuit Test Facility

General tests on HV switchgear & control gear	Synthetic testing of HVAC circuit-breakers
Inductive load switching on HVAC circuit-breakers	Others

6.3.24 Switchgear & Protective Equipment

Circuit breakers & controllers	Switches & isolators
Fuses & fuse links	Time switches
Power system protection relays	Motor Starters
Protection & control relays	Others

6.3.25 Transmission Line Equipment and Accessories

Aluminium conductors	Fuses	Switch gear & control gear
Busbars	Insulators	Transformers & capacitors
Bushings	Isolators & air brake switches	Transmission line spacers / dampers
Circuit breakers	Lightning arrestors	Transmission Tower
Conductor & earth wire accessories	Line traps	Others
Electric power connectors	Metal fittings	

6.3.26 Wiring accessories

Adhesive / Insulating tape	Conduits	Plugs & sockets
Cable trucking & ducting systems	Electronic type fan regulator	Switches
Ceiling roses	Fittings	Others

6.4 Electronics Testing (Product Groups for Electronics Testing)

6.4.1 Audio Equipment

Amplifiers	Microphones
Buzzers & ringers	Others
Loud speakers / Head phones	

6.4.2 Domestic Electronic Appliances & Accessories

AM / FM radio receiver	Microwave ovens
Cassette players / recorders & its components	Picture tubes
CD players / recorders & its components	Static Energy meters (1 Φ and 3 Φ)
DVD players/Blu Ray Players	TV antenna(dish)
Electronic fan regulators	TV tuner/DTH (set-top box)
LCD/LED Display/TV & its components	Others

6.4.3 Electronic Components& Equipment Sub-Assemblies

Attenuators/AD-DA converters	Oscilloscope/Function generator/ signal generator	Semi-conductor devices
Capacitors	Mobile Phone – GSM	Solid State Relays
Connectors	Mobile Phone -CDMA	Switches
Deflection yokes	Mux-demux	Tab / Note pad
Diode	Laminates	Transceivers
Electronic Ballast	Passive components	Transformers (excluding power supply)
Electronic Counters	Plugs (excluding power supply)	Transistor Amplifiers

Filters	Potentiometer	Transistors
Fuses	Printed circuit boards	Inductive Coils
Integrated circuits	Resistors	Others

6.4.4 EMC Test Facility

Burst Immunity Test	Pulse Magnetic Field Immunity Test
Conducted Emission Test	Radiated Emission Test
Conducted RF Susceptibility Test	Radiated Magnetic Field Emission Test
Damped Oscillatory wave Immunity Tests	Radiated Radio Frequency Disturbances Power Test
Electrical Fast Transient (EFT)	RF Radiated Susceptibility Test
Electrostatic Discharge Immunity Test	Voltage dips, short interruption & voltage variations Immunity Test
High Energy / Telecom Surge Immunity Test	Voltage Fluctuation & Flicker Test
Impulse Voltage withstand Test	Others
Power Frequency Magnetic Field Immunity Test	

6.4.5 Environmental Test Facility

Acceleration Test	Impact Test	Seismic Test
Bump Test	Low Air Pressure Test / Altitude Test	Solar Radiation Test
Cold Test	Mechanical Shock Test	Temperature Cycling Test
Composite Temperature & Humidity Test	Mould Growth (Fungus) Test	Thermal Shock Test
Damp Heat (Cyclic) Test	Protection against penetration of dust & water	Tropical Exposure Test
Damp Heat (Steady State) Test	Robustness of Terminations Test	Vibration Test
Driving Rain Test	Salt Mist Test	Others
Drop & Topple Test	Sand and dust Test	
Dry Heat Test	Sealing Test (Gross \ Fine Leak)	

6.4.6 Equipment Used in Clinical Laboratory

Auto Clave	ESR Analyzer	Photometers (Colorimeter)
Cell counter	Hot Air oven	Refrigerator
Centrifuge	Hot Air Sterilizer	Rotary shaker
Cyclomixer	Hot plate	Semi autoanalyzer
Densitometer	Incubators	Sterilizer
Electronic Analytical Balance	Laminar Air Flow Cabinet	Urine analyzer
Electrophoresis system	Microscope	VDRL shaker
ELISA reader	Na, K Analyzer	Water Bath
Others		

