

Laboratory Bureau Veritas Consumer Products Services (India) Pvt. Ltd., AKR Tech Park, Ground Floor, C Block, Survey No. 112, Krishna Reddy Industrial Area, 7th Mile, Hosur Road, Bengaluru, Karnataka

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-6092

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Last Amended on 03.06.2019

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
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CHEMICAL TESTING

I.	TEXTILE (WOVEN & NON WOVEN)			
1.	Garment/Fabric	Colorfastness to laundering-Home & commercial: Accelerated	AATCC 61	Qualitative (Grade 1 to Grade 5)
		Domestic washing and drying procedures for textile testing	ISO 3759 ISO 5077/ ISO 6330 Amd. 1 ISO 3759 BS EN ISO 6330 Amd. 1 ISO 3759 DIN EN ISO 6330	(-)50 % to (+)50 %
		Water Repellency: Spray test	AATCC 22 ISO 4920 BS EN ISO 4920	Qualitative (Grade 1 to Grade 5) (Upto 100)
		Skewness change in fabric and garment twist resulting from automatic home launderings	AATCC 179 ISO 16322-1 ISO 16322-2 Cor.1 ISO 16322-3	(-)50 % to (+)50 %
		Colour fastness to domestic and commercial laundering-Oxidative bleach response using a non-phosphate reference detergent incorporating a low temperature bleach activator	ISO 105 C09 Amd 1	Qualitative (Grade 1 to Grade 5)

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		Colourfastness to domestic and commercial laundering	ISO 105 C06, BS EN ISO 105 C06	Qualitative (Grade 1 to Grade 5)
		Colourfastness to perspiration	AATCC 15 ISO 105 E04 BS EN ISO 105 E04	Qualitative (Grade 1 to Grade 5)
		Colourfastness to water	AATCC 107 ISO 105 E01 BS EN ISO 105 E01	Qualitative (Grade 1 to Grade 5)
		Colourfastness to Crocking:AATCC crockmeter method	AATCC 8	Qualitative (Grade 1 to Grade 5)
		Colourfastness to crocking:Rotary vertical crock meter method	AATCC 116 ISO 105 X16	Qualitative (Grade 1 to Grade 5)
		Colourfastness to Rubbing	ISO 105 X-12 BS EN ISO 105 X 12	Qualitative (Grade 1 to Grade 5)
		Colourfastness to light	AATCC 16 Option 3	Qualitative (Grade 1 to Grade 5)
		Colourfastness to artificial light:Xenon ARC fading lamp test	ISO 105 B02 BS EN ISO 105 B02	Blue Wool Scale Qualitative (Standard Rating 1 to 8)
		Colourfastness to chlorinated water (chlorinated pool water)	ISO 105 E03 BS EN ISO 105 E03 AATCC 162	Qualitative (Grade 1 to Grade 5)
		Fibre Analysis(qualitative) Fiber Analysis(Quantitative)	AATCC 20 AATCC 20A (Part 1 to 9 ISO 1833 (Part 1 to 12, 18 BS 4407 (Part 1 to 12 & 18	Qualitative (Present or Absent) 0.1 % to 100 %

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		Colorfastness to Dry-Cleaning	AATCC 132 ISO 105 D01 BS EN ISO 105 D01	Qualitative (Grade 1 to 5)
		Colorfastness to Sea-Water	AATCC 106 ISO 105 E02 BS EN ISO 105 E02	Qualitative (Grade 1 to 5)
		Colourfastness to Non-Chlorine bleach	AATCC 172	Qualitative (Grade 1 to 5)
		Colourfastness to bleaching (Hypochlorite)	ISO 105 N01 BS EN 5 N01 DIN EN 5-N01	Qualitative (Grade 1 to 5)
		Colourfastness to saliva & perspiration	DIN 53160-1	Qualitative (Grade 1 to 5)
		Colourfastness to Ozone in the atmosphere under low humidity's	AATCC 109 ISO 105 G03	Qualitative (Grade 1 to 5)
		Colourfastness to Burnt Gas Fumes	AATCC 23 ISO 105 G02:	Qualitative (Grade 1 to 5)
		Color Fastness to Heat:Hot Pressing	AATCC 133 EN ISO 105 X11 ISO 105 X11 BS EN ISO 105 X11	Qualitative (Grade 1 to 5)
		Color Fastness to Dye Transfer In Storage (Fabric to Fabric)	AATCC 163	Qualitative (Grade 1 to 5)
		Quick Methods for Colorfastness to Chlorine and Non-Chlorine Bleach	AATCC/ASTM TS-001	
		Color Fastness to Perspiration & Light	AATCC 125	Qualitative (Grade 1 to 5)
		Color Fastness to Perspiration & Light	ISO 105 B07 BS EN ISO 105 B07	Qualitative (Grade 1 to 5)

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		Oil repellency-hydrocarbon resistance test	AATCC 118	Upto grade:8
		Soil Release-Oily stain release method	AATCC 130	Qualitative (Class 1 to Class 5)
		Aqueous liquid repellency-water/Alcohol solution resistance test	AATCC 193	Upto grade 8
		Dimensional Stability to Steam	BS 4323 ISO 3005	(-) 5%to +5%
2.	Textile and Textile Products	pH value of Water Extract	CPSD-AN-00025-MTHD.V14 5 May . ISO 3071 CPSD-AN-00026-MTHD.V11 21 April AATCC 81 CPSD-AN-00027-MTHD.V7 7 Oct . EN1413: & EN420:2003 +A1: CPSD-AN-00028-MTHD.V13 26 June . GBT7573:	1 to 14
II.	LEATHER			
1.	Leather & Footwear	Colourfastness to Perspiration	BS EN ISO 11641 Ref. SATRA TM 335	Qualitative (Grade 1 to Grade 5)
		Colourfastness to Water	BS EN ISO 11642 Ref. SATRA TM 335	Qualitative (Grade 1 to Grade 5)

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		Colourfastness to Dry Cleaning Solution	BS EN ISO 11643	Qualitative (Grade 1 to Grade 5)
		Colourfastness to Machine Washing	BS EN ISO 15702	Qualitative (Grade 1 to Grade 5)
		Colourfastness to Rubbing (Veslic)	BS EN ISO 11640 BS EN ISO 17700-A BS EN 13516-A Ref. SATRA TM 173	Qualitative (Grade 1 to Grade 5)
		Colourfastness to Rubbing (Crock meter)	ASTM D 5053:2003 Ref. SATRA TM 167	Qualitative (Grade 1 to Grade 5)
		Colourfastness to Rubbing (Circular)	BS 1006:1990 BS EN ISO 17700-B BS EN 13516-B Ref. SATRA TM 08	Qualitative (Grade 1 to Grade 5)
		Colourfastness to Water Spotting	BS EN ISO 15700 Ref SATRA TM 185	Qualitative (Grade 1 to Grade 5)
		Colourfastness to PVC Migration	BS EN ISO 15701	Qualitative (Grade 1 to Grade 5)
III.	HAZARDOUS & RESTRICTED CHEMICALS			
1.	Textile and Textile Products (Non Metal Children products)	Lead in substrate	CPSD-AN-00196-MTHD. V27-21 Feb CPSC-CH-E1002-08.3 15 ASTM F 2617-15, ASTM E 1613	3 mg/kg to 5000 mg/kg
2.	Textile and Textile Products (Children's metal products including Jewellery)	Lead in substrate	CPSD-AN-00185 MTHD.V27 21 Feb CPSC-CH-E1001-08	10 mg/kg to 500000 mg/kg (0.001% to 50%)