6.4.7 IT Equipment

CPU/Disk drives/optical devices/Solid state drives/DIMM/Main board	Printers / scanner/Copier
GPU/USB devices/Wi-Fi Hub/ PCI extension cards	Personal computers / Laptop / Note Book/tablets
Keyboards	Servers
Monitors / VDUs/Modem	Others
Network devices	

6.4.8 Medical Electrical Equipment

ACT Machine	Endoscopy	Pacemaker (External)
Audiometer	EOG Machine	Pachometer
Auto Refractometer	ETO Sterilizer	Patient Monitor
BIPAP Ventilator	Field Analyzer	Perfusion Pump
Blood Filtration Appliance	Fetal Monitor	Pertdish Warmer
Blood Fluid Warmer	Glucometer	Photo and Laser Coagulator
Blood Storage Cabinet	Harmonic Scalpel	Phototherapy Unit
Boyle's Apparatus	Heart-Lung machine	Pneumatic Drill
BP Apparatus	HF Surgical Diathermy	Pressure Chambers for Hyper Baric Therapy
Brain Stimulators	High Pressure Injection Equipment	Pulse Oximeter
Breath Hydrogen (H2) monitor	Hypothermia Appliances	Radiant Heat Warmer
Capnography	Incubator with CO2	Renal Dialysis machine
Cardiopulmonary bypass machine (CPB)	Incubator (Stationary and Portable)	Respirators (Not Manual)
CO2 Monitor	Infusion Pumps	Retinal Camera
Coagulation Analyzer	Intelligent Tourniquet	Shortwave Diathermy
Cold light source	Interferential therapy	Sigmoidoscopy
Cryo Surgical Appliances (Heating Part)	Invasive Arterial Blood Pressure (IBP)	Slit Lamp with Ophthalmoscope
Cryostat	IVF Work Station	Spirometry Devices
CTG Machine	Keratometer	Stadiometer
Daytona	Laser Surgery equipment	Surgical Diathermy
Defibrillator	Lithotripsy (Impulse Apparatus)	Syringe Pump
Dental X Ray	Magnetic Particle Imaging system (MPI)	Test Tube Warmer
Diagnostic Muscular Simulator	Magnetic Resonance Imaging system (MRI)	Therapeutic Ultrasound Device
Dialysis Apparatus	Mammography	Tonometer
Diode Laser. Doppler	Medical Laser Systems	Transcutaneous Electrical Nerve Stimulator
ECG Monitor	Multiparameter Monitor	Tread Mill
Echo Cardiograph	Muscles Stimulator (For Diagnostic and Therapy)	Trivector Dry Bath
ECT machine	Nebulizer	Ultrasonic Diathermy
EEG Machine	Nerve Stimulators	Urine analyzer
Electro and Phonograph (Intra Cardiac)	Noninvasive Blood Pressure	Vascular Infusion System
Electro Cardio Graph Recorder	Nuclear Magnetic Resonance Tomography	VDRL shaker
Electro Myography	Oxygen Concentration Monitor	Ventilator (Adult & Infant)
Electronic Traction	Water Bath	Others
Endoflator	Wax Bath	

6.4.9 Telecommunication equipment (For TEC CAB Designation)

Wire Telephone Equipment	Base Station for Cellular Network	Precision Timing Control
G3 Fax Machine	Compact Cellular Network	PTP PMP Microwave