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3.	Textiles and Textile Products	Total Heavy Metal Content (Cr, As, Sn, Cu, Fe, Mn, Tl, Ni, V, Zr, Ba, Sb, Se, Co, Zn, Pb, Cd, Hg)	CPSD-AN-00164 MTHD.V42 4 May ASTM E1645-01	3 mg/kg to 40000 mg/kg
4.	Textiles and Textile Products (Containing plastics, coating, wet paint and other similar surface coating material)	Total Cadmium content	CPSD-AN-00004- MTHD.V22 25 Feb . EN 1122 EC 1907	3 mg/kg to 500 mg/kg
5.	Textiles and Textile Products, Toys, Glass Accessories	Heavy Metals-Migration of certain Elements	CPSD-AN-00003 MTHD.V43 21 Feb EN-71-3, ASTMF-963	9 mg/kg to 500 mg/kg 5 mg/kg to 500 mg/kg 2.5 mg/kg to 5000 mg/kg 5 mg/kg to 500 mg/kg 25 mg/kg to 2000 mg/kg 50 mg/kg to 1000 mg/kg 2.5 mg/kg to 100 mg/kg 2.5 mg/kg to 500 mg/kg
6.	Textile and Textile Products Articles containing Glass	Total Heavy Metal Content (Cr, As, Sn, cu, Fe, Mn, Tl, Ni, V, Zr, Ba, Sb, Se, Co, Zn, Pb, Cd, Hg)	CPSD-AN-00164- MTHD.V42 4 May ASTM E1645-01	3 mg/kg to 40000 mg/kg
7.	Textiles and Textile Products including coated fabrics and garment components	Extractable heavy metal (Pb, Co, Cr, Ni, Cd, As, Hg, Sb, Cu, Ba & Se)	CPSD-AN-00063- MTHD.V24 18 Nov	0.1 mg/kg to 500 mg/kg 0.02 mg/kg to 200 mg/kg 0.005 mg/kg to 200 mg/kg 0.5 mg/kg to 500 mg/kg 5 mg/kg to 5000 mg/kg 0.5 mg/kg to 5000 mg/kg

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	(e.g. buttons, zips)			5 mg/kg to 500mg/kg
8.	Textiles and Textile Products (pvc Clothing)	Total Lead in PVC Clothing CA PROP 65	CPSD-AN-00148-MTHD.V4, 19 July .	5 mg/kg to 5000 mg/kg
9.	Textiles and Textile Products	Free Formaldehyde	CPSD-AN-00054-MTHD.V33-27 June . ISO14184-1 GBT2912-1 & LFGB 82 02-1: CPSD-AN-00058-MTHD.V6 15 July . JIS L1041: (Part A B), JAPAN LAW NO. 112, JAPAN TOY SAFETY STANDARD & CNS 14940 BS 6806 2	5 mg/kg to 300 mg/kg
		Release of Formaldehyde	CPSD-AN-00055-MTHD.V9 20 Nov . ISO14184-2: GBT2912-2: CPSD-AN-00059-MTHD.V6 15 July . BS6806 3	10 mg/kg to 300 mg/kg
		Formaldehyde spot	CPSD-AN-00018-MTHD.V11 23 Feb AATCC Test Method 94	(Qualitative) Present/Absent
10.	Textile and Textile Products (plastic, polymeric or coating)	PVC identification	CPSD-AN-00023-MTHD.V7 15 July .	(Qualitative) Present/Absent
11.	Textile and Textile Products	APEO & AP 4-n-Octylphenol (OP)	CPSD-AN-00735-MTHD.V15	1 mg/kg to 1000 mg/kg

Malancha Das
Convenor

Nitan Garg
Program Manager

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	(Including articles with plastic, paint, and liquid)	4-n-Nonylphenol (NP) Tert-4-Octylphenol (tert-op) Nonyl Phenol (NP) 4-Octylphenol-Ethoxylate (OPEO-2 to OPEO-16) 4-Nonylphenol-Ethoxylate (NPEO-2 to NPEO-18)	30 April	
12.	Textile and Textile Products	Chlorinated Organic Carrier 1)Chlorobenzene 2)1,3-Dichlorobenzene 3)1,4-Dichlorobenzene 4)1,2,3-Trichlorobenzene 5)1,2,3,4-Tetrachlorobenzene 6)3-Chlorotoluene 7)2,3-Dichlorotoluene 8)2,5-Dichlorotoluene 9)2,6-Dichlorotoluene 10)3,4-dichlorotoluene 11)2,3,6-Trichlorotoluene 12)2,4,5-Trichlorotoluene 13)2,3,4,5,6-Pentachlorotoluene 14)1,2,3,5-Tetrachlorobenzene 15)1,2,4-Trichlorobenzene 16)1,2,4,5-Tetrachlorobenzene 17)1,3,5-Trichlorobenzene 18)2-Chlorotoluene	CPSD-AN-00043-MTHD .V23 14 Feb DIN 54232	0.1 mg/kg to 100 mg/kg

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		19)Pentachlorobenzene 20)Hexachlorobenzene 21)2,4-dichlorotoluene 22)1,2-Dichlorobenzene 23)4-Chlorotoluene 24) α,α,α -Trichlorotoluene 25) α,α,α -2-Tetrachlorotoluene 26) α,α,α -4-Tetrachlorotoluene 27) $\alpha,\alpha,2,6$ -Tetrachlorotoluene		
		Disperse dyes 1)Disperse Brown-1 2)Disperse Blue-124 3)Disperse Blue-3 4)Disperse Blue-106 5)Disperse Blue-7 6)Disperse Blue-102 7)Disperse Blue-1 8)Disperse Blue-35 9)Disperse Orange-1 10)Disperse Orange-3 11)Disperse Orange-11 12)Disperse Orange-37 13)Disperse Orange-149 14)Disperse Yellow-1 15)Disperse Yellow-3 16)Disperse Yellow-9 17)Disperse Yellow-39 18)Disperse Yellow-49 19)Disperse Red-1 20)Disperse Red-11 21)Disperse Red-17	CPSD-AN-00048-MTHD.V41 10 Nov DIN 54231;2005 LFGB 82.02-10	10 mg/kg to 1000mg/kg

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		22)Basic Red-9 23)Basic Violet-14HCL 24)Disperse Yellow-23 25)Sudan-3 26)Sudan yellow 27)Disperse yellow-56 28)Disperse blue-26 29)Solvent yellow-1 30)Solvent yellow-2 31)Solvent yellow-3 32)Disperse Yellow-7 33)Disperse Red 151 34)Solvent Red-23 35)Basic Blue-26 36)Basic Violet-1 37)Basic Violet-3		
		Carcinogenic dyes 1)Acid Violet-49 2)Acid Red-26 3)Direct Red-28 4)Direct Black-38 5)Direct blue-6 6)Direct brown-95	CPSD-AN-00049-MTHD.V24 17 Oct DIN 54231;2005 LFGB 82.02-10	10 mg/kg to 1000mg/kg
		Navy Blue In Textile & Leather EC 1907	CPSD-AN-00082-MTHD.V9 5 Jan .	10 mg/kg to 1000 mg/kg
		Odour	CPSD-AN-00083 MTHD.V12 2 Feb SNV 195651	Qualitative
		Chlorophenols in textile & paper 1)2,3,4,5-Tetrachlorophenol	CPSD-AN-00094-MTHD.V12 14 May LFGB §64 B 82.02-8:	0.03 mg/kg to 300 mg/kg

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		2)2,3,4,6-Tetrachlorophenol 3)2,4,6-Trichlorophenol 4)2,3,6-Trichlorophenol 5)2,4,5-Trichlorophenol 6)3,4,5-Trichlorophenol 7)2,3,4-Trichlorophenol 8)2,3,5-Trichlorophenol 9)PentaChloroPhenol 10)2-Phenyl Phenol 11)2,3,5,6-Tetrachlorophenol 12)2-Chlorophenol 13)3-Chlorophenol 14)4-Chlorophenol 15)2,3-Dichlorophenol 16)3,4-Dichlorophenol 17)3,5-Dichlorophenol 18)4-Chloro-3-methylphenol	DD CEN/TS 14494	
13.	Textile and Textile Products (thermoplastic paint and ink/Synthetic fibers)	Phthalate 1)Dibutylphthalate 2)Benzyl Butyl Phthalate 3)Di-n-Octylphthalate 4)Di-Ethylhexylphthalate 5)Diisodecylphthalate 6)Di-n-Hexylphthalate 7)Di-n-Octylphthalate 8)Di-Iso-Butylphthalate 9)Di Cyclohexylphthalate 10)Dimethoxyethyl-phthalate 11)Di Propylphthalate 12)DiEthylPhthalate	CPSD-AN-00095-MTHD.V49 7 July H&MZ-AN-00001-MTHD.V4 21 Oct . CPSC-CH-C1001-09.3: CPSD-AN-0713 MTHD.V2, 24 Nov . ISO-16181:	0.0050% to 10%