Modem	Mobile Handset	Mobile Management Entity
Cordless Telephone	PON Family of Broadband Equipment	SGSN or GGSN
ISDN Customer Premises Equipment	Transmission Terminal Equipment	BSC RNC
Private Automatic Branch Exchange	IoT Gateway	Cell Broadcast Centre
HF Radio	Tracking Device	GMLC
Conferencing and Presentation Equipment	Smart Electricity Meter	HLR AUC HSS
Mobile Radio Trunking System	Smart Watch	eNodeB (ITSAR)
Conferencing Equipment	Smart Camera	Mobile Device
VHF UHF Radio System Equipments	Satellite Communication Equipment	IP Router
Equipments Operating in 2.4 GHz and 5 GHz Band	LAN Switch	P-GW/PDN-GW
IP Terminal	Router	UICC
Point of Sale Devices	End Point Device for Environmental Monitoring	IP Router
Media Gateway	Feedback Device	Mobility Management Entity (MME) (ITSAR)
DSL Equipments	Media Gateway	Cryptographic Controls (ITSAR)
Signalling Gateway	Infiband Switch	Wi-Fi CPEs (ITSAR)
Session Border Controller	IP Multimedia Conferencing Equipment	Others
Softswitch	IP Security Equipment	
Repeater for Cellular Network	Optical Fibre Cable	

6.4.10 Miscellaneous Products

AC and DC Drives	Measuring instruments
Anti-static accessories, wrist strap	Opto-electronic components & equipment
Electro-magnetic components & equipment	Photo-voltaic equipment & their Accessories
Electro-mechanical components & equipment	Piezo electric devices
Fire alarm systems	Telephones/EPABX & Fax machines and their Accessories
Franking machines	Transducers
Harness and cables	Others
Lighting equipment, LED display Board Controller	

6.4.11 Power Supplies & Stabilizers

Charge Controller	SMPS power supplies
Inverters	UPS (online/line interactive)
Solar Inverters (Charge controller unit)	Voltage stabilizers (step/servo motor operated)
Power Conditioners	Others
Regulated Power supplies (AC/DC)	

6.4.12 Safety Testing Facility

Abnormal operating and fault conditions	Mechanical strength
Clearances and creepage distances	Over current and earth fault protection in primary circuits
Constructional requirements with regard to the protection against electric shock	Protection against hazardous moving parts
Electric shock hazard under normal operating conditions	Protection from electric shock and energy hazards
Electric strength test	Protection from hazards
Heating under normal operating conditions	Protection of equipment users from over voltages on telecommunication networks
Insulation resistance test	Protection of the telecommunication wiring system from overheating
Temperature rise	Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazards in the equipment
Ultraviolet light conditioning test	Provisions for earthing and bonding
Resistance to fire, Touch current and protective conductor current	Others

6.4.13 Energy Efficiency of Domestic Electronic Appliances

Color TV	Solid State Inverter
Computer (Notebooks/Laptops)	Microwave Oven
Ballast (Electronic/ Magnetic)	LED Lamps
Office equipment's (Printer, Copier, Scanner, MFD's)	Others

6.5 Fluid Flow Discipline (Product Groups for Fluid Flow Testing)

6.5.1 Air & Gases

Air velocity devices (Anemometers & Pitot tubes)	Flow rate measuring meters
Flow metering devices in pipelines	Leak rate of gases
Flow rate controlling valves	Others

6.5.2 Liquids

Flow metering devices in pipelines	Leak rate of liquids
Flow rate controlling valves	Pumps & turbines
Flow rate measurement of corrosive liquids	Others
Flow rate measuring meters	

6.5.3 Miscellaneous

6.6 Forensic Science Testing (Product Groups for Forensic Science Testing)

6.6.1 Biological Sciences

Biology & Serology	Others
DNA Fingerprinting	

6.6.2 Chemical Science

Chemistry	Toxicology
Explosive	Others
Narcotics	

6.6.3 Crime scene Forensic

Crime Scene Forensic	Others

6.6.4 Forensic Electronics & Computer Forensics

Forensic Electronics	Others
Computer Forensics (Digital or Cyber)	

6.6.5 Forensic Psychology

Forensic Psychology	Others

6.6.6 Physical Science

Ballistics	Photography
Finger print	Question document
Physics	Others

6.6.7 Miscellaneous

6.7 Mechanical Testing (Product Groups for Mechanical Testing)

6.7.1 Automotive Components

Bonded Rubber Wheels	Knock Characteristic of Fuel
Complete Vehicle on Chassis Dynamometer	Vehicle emission
Component Testing	Vehicle test for determining scrapping requirement (in Automated Testing Stations)
Internal Combustion Engine	Others