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		13)Di-n-Pentylphthalate 14)Dimethylphthalate 15)Di Iso Nonyl phthalate, DINP 16)Di Undecyl Phthalate, DUP 17)Butyl Octyl Phthalate, BOP 18)Di Nonyl Phthalate, DNP 19)Di Iso Octyl Phthalate, DIOP 20)Di Iso Heptyl Phthalate, DiHePp 21)PIPp+DIPp+DnPp (mixture)		
14.	Textiles and Textiles Products	Dimethyl fumarate 251 EC French Arrete & KC Mark	CPSD-AN-00647 MTHD.V8. 26 April	0.03 mg/kg to 50 mg/kg
		Banned amines(azo dyes) in textile 1)O-Toluidine 2)2,4-xylidine 3)2,6-xylidine 4)2-Methoxyaniline 5)p-Chloroaniline 6)p-Kresidine 7)2,4,5-Trimethylaniline 8)4-Chloro-o-Toluidine 9)2,4-Toluylenediamine 10)2,4-Diaminoanisole 11)2-Naphthylamine 12)2-Amino-4-nitrotoluene 13)4-aminoazobenzene	CPSD-AN-00607- MTHD.V26 7 March EN 14362-1 § 64 LFGB B82.02-2: CPSD-AN-00272- MTHD.V25 20 March GB T 17592 GB 19601 CPSD-AN-00107- MTHD.V38 7 March § 64 LFGB B82.02-9: GB/T 23344& PR EN 14362-3:	4 mg/kg to 1000 mg/kg

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		14)4-Aminodiphenyl 15)4,4-Oxydianiline 16)Benzidine 17)4,4-Diaminodiphenylmethane 18)O-Aminoazotoluene 19)3,3-Dimethyl-4,4-diaminodiphenylmethane 20)3,3-Dimethylbenzidine 21)4,4-Thiodianiline 22)3,3-Dichlorobenzidine 23)4,4-Methylene-bis-(2-Chloroaniline) 24)3,3-Dimethoxybenzidine		
15.	Textiles and Textiles Products (Including Articles with Plastic)	N,N-Dimethylformamide	CPSD-AN-00153MTHD.V8 12 May	5 mg/kg to 1000 mg/kg
16.	Textiles and Textiles Products	Triclosan (Biocides)	CPSD-AN-00619 MTHD.V3 25 April	5 mg/kg to 1000 mg/kg
17.	Textiles and Textiles Products (polymers, coatings and man-made fabric)	Chlorinated paraffins SCCP (C10-C13), MCCP (C14-C17)	CPSD-AN-0810 MTHD.V6 30 May	30 mg/kg to 1000mg/kg 50mg/kg to 1000mg
18.	Textiles and Textiles Products (Paint and other similar surface coating)	Lead in paint and other similar surface coating	CPSD-AN-00001-MTHD.V45 12 April 16 CFR 1303:CPSC-CH-E1003-09.1:	4 mg/kg to 5000 mg/kg
19.	Textile and Textile Products	Organotin in Textile 1)n-Butyltin Trichloride	CPSD-AN-00089-MTHD.V30	0.02 mg/kg to 50 mg/kg

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		2)Tributyltinchloride 3)Tri-n-propyltinchloride 4)Dibutyltin dichloride 5)Tetrabutyltin 6)methyl Tin tri-chloride 7)Tricyclohexyltinchloride 8)n-Octyltintrichloride 9)Di-n-Octyltin-dichloride 10)Di-Methyl Tin Di-chloride 11)Tri-methyl Tin chloride 12)Trioctyltinchloride 13)Phenyl Tin Tri-chloride 14)Di Phenyl Tin Di-chloride 15)Triphenyltinchloride 16)Triethyltin chloride 17)Di-propyltin dichloride	21 Sep	
20.	Textile and Textile product containing Articles intended to come into direct and Prolonged contact with skin and coated items	Release of Nickel	CPSD-AN-0542 MTHD.V17 23 June . EN 12472:2005, BS EN 1811+A1	0.1 µgm/cm ² /week to 100 µgm/cm ² /week
		Nickel spot test	CPSD-AN-00013MTHD.V8, 6 Jan . PD CR 12471-	Qualitative (Present/Absent)
21.	Textile & Textile Products Article containing Plastic products	Pb,Cd,Hg,Cr (vi)in Plastics & Metals (RoHS)	CPSD-AN-00066MTHD.V24 29 Sep . CPSD-AN-00068 MTHD.V13 29 April IEC-62321	2.5mg/kg to 5000 mg/kg

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22.	Plastic products	Flame Retardants in RoHs (Mono BB's to Deca BB's & Mono BDE's to Deca BDE's)	CPSD-AN-00052MTHD.V14 27 Feb EC 62321:	0.1 mg/kg to 1000 mg/kg
23.	Leather and Leather Products	Total Heavy Metal Content (Cr,As,Sn,cu,Fe,/Mn,Tl,Ni, V,Zr,Ba,Sb,Se,Co,Zn,Pb, Cd,Hg)	CPSD-AN-00164-MTHD.V42 4 May ASTM E1645-01	3 mg/kg to 40000 mg/kg
		Heavy Metals-Migration of certain elements	CPSD-AN-00003 MTHD.V42 21 Feb	9 mg/kg to 500 mg/kg
		Cr	EN-71-3, ASTMF-963	5 mg/kg to 500 mg/kg
		Hg		2.5 mg/kg to 5000 mg/kg
		As		6 mg/kg to 500 mg/kg
		Cd		25 mg/kg to 2000 mg/kg
		Pb		50 mg/kg to 1000 mg/kg
		Sb		2.5 mg/kg to 00 mg/kg
		Ba		2.5 mg/kg to 500 mg/kg
		Se		
		Extractable heavy metal	CPSD-AN-00063-MTHD.V24 18 Nov .	0.1 mg/kg to 500 mg/kg
		Pb, Co, Cr, Ni		0.02 mg/kg to 200 mg/kg
		Cd, As		0.005 mg/kg to 200 mg/kg
		Hg		0.5 mg/kg to 500 mg/kg
		Sb		5 mg/kg to 5000 mg/kg
		Cu		0.5 mg/kg to 500 mg/kg
		Ba		5 mg/kg to 5000 mg/kg
		Se		
24.	Leather and Leather product containing Articles intended to come into	Release of Nickel	CPSD-AN-0542 MTHD.V17 23 June . EN 1811+A1	0.1µgm/cm ² /week to 100 µgm/cm ² /week

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	direct and Prolonged contact with skin and coated items			
25.	Leather and Leather products	Formaldehyde	CPSD-AN-00060-MTHD.V25 13 May . ISO 17226-1 & 2;2003 GB/T 1:2005 CPSD-AN-00061-MTHD.V5 15 July DIN 53315	5 mg/kg to 300 mg/kg
		PVC identification	CPSD-AN-00023-MTHD.V7 15 July .	(Qualitative) Present/Absent
		pH value	CPSD-AN-00029-MTHD.V11 26 June . ISO4045: & EN420	1 to 14
		APEO & AP 1)4-n-Octylphenol (OP) 2)4-n-Nonylphenol (NP) 3)4-Octylphenol-Ethoxylate (OPEO-2 to OPEO-16) 4)4-Nonylphenol-Ethoxylate (NPEO-2 to NPEO-18) 5)Tert-4-Octylphenol (tert-op) (tert-OP) 6)Nonyl Phenol	CPSD-AN-00735-MTHD.V15 30 April	1 mg/kg to 1000 mg/kg 1 mg/kg to 1000mg/kg
		Chlorinated Organic	CPSD-AN-00043-	0.1 mg/kg to 100 mg/kg