6.7.2 Building, Infrastructure & Construction Materials

Adhesives, Pre-formed Joint Seals, Materials & Fillers	Reinforcement Steel and FRP & Structural Steel
Admixture	Wall, floor, ceiling & Cladding Panels & Shapes
Aggregates	Cement pipe
Ballast	Pre-stressing Materials & Anchorage Components
Bitumen	Reinforced Earth Mixes & RSW Embankment Materials
Bituminous Mix/ Bituminous Macadam/ Dense Bituminous Macadam	Reinforcement - Steel

Bricks, Blocks	Retroreflective Signboards, Cones, RPM & Delineators
Building Lime	Road Marking Materials Hot & Cold Applied, Tapes
Cement	Road Marking Paints (Ready Mixed)
Pulverized fuel Ash	Thermoplastic Road Marking Material
Metakaolin	Prestressing Strands H.T Strands /LRPC Strands
Silica Fume	Anti-Striping Agent
Ultrafine Ground Granulated Blast Furnace Slag	Gypsum Building Plaster (Including Light Weight Premix)
Cement Concrete	Coated/Laminated Gypsum Boards
Coatings, Membrane & Film Forming Materials	Fire resistant Gypsum boards
Coating Material on Reinforcing Steel	Reinforced Gypsum Boards
Concrete, Mortar, Shotcrete, Grout & Epoxy mixes Concrete Mixers	Plain Gypsum Boards
Hot Applied Sealing Compound for concrete	Foundry Sand
Construction Chemicals & Performance Additives	Granular Subbase
Fuel Ash, Fly Ash, Pulverized Bottom Ash & Pond Ash	Macadam
Gypsum Boards, False Ceiling & Cladding Materials	Wet Mix Macadam
Joint Reinforcing Tape, Seals & Modular Joints	APP Membrane
Preformed Fillers for expansion Joints	Refractory Materials
Joint Treatment Materials for Gypsum Board Construction	Stones
Plumbing & drainage fittings	Geo Synthetics
Pozzolanic materials, Slags, Industrial Waste & Ore Residues	Refractory materials, Insulation Profiles & Shapes
Tile adhesive	Tiles
Building Mortar	Grout
Jointing Mortar	Curing Compound
Integral Cement water proofing compound	Solid panel Foam UPVC Door Sutters
Moulded Raised High Density Fibre (HDF) panel Door	Integral Water proofing Compounds for Cement Mortar and Concrete
Concrete Admixtures Cement and Concrete	Mineral wool (Rock wool, Glass wool, Slag wool) & Bonded Mineral Wool-Thermal Insulation
Others	

6.7.3 Heating, Ventilating, and Air Conditioning (HVAC)

Air Conditioners	Cooling Towers
Chillers	Heaters
Condensing Unit	Refrigeration
Coolers	Others

6.7.4 Leather and Leather Products

Finished leather	Leather products
Footwears	Semi-finished leather
Industrial Products	Others

6.7.5 Mechanical Properties of Metals

Copper materials, alloys & products	Other Non-Ferrous metals, alloys & products
Ferrous materials, alloys & products	Welds & welded test specimens
Metal powders & sintered products	Others
Metallic coatings	

6.7.6 Medical Devices

Implants (non-electric)	Surgical Instruments
Consumables	Biomaterials

6.7.7 Metallography Test

Aluminium materials, alloys & products	Metallic coatings
Copper materials, alloys & products	Other Non-Ferrous metals, alloys & products
Ferrous materials, alloys & products	Welds & welded test specimens
Metal powders & sintered products	Others

6.7.8 Noise & Vibration

Mechanical Shock Testing	Dynamic Balancing
Vibration Characteristics of Materials, Components, Assemblies and Structures	Measurement of Insertion Loss Ducts and Mufflers
Vibration Record on Transmission Line	Measurement of Mechanical Vibrations & Performance
Vibration Test on Connection and Relay	Measurement of Noise Reduction of Sound Isolating Enclosures
Others	

6.7.9 Packaging Materials

Metallic Packaging Materials	Textile Packaging Materials
Paper Packaging Materials	Glass Packaging Materials
Plastic Packaging Materials	Wooden and Plywood Packaging Materials
Laminates	Bulk Containers (Intermediate/Flexible Intermediate)
Adhesive and Allied Packaging Materials	Others

6.7.10 Paper & Paper products

Paper	Pulpwood
Paper Board	Others
Pulp	

6.7.11 Performance/Durability/ Safety Test

Domestic and Industrial Appliances (Ex. Gas stove, DG Set, Compressor, Diesel Engine Driven Mono-set Pumps, DG Sets, Pump Sets for the purpose of BEE Standard & Labelling Program)	Scientific or Measuring Equipment
Scanner (non-ionizing)	Others
Industrial Equipment /Instruments/Products	

6.7.12 Plastics and Plastic Products

Decorative laminates	Plastic materials & products
Fibre reinforced plastic products	Plastic pipes and Accessories
Flexible & rigid foams	Plastic sheets
Moulded components	Polymeric Products
Plastic films	Others

6.7.13 Precious Stones

Gemstones	Pearl
Diamond	Others
Studded Jewellery	

6.7.14 Properties of Powder Metallurgical Products

Stainless Steel	Others

6.7.15 Rubber and Rubber Products

Gaskets, seals & packings	Synthetic rubber & products
Industrial belts	Tyres
Natural rubber & products	Others

6.7.16 Soil and Rock

Soil	Rock
Others	

6.7.17 Solar Panel & Accessories

Solar Panel	Others
Accessories for installation of Solar Panel	

6.7.18 Sub Assembly/ Ancillaries/ Accessories

Bearing	Pumps
Compressors	Springs
Cutting & hand tools	Springs & energy absorbing devices
Engines	Threaded fasteners
Lifting gear, chain, wire ropes & strands	Others
Pipes, hoses, valves & fittings	

6.7.19 Textile Materials

Agro Textiles	Geo Textiles	Sports Textiles
Automotive Textiles	Handloom textiles	Technical Textiles
Carpet and Rugs	Industrial textiles	Upholstery fabrics (other than automotive)
Coated fabrics	Jute & its products	Wool & its products
Fabrics (Woven and Non-Woven)	Khadi textiles	Yarns
Fibre ropes & cords	Medical Textiles	Zippers & fasteners
Fibres	Packaging Textiles	Others
Garments and Apparel	Protective Textiles	

6.7.20 Thermal Tests

Ageing Test	Thermal Conductivity
Incombustibility Test	Thermal Shrinkage
Insulating Value	Others

6.7.21 Toys and Sports Goods

Toys	Others
Sports Goods	

6.7.22 Wood and Wood Products

Plyboard	Particle Board
Timber	Wooden Flush Door shutter
Block Board	Others
Medium Density Fibre Board	

6.7.23 Miscellaneous

6.8 Non-Destructive Testing (Product Groups for Non-Destructive Testing)

6.8.1 Building Materials – Reinforced Concrete Structures

Carbonation test	Pile Integrity test
Cover Meter Test	Rate of Corrosion test by LPR (Linear polarization resistance)
Crack width measurement in reinforcement concrete structures	Rebound Hammer Test
Deflection measurement data (Load Test)	Ultrasonic Pulse Velocity Tests
Half Cell Potential difference test	Others

6.8.2 Metals and Alloys

Eddy Current Testing facility	Radiography Testing Facility
Emerging Areas Testing Facility	Ultrasonic Testing Facility
Leak Testing Facility	Under Water Testing Facility
Magnetic Particle Testing	Others
Penetrant Testing Facility	

6.8.3 Miscellaneous

6.9 Photometry (Product Groups for Photometry)

6.9.1 Glasses/ Mirrors

Mirrors	Safety Glass
Reflectors	Others

6.9.2 Light Sources (Electric Lamp)

Color Characteristics	Luminous Flux Output
Initial Rating Test	Others
Life Test	

6.9.3 Luminaires

Ballast Lumen Factor	MHI Value in Lumens
Downward & Upward Light Output Ratio (DLOR/ULOR)	Others
Luminous Intensity Distribution	