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		Carrier 1)Chlorobenzene 2)1,3-Dichlorobenzene 3)1,4-Dichlorobenzene 4)1,2,3-Trichlorobenzene 5)1,2,3,4-Tetrachlorobenzene 6)3-Chlorotoluene 7)2,3-Dichlorotoluene 8)2,5-Dichlorotoluene 9)2,6-Dichlorotoluene 10)3,4-dichlorotoluene 11)2,3,6-Trichlorotoluene 12)2,4,5-Trichlorotoluene 13)2,3,4,5,6-Pentachlorotoluene 14)1,2,3,5-Tetrachlorobenzene 15)1,2,4-Trichlorobenzene 16)1,2,4,5-Tetrachlorobenzene 17)1,3,5-Trichlorobenzene 18)2-Chlorotoluene 19)Pentachlorobenzene 20)Hexachlorobenzene 21)2,4-dichlorotoluene 22)1,2-Dichlorobenzene 23)4-Chlorotoluene 24) α,α,α -Trichlorotoluene 25) α,α,α -2-Tetrachlorotoluene 26) α,α,α -4-	MTHD.V23 14 Feb DIN54232:	

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		Tetrachlorotoluene 27) $\alpha,\alpha,2,6$ - Tetrachlorotoluene		
		Chromium VI (with and without Ageing)	CPSD-AN-00044- MTHD.V38 10 Nov ISO17075 QB/T 2880	0.5 mg/kg to 500 mg/kg
		Carcinogenic dyes 1)Acid Violet-49 2)Acid Red-26 3)Direct Red-28 4)Direct Black-38 5)Direct blue-6 6)Direct brown-95	CPSD-AN-00049- MTHD.V24 17 Oct DIN 54231 LFGB 82.02-10	10 mg/kg to 1000 mg/kg
		Navy Blue In Textile & Leather EC 1907	CPSD-AN-00082- MTHD.V9 5 Jan .	10 mg/kg to 1000 mg/kg
		Chlorophenols in Leather, Wood & Paints 1)2,3,4,5- Tetrachlorophenol 2)2,3,4,6- Tetrachlorophenol 3)2,3,5,6- Tetrachloropheno 4)2,4,6-Trichlorophenol 5)2,3,6-Trichlorophenol 6)2,4,5-Trichlorophenol 7)3,4,5-Trichlorophenol 8)2,3,4-Trichlorophenol 9)2,3,5-Trichlorophenol 10)PentaChloroPhenol 11)2-Chlorophenol	CPSD-AN-00093- MTHD.V15 14 May LFGB §64 B 82.02-8 DIN 53313 DD CEN/TS 14494	0.03 mg/kg to 300 mg/kg

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		12)3-Chlorophenol 13)4-Chlorophenol 14)2,3-Dichlorophenol 15)3,4-Dichlorophenol 16)3,5-Dichlorophenol 17)4-Chloro-3-methylphenol 18)2-Phenyl phenol		
		Lead in paint and other similar surface coating	CPSD-AN-00001-MTHD.V45 12 April 16 CFR 1303:CPSC-CH-E1003-09.1	4 mg/kg to 5000 mg/kg
		Phthalates 1)Dibutylphthalate 2)Benzyl Butyl Phthalate 3)Di-n-Octylphthalate 4)Di-Ethylhexylphthalate 5)Diisodecylphthalate 6)Di-n-Hexylphthalate 7)Di-n-Octylphthalate 8)Di-Iso-Butylphthalate 9)Di Cyclohexylphthalate 10)Dimethoxyethyl-phthalate 11)Di Propylphthalate 12)DiEthylPhthalate 13)Di-n-Pentylphthalate 14)Dimethylphthalate 15)Di Iso Nonyl phthalate,DINP 16)Di Undecyl Phthalate, DUP 17)Butyl Octyl Phthalate,	CPSD-AN-00095-MTHD.V49 7 July 017 H&MZ-AN-00001-MTHD.V4 21 Oct . CPSC-CH-C1001-09.3: CPSD-AN-0713MTHD.V8 24 Nov . ISO-16181	0.0050% to 10%

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		BOP 18)Di Nonyl Phthalate, DNP 19)Di Iso Octyl Phthalate, DIOP 20)Di Iso Heptyl Phthalate, DiHePp 21)PIPP+DIPp+DnPp (mixture)		
		Dimethyl fumarate 251 EC French Arrete & KC Mark	CPSD-AN-00647 MTHD.V8 26 April	0.1 mg/kg to 100 mg/kg
26.	Foot wear materials	N,N-Dimethylformamide	CPSD-AN-00153MTHD.V8 12 May	5 mg/kg to 1000 mg/kg
27.	Leather and Leather Products	Triclosan (Biocides)	CPSD-AN-00619MTHD.V3 25 April	5 mg/kg to 1000 mg/kg
		Chlorinated paraffins SCCP (C10-C13), MCCP (C14-C17)	CPSD-AN-00810MTHD.V6, 30 May EN ISO 18219	30 mg/kg to 000mg/kg 50mg/kg to 1000mg/kg
		Banned amines (Azo dyes) in Leather 1)O-Toluidine 2)2,4-xylidine 3)2,6-xylidine 4)2-Methoxyaniline 5)p-Chloroaniline 6)p-Kresidine 7)2,4,5-Trimethylaniline 8)4-Chloro-o-Toluidine 9)2,4-Toluylenediamine 10)2,4-Diaminoanisole 11)2-Naphthylamine 12)2-Amino-4-nitrotoluene	CPSD-AN-00017-MTHD.V30 10 Nov ISO 17234-1 CPSD-AN-00252-MTHD.V16, 23 Feb GB T 2 CPSD-AN-00107-MTHD.V38 7 Mar § 64 LFGB B82.02-9: GB/T 23344	4 mg/kg to 1000 mg/kg

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		13)4-aminoazobenzene 14)4-Aminodiphenyl 15)4,4-Oxydianiline 16)Benzidine 17)4,4-Diaminodiphenylmethane 18)O-Aminoazotoluene 19)3,3-Dimethyl-4,4-diaminodiphenylmethane 20)3,3-Dimethylbenzidine 21)4,4-Thiodianiline 22)3,3-Dichlorobenzidine 23)4,4-Methylene-bis-(2-Chloroaniline) 24)3,3-Dimethoxybenzidine	ISO 17234-2	
IV.	OTHERS			
1.	Packaging Material	Heavy metal in packaging (Pb, Cd, Cr-VI, Hg) Model Toxics in packaging Legislation of the Toxics in Packaging Clearing house (TPCH) & EU directive 94/62/EC	CPSD-AN-00065-MTHD.V18 22 Jan .	2.5 mg/kg to 500 mg/kg
2.	Others (Packaging Material-Silica Gel)	Dimethyl fumarate 251 EC French Arrete & KC Mark	CPSD-AN-00647 MTHD V8. 26 April	0.03 mg/kg to 50 mg/kg
3.	Others-Toys	Initial screening on BS EN 71-3 + A1 migration of certain elements Al Sb	CPSD-AN-00186-MTHD.V33 5 Feb BS EN 71-3 ASTM F963:	0.005 mg/kg to 2000mg/kg

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		As Ba Cd Co Cu Pb Mn Hg Ni Sr Se Sn Zn	ISO 8124:	
V.	POLLUTION & ENVIRONMENT			
1.	Waste Water	Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs Including All Isomers 1) Nonylphenol (NP), mixed isomers 2) Octylphenol (OP), mixed isomers 3) Octylphenol ethoxylates (OPEO) 4) Nonylphenol ethoxylates (NPEO)	NP/OP:ISO 18857-2, Validated In House Method:CPSD-AN-00556-MTHD.V12 30 April	0.2 µg/L to 50 µg/L
		Chlorobenzenes 1) 1,2-Dichlorobenzene 2) 1,3-Dichlorobenzene 3) 1,4-Dichlorobenzene 4) 1,2,4-Trichlorobenzene	USEPA 8260B CPSD-AN-00576-MTHD.V12 21 Feb	0.1 µg/l to 2 µg/l
		Chlorobenzenes and	Validated In House	0.1 µg/l to 5 µg/l