6.9.4 Miscellaneous

6.10 Radiological Testing (Product Groups for Radiological Testing)

6.10.1 Biodosimetry

Cytogenetic Dosimetry

6.10.2 Environment (Radioactive contaminants)

Air	Soil, Vegetation, Biota
Air Filters	Wipes, swabs
Liquid effluents	Others
Ores, Minerals & Metals	

6.10.3 Food and Agriculture Products (Radioactive contaminants)

Bakery & Confectionary	Milk & Milk products
Crops & Crops produce	Poultry products
Marine foods	Spices & food ingredients
Meat & Meat products	Others

6.10.4 Radiation Monitors

Area survey instruments	Personnel monitoring dosimeter
Control monitors	Therapy level dosimeter
Environmental radiation monitors	Others
Fixed monitors	

6.10.5 Radiation Sources

Accelerators	Industrial Accelerators
Beam welding equipment	Isotopic sources used in industrial gauges
Brachytherapy	Isotopic sources used in medical brachy therapy
Cesium machines	Medical Accelerators
Cobalt machines	Neutron generators
Diffraction X-ray machines	Simulators
Electron Industrial irradiators	Others

6.10.6 Radiological Equipment and Nucleonic Equipment

Gamma switches	Nucleonic moisture and density gauges
Industrial gamma radiography	Nucleonic weighing machines
Industrial irradiators	Radiography camera
Liquid scintillation counter	RIA counter
Medical gamma camera	Smoke detectors containing sources
Medical spectrometer	Thickness gauges
Nucleonic level gauges	Others

6.10.7 Water (Radioactive Contaminants)

Drinking water	Water for Industrial use
Packaged drinking water	Others
Treated water	

6.10.8 Miscellaneous

6.11 Diagnostic Radiology QA Testing Discipline (Product Groups for diagnostic Radiology QA Testing)

6.11.1 Radiography (X-ray -Fixed Portable, Mobile)

6.11.2 Computed Tomography (CT)

6.11.3 Mammography

6.11.4 Interventional Radiology & Fluoroscopy

6.12 Software & IT System Testing (Product Groups for Software & IT System Testing)

6.12.1 Software Testing

Telecom software/ Protocol	E-Procurement System Software
Embedded systems	Process and control software
Mobile Device and Mobile Applications	Web Application and Website
e-Governance Application and solution Evaluation	Linguistics Software
Gaming Software	Sector specific Software
IOT Block Chain, AI or drone software/ system/ application	Testing & evaluation for regulatory compliance
Data analytics Software	Others
Lottery Software	

7. Categories of Reference Material

Category A: Chemical Composition

Reference materials, Being either pure chemical compounds or representative sample matrices, either natural or with added analytes (e.g. animal fats spiked with pesticides for residues analysis), characterised for one or more chemical or physicochemical property values.

7.1 Metals

7.1.1 Ferrous

Steels	Irons
Carbon steels	White cast irons
Low alloy steels	Ductile irons
High alloy steels	Gases in metals
Cast steels	Speciality steels

7.1.2 Nonferrous

Aluminium alloys	Copper base alloys
Lead base alloys	Tin base alloys
Brasses	Bearing alloys
Titanium base alloys	Zirconium base alloys
Gases in metals	

7.1.3 Special Alloys

7.1.4 Refractory Metals and Alloys

7.1.5 Rare Earth Metals

7.1.6 High Purity Metals

Solid forms	Spectrochemical materials
Spectrochemical solutions	

7.2 Inorganic Reference Materials

7.2.1 Ores and Minerals

7.2.2 Cements, Clays and Related Products

7.2.3 Ceramics, Glasses and Refractory Oxides

Carbides	Glasses

7.2.4 Agricultural Chemicals and Fertilizers

7.2.5 Solid Fuels

Coal and coke	Mineral content
Major elements	Trace elements

7.2.6 Pure Chemicals

Stoichiometry standards (primary standards, secondary standards, working standards)	Chromatography standards
Pharmaceutical materials	Cosmetic materials

7.2.7 Stable Isotope Materials

7.3 Organic Reference Materials

7.3.1 Pure Organic Compounds

Compounds for elemental analysis	Compounds for molecular weight
Chromatography standards	Illicit drugs and their metabolites - (See also A8 Forensic Reference Materials)
Illicit drugs	Amphetamine
Delta-9-THC and other cannabinoids	Methylamphetamine
3,4-methylenedioxyamphetamine	3,4-methylenedioxy-methylamphetamine
3,4-methylenedioxyethylamphetamine	Diacetylmorphine
Morphine	Cocaine
Lysergic acid diethylamide and isomers	Therapeutic drugs
Veterinary drugs	Steroids
Pesticides, herbicides, acaricides, etc.	Metabolites of any of the above
Priority pollutants PCBs, PAHs, etc.	Fine chemicals
Pharmaceutical materials	Cosmetic materials
Isotopically labelled compounds	

7.3.2 Agricultural Materials, Fertilizers

7.3.3 Foodstuffs

Proximate analysis	Nutritional properties
Vitamins	Toxins Animal origin Plant origin Other biological origin
Other food additives Antioxidants Emulsifiers	Trace elements
Trace organics Pesticide residues Antibiotic residues Other organic contaminants	

7.3.4 Plastics and Rubbers

Hardness	Natural rubber content
Identity Copolymers Plasticisers Vulcanising agents Blowing agents Antioxidants Fillers	

7.3.5 Petroleum Products

Fuels and lubricants Lead Vanadium Nickel	Transformer oils Moisture PCBs
Heat exchange fluids Moisture PCBs	

7.3.6 Vegetable Oils and Fats

Fatty acid profile	Triglyceride composition

7.4 Environmental Reference Materials

7.4.1 Soils and Sludges

Trace elements	Trace organics
Mineral content	TCLP leachate

7.4.2 Ashes

Fly ash from coal and coke	Incinerator ash

7.4.3 Waters

Potable water	Fresh water Major elements Trace elements Other analytes
Routine analytes	Sea water Major elements Trace elements Other analytes
Trace elements	Industrial waste water Routine analytes Trace elements Organic pollutants Other analytes
Organic pollutants	Treated sewage Routine analytes
Other analytes	

7.4.4 Plant Material

Trace elements	Mineral content

7.4.5 Marine

Fish - trace elements	Molluscs - mineral content
Plankton - organics	

7.4.6 BOD Reference Compounds

7.4.7 Miscellaneous Biological Materials (e.g. Human hair)

7.5 Health and Industrial Hygiene

7.5.1 Clinical Laboratory Materials

7.5.2 Ethanol Solutions

7.5.3 Toxic Substances in Urine

Toxic metals	Mercury
Fluoride	

7.5.4 Drugs of Abuse in Urine

7.5.5 Drugs of Abuse in Hair

7.5.6 Materials on Filter Medi

7.5.7 Trace Elements in Blank Filters

7.5.8 Lead in Paint (Powder and Sheet forms)

7.5.9 Respirable Silica

7.6 Engine wear materials

7.6.1 Metallo-Organic Compounds

7.6.2 Wear Metals in Oil

7.7 Analysed Gases

7.7.1 Gas Mixtures (and High Purity Gases)

7.7.2 Trace Volatile Organic Compounds

7.8 Forensic Reference Materials

7.8.1 Ethanol Reference Standards

Ethanol	Ethanol, aqueous solutions containing 0.050, 0.150, 0.250 g/100mL

7.8.2 Drugs (individually named) and Metabolites*

In whole human blood and urine (*metabolites to include glucuronides).

See also A3.1 Pure Organic Compounds.

7.8.3 Glasses

Bottle	Automotive
Window	Spectacle

7.8.4 Paints

Automotive	Architectural

7.8.5 Accelerants

Flammable liquids and residues there of

7.8.6 Explosives and Primers

7.8.7 Gunshot Residues

7.8.8 Noxious Substances

Crowd control agents	o-chlorobenzalmalononitrile (CS)
capsaicin	chloroacetophenone (CN)

7.8.9 Examination Documents

7.9 Ion Activity

7.9.1 pH Standards

7.9.2 Ion Selective Electrode Calibrants

7.9.3 Conductivity Standards

7.9.4 Buffer Systems

8. Category B: Biological and Clinical Properties

Materials similar to Category A, but characterised for one or more biochemical or clinical property values.