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		Chlorotoluenes 1) Monochlorobenzene 2) 1,2,3-Trichlorobenzene 3) 1,3,5-Trichlorobenzene 4) 1,2,3,4-Tetrachlorobenzene 5) 1,2,3,5-Tetrachlorobenzene 6) 1,2,4,5-Tetrachlorobenzene 7) Pentachlorobenzene 8) Hexachlorobenzene 9) 2-Chlorotoluene 10) 3-Chlorotoluene 11) 4-Chlorotoluene 12) 2,3-Dichlorotoluene 13) 2,4-Dichlorotoluene 14) 2,5-Dichlorotoluene 15) 2,6-Dichlorotoluene 16) 3,4-Dichlorotoluene 17) 3,5-Dichlorotoluene 18) 2,3,4-Trichlorotoluene 19) 2,3,6-Trichlorotoluene 20) 2,4,5-Trichlorotoluene 21) 2,4,6-Trichlorotoluene 22) 3,4,5-Trichlorotoluene 23) 2,3,4,5-Tetrachlorotoluene 24) 2,3,5,6-Tetrachlorotoluene 25) 2,3,4,6-Tetrachlorotoluene 26) Pentachlorotoluene	Method: CPSD-AN-00576-MTHD.V12 21 Feb	
		Dyes-Disperse	Validated In House	0.05 mg/L to 0.5 mg/L

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		(Sensitizing) 1) Disperse Yellow 1 2) Disperse Blue 102 3) Disperse Blue 106 4) Disperse Yellow 39 5) Disperse Orange 37/59/76 6) Disperse Brown 1 7) Disperse Orange 1 8) Disperse Yellow 3 9) Disperse Red 11 10) Disperse Red 1 11) Disperse Red 17 12) Disperse Blue 7 13) Disperse Blue 26 14) Disperse Yellow 49 15) Disperse Blue 35 16) Disperse Blue 124 17) Disperse Yellow 9 18) Disperse Orange 3 19) Disperse Blue 35	Method: CPSD-AN-00799-MTHD.V3 5 Jan	
		Dyes-Carcinogenic or Equivalent Concern 1) C.I. Direct Black 38 2) C.I. Direct Blue 6 3) C.I. Acid Red 26 4) C.I. Basic Red 9 5) C.I. Direct Red 28 6) C.I. Basic Violet 14 7) C.I. Disperse Blue 1 8) C.I. Disperse Blue 3 9) C.I. Basic Blue 26 (with Michler's Ketone > 0.1%)	Validated In House Method:CPSD-AN-00799-MTHD. V3 5 Jan	0.05 mg/l to 0.5 mg/l

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		10) C.I. Basic Green 4 (malachite green chloride) 11) C.I. Basic Green 4 (malachite green oxalate) 12) C.I. Basic Green 4 (malachite green) 13) Disperse Orange 11 14) Navy blue		
		Chlorophenols 1) 2-chlorophenol 2) 3-chlorophenol 3) 4-chlorophenol 4) 2,3-dichlorophenol 5) 2,4-dichlorophenol 6) 2,5-dichlorophenol 7) 2,6-dichlorophenol 8) 3,4-dichlorophenol 9) 3,5-dichlorophenol 10) 2,3,4-trichlorophenol 11) 2,3,5-trichlorophenol 12) 2,3,6-trichlorophenol 13) 2,4,5-trichlorophenol 14) 2,4,6-trichlorophenol 15) 3,4,5-trichlorophenol 16) 2,3,4,5-tetrachlorophenol 17) 2,3,4,6-tetrachlorophenol 18) 2,3,5,6-tetrachlorophenol 19) Pentachlorophenol	Validated In House Method:CPSD-AN-00578-MTHD.V8 7 Mar	0.1 µg/l to 1 µg/l
		Phthalates-Including all ortho esters of phthalic	ISO 18856: CPSD-AN-00571-	1 µg/l to 20 µg/l

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		acid 1) Di(ethylhexyl) phthalate (DEHP) 2) Di-n-octyl phthalate (DNOP) 3) Dibutyl phthalate (DBP) 4) Butyl benzyl phthalate (BBP) 5) Diethyl phthalate (DEP) 6) Di-n-propyl phthalate (DPRP) 7) Di-isobutyl phthalate (DIBP) 8) Di-cyclohexyl phthalate (DCHP)	MTHD.V10 30 Oct	
		Phthalates-Including all ortho esters of phthalic acid 1) Bis(2-methoxyethyl) phthalate(DMEP) 2) Di-iso-decyl phthalate (DIDP) 3)Di-isononyl phthalate (DINP) 4)Di-n-hexyl phthalate (DnHP) 5) Dinonyl phthalate (DNP) 6) Di-iso-octyl phthalate (DIOP) 7) 1,2-benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	Validated In House Method:CPSD-AN-00571-MTHD.V10 30 Oct	1 µg/l to 20 µg/l

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		(DHNUP) 8) 1,2-benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)		
		Dyes-Azo (Forming Restricted Amines) 1) 4,4'-methylene-bis-(2-chloro-aniline) 2) 4,4'-methylenedianiline 3) 4,4'-oxydianiline 4) 4-chloroaniline 5) 3,3'-dimethoxybenzidine 6) 3,3'-dimethylbenzidine 7) 6-methoxy-m-toluidine 8) 2,4,5-trimethylaniline 9) 4,4'-thiodianiline 10) 4-aminoazobenzene 11) 4-methoxy-m-phenylenediamine 12) 4,4'-methylenedi-o-toluidine 13) 2,6-xylydine 14) o-anisidine 15) 2-naphthylamine 16) 3,3'-dichlorobenzidine 17) 4-aminodiphenyl 18) Benzidine 19) o-toluidine 20) 2,4-xylydine 21) 4-chloro-o-toluidine 22) 4-methyl-m-	Validated In House Method: CPSD-AN-00574-MTHD.V8 10 Dec .	0.1 µg/l to 1 µg/l

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		phenylenediamine 23) o-aminoazotoluene 24) 5-nitro-o-toluidine		
		Organotin Compounds 1) Monobutyltin trichloride (MBTCl) 2) Dibutyltin dichloride (DBTCl) 3) Tributyltin chloride (TBTCl) 4) Mono-octyltin trichloride (MOTCl) 5) Dioctyltin dichloride (DOTCl) 6) Triphenyltin chloride (TPhTCl)	ISO 17353: CPSD-AN-00575-MTHD.V10 11 June	0.01 µg/l to 0.4 µg/l
		Organotin Compounds 1) Tetrabutyltin (TeBT) 2) Trioctyltin chloride (TOTCl) 3) Tripropyltin chloride (TPTCl) 4) Tricyclohexyltin chloride (TCyTCl) 5) Dimethyltin dichloride (DMeTCl) 6) Triethyltin chloride (TETCl) 7) Diphenyltin dichloride (DPhTCl) 8) Trimethyltin chloride (TMeTCl) 9) Monophenyltin trichloride (PhTCl) 10) Monomethyltin	Validated In House Method:CPSD-AN-00575-MTHD.V10 11 June	0.01 µg/l to 0.4 µg/l

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		trichloride (MeTCl) 11) Dipropyltin dichloride (DProTCl)		
		Polycyclic Aromatic Hydrocarbons (PAHs) 1) Benzo[a]pyrene (BaP) 2) Anthracene 3) Pyrene 4) Benzo[ghi]perylene 5) Benzo[e]pyrene 6) Indeno[1,2,3-cd]pyrene 7) Benzo[j]fluoranthene 8) Benzo[b]fluoranthene 9) Fluoranthene 10) Benzo[k]fluoranthene 11) Acenaphthylene 12) Chrysene 13) Dibenz[a,h]anthracene 14) Benzo[a]anthracene 15) Acenaphthene 16) Phenanthrene 17) Fluorene 18) Naphthalene	Validated In House Method: CPSD-AN-00576-MTHD.V12 21 Feb	0.1 µg/l to 1 µg/l
		Arsenic	USEPA 3015A & 6020A	1 µg/l to 5 µg/l
		Cadmium	CPSD-AN-00581	0.1 µg/l to 5 µg/l
		Lead	MTHD.V13,02 Jan	1 µg/l to 14 µg/l
		Mercury		0.05 µg/l to 0.5 µg/l
		Antimony		1 µg/l to 14 µg/l
		Cobalt		1 µg/l to 14 µg/l
		Copper		1 µg/l to 14 µg/l
		Nickel		1 µg/l to 14 µg/l
		Zinc		1 µg/l to 5 µg/l

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		Chromium		1 µg/l to 14 µg/l
		Silver		1 µg/l to 14 µg/l
		Chromium VI(Cr VI)	EPA 7196A CPSD-AN-00582 MTHD.V4 12 Oct	1 mg/l to 10 mg/l
2.	Sludge	Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs Including All Isomers 1) Nonylphenol (NP), mixed isomers 2) Octylphenol (OP), mixed isomers 3) Octylphenol ethoxylates (OPEO) 4) Nonylphenol ethoxylates (NPEO)	Validated In House Method:CPSD-AN-00556-MTHD.V12 21 Feb	0.2 mg/kg to 100 mg/kg
		Chlorobenzenes 1) 1,2-Dichlorobenzene 1 2) 1,3-Dichlorobenzene 3) 1,4-Dichlorobenzene 7 4) 1,2,4-Trichlorobenzene	USEPA 8260B CPSD-AN-00576 MTHD.V12 21 Feb	10 µg/kg to 200 µg/kg
		Chlorobenzenes and Chlorotoluenes 1) Monochlorobenzene 2) 1,2,3-Trichlorobenzene 3) 1,3,5-Trichlorobenzene 4) 1,2,3,4-Tetrachlorobenzene 5) 1,2,3,5-Tetrachlorobenzene	Validated In House Method:CPSD-AN-00576-MTHD.V12 21 Feb	10 µg/kg to 200 µg/kg

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		6) 1,2,4,5-Tetrachlorobenzene 7) Pentachlorobenzene 8) Hexachlorobenzene 9) 2-Chlorotoluene 10) 3-Chlorotoluene 11) 4-Chlorotoluene 12) 2,3-Dichlorotoluene 13) 2,4-Dichlorotoluene 14) 2,5-Dichlorotoluene 15) 2,6-Dichlorotoluene 16) 3,4-Dichlorotoluene 17) 3,5-Dichlorotoluene 18) 2,3,4-Trichlorotoluene 19) 2,3,6-Trichlorotoluene 20) 2,4,5-Trichlorotoluene 21) 2,4,6-Trichlorotoluene 22) 3,4,5-Trichlorotoluene 23) 2,3,4,5-Tetrachlorotoluene 24) 2,3,5,6-Tetrachlorotoluene 25) 2,3,4,6-Tetrachlorotoluene 26) Pentachlorotoluene		
		Dyes-Disperse (Sensitizing) 1) Disperse Yellow 1 2) Disperse Blue 102 3) Disperse Blue 106 4) Disperse Yellow 39 5) Disperse Orange 37/59/76 6) Disperse Brown 1	Validated In House Method: CPSD-AN-00799-MTHD.V3 5 Jan	0.05 mg/kg to 0.5 mg/kg

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		7) Disperse Orange 1 8) Disperse Yellow 3 9) Disperse Red 11 10) Disperse Red 1 11) Disperse Red 17 12) Disperse Blue 7 13) Disperse Blue 26 14) Disperse Yellow 49 15) Disperse Blue 35 16) Disperse Blue 124 17) Disperse Yellow 9 18) Disperse Orange 3 19) Disperse Blue 35		
		Dyes-Carcinogenic or Equivalent Concern 1) C.I. Direct Black 38 2) C.I. Direct Blue 6 3) C.I. Acid Red 26 4) C.I. Basic Red 9 5) C.I. Direct Red 28 6) C.I. Basic Violet 14 7) C.I. Disperse Blue 1 8) C.I. Disperse Blue 3 9) C.I. Basic Blue 26 (with Michler's Ketone > 0.1%) 10) C.I. Basic Green 4 (malachite green chloride) 11) C.I. Basic Green 4 (malachite green oxalate) 12) C.I. Basic Green 4 (malachite green) 13) Disperse Orange 11 14) Navy blue	Validated In House Method:CPSD-AN-00799-MTHD V3 5 Jan	0.05 mg/kg to 0.5 mg/kg
		Chlorophenols	Validated In House method	5 µg/kg to 50 µg/kg

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		1) 2-chlorophenol 2) 3-chlorophenol 3) 4-chlorophenol 4) 2,3-dichlorophenol 5) 2,4-dichlorophenol 6) 2,5-dichlorophenol 7) 2,6-dichlorophenol 8) 3,4-dichlorophenol 9) 3,5-dichlorophenol 10) 2,3,4-trichlorophenol 11) 2,3,5-trichlorophenol 12) 2,3,6-trichlorophenol 13) 2,4,5-trichlorophenol 14) 2,4,6-trichlorophenol 15) 3,4,5-trichlorophenol 16) 2,3,4,5-tetrachlorophenol 17) 2,3,4,6-tetrachlorophenol 18) 2,3,5,6-tetrachlorophenol 19) Pentachlorophenol	CPSD-AN-00578-MTHD.V8 07 Mar	
		Phthalates-Including all ortho esters of phthalic acid 1) Di(ethylhexyl) phthalate (DEHP) 2) Dibutyl phthalate (DBP) 3) Butyl benzyl phthalate (BBP) 4) Diethyl phthalate (DEP)	USEPA 8270D CPSD-AN-00571 MTHD.V10 30 Oct	250 µg/kg to 5000 µg/kg
		Phthalates-Including all ortho esters of phthalic	Validated In House Method:CPSD-AN-00571-	250 µg/kg to 5000 µg/kg

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		acid 1) Bis(2-methoxyethyl) phthalate(DMEP) 2) Di-n-octyl phthalate (DNOP) 3) Di-iso-decyl phthalate (DIDP) 4)Di-isononyl phthalate (DINP) 5)Di-n-hexyl phthalate (DnHP) 6) Dinonyl phthalate (DNP) 7) Di-n-propyl phthalate (DPRP) 8) Di-isobutyl phthalate (DIBP) 9) Di-cyclohexyl phthalate (DCHP) 10) Di-iso-octyl phthalate (DIOP) 11) 1,2-benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP) 12) 1,2-benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	MTHD. V10 30 Oct	
		Dyes-Azo (Forming Restricted Amines)	Validated In House Method: CPSD-AN-00590-	10 µg/kg to 100 µg/kg

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		1) 4,4'-methylene-bis-(2-chloro-aniline) 2) 4,4'-methylenedianiline 3) 4,4'-oxydianiline 4) 4-chloroaniline 5) 3,3'-dimethoxybenzidine 6) 3,3'-dimethylbenzidine 7) 6-methoxy-m-toluidine 8) 2,4,5-trimethylaniline 9) 4,4'-thiodianiline 10) 4-aminoazobenzene 11) 4-methoxy-m-phenylenediamine 12) 4,4'-methylenedi-o-toluidine 13) 2,6-xylidine 14) o-anisidine 15) 2-naphthylamine 16) 3,3'-dichlorobenzidine 17) 4-aminodiphenyl 18) Benzidine 19) o-toluidine 20) 2,4-xylidine 21) 4-chloro-o-toluidine 22) 4-methyl-m-phenylenediamine 23) o-aminoazotoluene 24) 5-nitro-o-toluidine	MTHD.V9 10 Dec	
		Organotin Compounds 1) Monobutyltin trichloride (MBTCI) 2) Dibutyltin dichloride (DBTCI)	Validated In House Method:CPSD-AN-00575-MTHD.V10 11 June	10µg/kg to 50 µg/kg