8.1 General Medicine

8.1.1 Human Serum Materials (powder and solution forms)

8.2 Clinical Chemistry

8.2.1 Proteins

8.2.2 Apolipoproteins

8.2.3 Enzymes

8.2.4 Hormones

8.2.5 Trace Elements

Lead and cadmium

8.2.6 Routine Blood Analytes like urea, uric acid, glucose etc.

8.3 Tissue Pathology and Cytology

8.4 Haematology

8.4.1 Blood

8.5 Immunohematology

8.6 Immunology

8.7 Parasitology

8.8 Bacteriology and Mycology

8.8.1 Reference cultures

8.8.2 Antibiotics

8.9 Virology

8.10 Other Biological and Clinical Reference Materials

8.11 Forensic Reference Materials

Purified DNA of known and continuing genetic composition	Human, primate and animal blood
Animal hairs	Fibres

9. Category C: Physical Properties

Materials characterized for one or more physical property values, e.g. melting point, viscosity, density.

9.1 Reference Materials with Optical Properties

9.1.1 Optical Rotation

9.1.2 Refractive Index

9.1.3 Spectral Absorbance

Visible	Ultraviolet
Infrared	

9.1.4 Specular Reflectance

9.1.5 Colour

White reference material (opal glass)	Ceramic tiles

9.2 Reference Materials with Electrical and Magnetic Properties

9.2.1 Dielectric strength

9.2.2 Resistivity

9.2.3 Magnetic susceptibility

9.3 Reference Materials for Frequency Measurements

9.4 Reference Materials for Radioactivity

9.4.1 Radiation Dosimetry

9.4.2 Radiopharmaceuticals

9.4.3 Labelled Compounds

9.4.4 Natural Matrix Materials

9.4.5 Carbon-14 Dating

9.5 Reference Materials for Thermodynamic Properties

9.5.1 Calorimetry

9.5.2 Thermal Conductivity

Metals	Pyrex glass
Resin-bonded fibre board	

9.5.3 Vapour Pressure

9.5.4 Thermal Expansion

9.5.5 Thermal Resistance

9.5.6 ITS-90 Temperature Fixed Point

9.5.7 Curie Point

9.5.8 Boiling Point

9.5.9 Melting Point

9.5.10 Thermal Analysis Standards

9.6 Reference Materials for Physicochemical Properties

9.6.1 Density

9.6.2 Viscosity

9.6.3 Surface Tension

9.6.4 Molecular Weight

9.7 Reference Materials for Fibre Identification

9.7.1 Natural Fibres

Animal hairs	Plant fibres

9.7.2 Synthetic Fibres

Organic polymers	Inorganic fibres

9.7.3 Asbestos Fibres

Crude fibres	Mounted specimens for fibre counting

9.8 Reference Materials for Other Properties

9.8.1 Shear Testing of Powders

9.8.2 Minerals for X-ray Diffraction

10. Category D: Engineering Properties

Materials characterized for one or more engineering property values (e.g. hardness, tensile strength, surface characteristics, etc.).

10.1 Surface Finish

10.1.1 Surface Roughness

10.1.2 Corrosion

10.1.3 Abrasive Wear

10.1.4 Properties of Films and Surfaces

Nominal thickness	Beta particle backscattering
X-Ray fluorescence	Ion beam sputtering

10.2 Sizing

10.2.1 Particle Size

• Particulate materials	• Latex sphere suspensions

10.2.2 Surface Area

10.3 Non-Destructive Testing

10.3.1 Dye Penetrant Test Blocks

10.3.2 Artificial Flaw for Eddy Current

10.3.3 Magnetic Particle Inspection

10.4 Hardness

10.4.1 Hardness Standardised Block (Rockwell/ Vickers/ Brinell)

10.4.2 Microhardness

10.5 Impact Toughness

10.5.1 Charpy Impact Standardised Blocks (Notches U/V/ Keyhole)

10.5.2 Izod Impact Standardised Block

10.6 Tensile Strength

10.7 Elasticity

10.8 Creep

10.9 Fire Research

10.9.1 Surface Flammability

10.9.2 Smoke Density

11. Category E: Miscellaneous

11.1 Others