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		3) Tributyltin chloride (TBTCI) 4) Tetrabutyltin (TTBT) 5) Mono-octyltin trichloride (MOTCI) 6) Dioctyltin dichloride (DOTCI) 7) Trioctyltin chloride (TOTCI) 8) Tripropyltin chloride (TPTCI) 9) Triphenyltin chloride (TPhTCI) 10) Tricyclohexyltin chloride (TCyTCI) 11) Dimethyltin dichloride (DMeTCI) 12) Triethyltin chloride (TETCI) 13) Diphenyltin dichloride (DPhTCI) 14) Trimethyltin chloride (TMeTCI) 15) Monophenyltin trichloride (PhTCI) 16) Monomethyltin trichloride (MeTCI) 17) Dipropyltin dichloride (DProTCI)		
		Polycyclic Aromatic Hydrocarbons (PAHs) 1) Benzo[a]pyrene (BaP) 2) Anthracene 3) Pyrene	Validated In House Method: CPSD-AN-00576-MTHD.V12 21 Feb	0.01 mg/kg to 0.1 mg/kg

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		4) Benzo[ghi]perylene 5) Benzo[e]pyrene 6) Indeno[1,2,3-cd]pyrene 7) Benzo[j]fluoranthene 8) Benzo[b]fluoranthene 9) Fluoranthene 10) Benzo[k]fluoranthene 11) Acenaphthylene 12) Chrysene 13) Dibenz[a,h]anthracene 14) Benzo[a]anthracene 15) Acenaphthene 16) Phenanthrene 17) Fluorene 18) Naphthalene		
		Arsenic	USEPA 3051A & 6020A	1 mg/kg to 10 mg/kg
		Cadmium	CPSD-AN-00581	1 mg/kg to 10 mg/kg
		Lead	MTDH.V13	1 mg/kg to 10 mg/kg
		Mercury	02 Jan	0.02 mg/kg to 0.2 mg/kg
		Antimony		1 mg/kg to 10 mg/kg
		Cobalt		1 mg/kg to 10 mg/kg
		Copper		1 mg/kg to 10 mg/kg
		Nickel		1 mg/kg to 10 mg/kg
		Zinc		4 mg/kg to 40 mg/kg
		Chromium		1 mg/kg to 10 mg/kg
		Silver		1 mg/kg to 10 mg/kg
		Chromium VI(Cr VI)	USEPA 3060A & 7196A CPSD-AN-00582 MTHD.V4 12 Oct	0.1 mg/kg to 10 mg/kg

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
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ELECTRONICS TESTING

I.	SAFETY TESTING FACILITY			
1.	IT Equipment-Subgroup II	Input current (Cl. 1.6.2)	IEC 60950-1:A2 EN 60950-1:A2 IS 13252:A2	Qualitative
		Durability (Cl.1.7.11)		
	Information technology equipment	Access to energized parts (Cl. 2.1.1.1)		10N to 250N
		Energy Hazards (Cl. 2.1.1.5)		1V to 60V dc 100mA to 60A 1W to 300W
		Discharge of capacitors in equipment (Cl.2.1.1.7)		0.5V to 500V a.c., 50ms to 5s
		SELV Circuits (Cl.2.2.2/2.3.4/2.3.5)		1V to 60V dc 100mA to 60A 1W to 300W
		Limited current circuits (Cl.2.4.1, 2.4.2)		50µA to 3.5mA
		Limited Power Sources (Cl.2.5)		1V to 60V dc 100mA to 60A 1W to 300W
		Resistance of earthing conductors and their terminals (Cl. 2.6.3.4)		6.0 to 60.0 A 100mΩ to 0.6Ω
		Humidity conditioning (Cl. 2.9.2)		Temp: Ambient to +180°C Rh:85% to 98%
		Creepage distance/clearance		1mm to 200mm

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		(Cl. 2.10.3/2.10.4)		
		Material group and comparative tracking index (Cl. 2.10.4.2)	IEC 60950-1:A2 : . EN 60950-1: A2 IS 13252 : A2	Qualitative
		Cord anchorage and strain relief (Cl.3.2.6)		10N to 250N
		Cord guards (Cl.3.2.8)		10N to 250N
		Stability (Cl. 4.1)		Angle:1° to 10°
		Steady force test (Cl. 4.2.1-4.2.4)		10N to 250N
		Impact test (Cl.4.2.5)		Qualitative
		Drop test (Cl.4.2.6)		Qualitative
		Stress relief test (Cl.4.2.7)		30°C-175 °C
		Wall or ceiling mounted equipment (Cl.4.2.10)		0.5kg to 150Kg
		Handles and manual controls (Cl.4.3.2)		10N to 250N
		Direct plug-in equipment (Cl.4.3.6)		Upto 0.3 Nm
		Protection against hazardous moving parts (Cl. 4.4)		Qualitative requirement
		Temperature Tests (Thermocouple Method) (Cl.4.5.2)		25°C to 200 °C
		Resistance to abnormal heat (Cl.4.5.5)		(-)5mm, 20N max 0.1mm to 100mm 0-180°C
		Materials for fire enclosures		Qualitative

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		(4.7.3.2 & Annex A) Glow Wire testing		
		Materials used in high-voltage components (Cl 4.7.3.6) Needle flame test		
		Touch current and protective conductor current (Cl.5.1)		50µA to 3.5mA
		Electric strength (Cl.5.2)		500 V to 6.00 kVa.c 500 V to 6.00 kVd.c
		Abnormal operating and fault conditions Thermocouple Method) (Cl.5.3)		25°C to 200 °C
		Impulse test (cl .6.2.2.1)		100 V to 7.7 kVa.c for 1.2x 50µs 1.2 µs (Rise time) 50 µs (Time duration) 100 V to 7 kVa.c for 10X700 µs 10 µs (Rise time) 700 µs (Time duration)
		Voltage surge test (Cl .7.4.2)		1kVa.c-10kVa.c
II.	AUDIO EQUIPMENT			
1.	Audio Equipment-Subgroup I	Marking and instructions (Cl. 5.0)	IEC 60065/EN 60065 IS 616	Qualitative
	Audio Video Equipment	Identification and Supply ratings (Cl. 5.1(g))		15 to 300V a.c 250mA to 30 A 50 to 60Hz

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Heating under normal operating conditions (Thermocouple Method) (Cl. 7)		25°C to 200 °C
		Constructional requirements with regard to protection against electric Shock (Cl.8.0)		10N to 20N
		Test on Insulating Material (Cl.8.3)		25 °C to 80°C 20% RH to 95%RH
		Force on Windows, lens etc. (Cl.8.13)		10 N to 250N,
		Force on covers (Cl. 8.14)		10 N to 250N,
		Forces on internal wire (Cl.8.15)	IEC 60065 EN 60065 IS 616:	10 N to 250N,
		Electric shock Hazard under normal operating conditions (Cl.9.1.1.1, 9.1.1.2, 9.1.3, 9.1.6)		Qualitative
		a) Touch current and protective conductor current (Cl.9.1.1.1 (b))		50µA to 3.5mA
		b) Determination of accessible parts (Cl.9.1.1.2)		Qualitative
		Withdrawal of MAINS plug (Cl.9.1.6)		15V to 300Va.c, 50ms to 5s
		Resistance to external forces (Cl.9.1.7)		10N to 250N Qualitative
		Surge Test (Cl.10.1)		1kVa.c to 10kVa.c
		Humidity treatment (Cl.10.2)		Ambient to 180°C RH:20% to 95%

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Insulation resistance & Electric strength test (Cl.10.3)		500 to 1000 Vd.c, 100 ohm to 9.99 G ohm 500 Va.c to 6kVa.c
		Impact test (Cl.12.1.3)		Qualitative
		Drop test (Cl.12.1.4)		Qualitative
		Stress relief Test (Cl.12.1.5)		25°C to 180 °C
		Antenna Coaxial Socket-Endurance test (Cl.12.5)		Qualitative
		Torque		0.3Nm to 6Nm 100 cNm to 500 cNm
		Clearances and Creepage distances (Cl.13.3, 13.4)		10N to 250N, 0.01mm to 200mm
		Provisions for Protective earthing (Cl.15.2)		6.0A to 60.0 A 10mΩ to 0.6Ω
		Device forming part of the mains plug (Cl.15.4)		Force:10 N to 250N
		Electrical connections and mechanical fixings (Cl.17.1)		0.01Nm to 500 CNm
		Stability and mechanical hazards (Cl.19.1, 19.2) Angle Force		1° to 10° 10N to 250N
III.	POWER SUPPLIES & STABILIZERS			
1.	Uninterruptible Power Systems (UPS) Part 1 General and Safety	Power Interface (Cl.4.6 RD/1.6.2)	IEC 62040-1:/ EN 62040-1: IS 16242 (Part 1)	15 to 300V a.c 250mA to 30 A 50Hz to 60Hz
		High leakage current (Cl. 4.7.13 RD/5.1)		50μA to 3.5mA

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	Requirements for UPS	Durability of markings (CI 4.7.16-RD/1.7.11)		Qualitative
		Protection for UPS intended to be used in service access areas/ (CI 5.1.2-RD/2.1.1.1)		Qualitative
		Back-feed protection (CI 5.1.4)		15V to 300Va.c, 50ms to 5s
		Safety extra low voltage circuits-SELV (CI. 5.2.1)	IEC 62040-1:/ EN 62040-1: IS 16242 (Part 1)	1V to 60V dc 100mA to 60A 1W to 300W
		Limited current circuits (CI 5.2.3-RD/2.4)		50µA to 3.5mA
		Limited Power Sources (CI 5.2.5-RD/2.5)		1V to 60V dc 100mA to 60A 1W to 300W
		Protective earthing and bonding (CI 5.3-RD/2.6.3.4)		6.0A to 60.0 A 10mΩ to 0.6Ω
		Clearances, Creepage distance and distances through insulation (CI 5.7-RD/2.10)		15V to 300Va.c, 30Vp to 700Vp 0.01mm to 200mm
		General provisions for connection to power (CI 6.2.1-RD/3.2.6)		10N to 250N
		Stability (CI 7.2)		Qualitative
		Mechanical Test (CI 7.3-RD/4.2)		Qualitative
		Wall or ceiling mounted equipment (CI 7.3-RD/4.2.10)		500g to 150Kg
		Construction Details		10N to 250N

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		Handles and manual controls (Cl .7.4-RD/4.3.2)		
		Construction Details Protection against hazardous moving parts (Cl .7.4-RD/4.4.2)	IEC 62040-1 EN 62040-1 IS 16242 (Part 1)	Qualitative
		Openings (Cl .7.4.2)		Qualitative
		Resistance to fire & Flammability (Cl 7.5 & Annex A)		Qualitative
		Abnormal openings and Fault conditions (Cl.8.3.2)		Qualitative
		Temperature rise (Thermocouple Method) (Cl. 7.7-RD/4.5.2)		Upto 200 °C
		General requirement for earth leakage (Cl 8.1-RD/5.1.1)		50µA to 3.5mA
		Electric strength (Cl 8.2-RD/5.2)		500V to 6.00 kVa.c 500V to 6.00 kVd.c
		Abnormal operating and fault conditions (Thermocouple Method) Temperature (Cl.8.3)		25°C to 200 °C
		Surge Test (Cl. 9 RD/6)		1kVa.c to 10kVa.c
		Impulse Test (Cl. 9 RD/6)		100 V to 7.7 kVa.c for 1.2x 50µs 1.2 µs (Rise time)

Malancha Das
Convenor

Nitan Garg
Program Manager

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				50 μ s (Duration time) 100 V to 10kVa.c for 10X700 μ s 10 μ s (Rise time) 700 μ s (Duration time)
IV.	ENVIRONMENTAL TEST FACILITY			
1.	Environmental Tests (Electronic and Non Electronic)	Cold test	IEC 60068-2-1 IS 9000(Part 2 Sec1 to 4 ISO 16750-4 BS ISO 16750-4 Clause:5.1.1 IS 10250 Clause:4.4 JSS 55555 QM333/Issue:March Test No:1	Ambient to (-)70° C
		Dry heat test	IEC 60068-2-2 () IS 9000 (Part 3sec1 to 5 ISO 16750-4 BS ISO16750-4 Clause:5.1.2 QM-333 Test No:2 JSS55555, Revision.2	Ambient to 180° C
		Damp Heat (Steady State)	IEC 60068-2-78 (.) IS 9000(Part 4) ISO 16750-4 BS ISO16750-4 Clause:5.7 QM-333 Test No:5 JSS 55555, Revision.2	25° C to 85°C with 95% RH

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		Damp heat (cyclic) test	IEC 60068-2-30 IS 9000(Part 5Sec1 & 2) ISO 16750-4 BS ISO16750-4 Clause:5.6.2.2 IS 10250, Clause:4.3 QM 333 Test No.3 JSS55555, Revision.2	25°C to 40°C with 95% RH, 25°C to 55°C with 95% RH, 25° C to 65°C with 95% RH
		Change of temperature	IEC 60068-2-14 (Part 2-14) IS 9000 (Part 14/Sec 1 to 3) ISO 16750-4 BS ISO16750-4 Clause:5.3 QM 333 Test No.4	(-)70° C to 180° C
	IT, UPS and Photovoltaic Power system	Environmental Test Facility Degree of Protection provided by Enclosures. - Ingress of solid foreign objects. IP1X to 4X (Clause No.13)	IEC 60529:1989 + A1:+ A2 EN 60529:1991+ A1	Qualitative
		Degree of Protection provided by Enclosures. - Ingress of water IPX1 to X8 (Clause No.14)		
2.	Safety Testing Facility-Group IX	DC power source for testing (Cl. 4.1)	IEC/EN 61683 IS 61683	15 to 1000Vdc/ 250mA to 30A d.c
	Power Supplies & Stabilizers-Subgroup IV	Output voltage and frequency (Cl 4.3)		15 to 300Vac/400Va.c 15 to 1000Vdc 47Hz to 60Hz
		Input voltage (Cl 4.4)		15 to 300Vac/400Va.c 15 to 1000Vdc

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	Power conditioners used in stand-alone and utility-interactive photovoltaic systems, where the output of the power conditioner is a stable a.c. voltage	Ripple and Distortion (Cl. 4.5)		0.1 Vp to 50 Va.c
		Resistive loads/utility grid (cl.4.6)	IEC/EN 61683 IS 61683	15 to 300Vac/400Va.c 15 to 1000Vdc 250mA to 30A d.c/a.c Power: 0.25 PF to 2250W, 0.50PF to 4500 W, 0.75PF to 6750 W, 1.0 PF to 9000W, (Each Phase)
		Reactive loads (Cl 4.7)		15 to 300Vac/400Va.c 15 to 1000Vdc 250mA to 30A d.c/a.c 0.25 PF to 2250W, 0.50PF to 4500 W, 0.75PF to 6750 W, 1.0 PF to 9000W, (Each Phase) Frequency:47Hz to 60Hz PF:0.25 to 1.0 (Lead & Lag)
		Rated output efficiency (Cl 5.1)	IEC/EN 61683 IS 61683	15 to 300Vac/400Va.c 15 to 1000Vdc 250mA to 30A d.c/a.c 0.25 PF to 2250W, 0.50PF to 4500 W, 0.75PF to 6750 W, 1.0 PF to 9000W, (Each Phase) 47Hz to 60Hz
		Partial output efficiency (Cl 5.2)		15 to 300Va.c/400Va.c 15 to 1000Vdc

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				250mA to 30A d.c/a.c 0.25 PF to 2250W, 0.50PF to 4500 W, 0.75PF to 6750 W, 1.0 PF to 9000W, (Each Phase) 47Hz to 60Hz
		Energy efficiency (CI 5.3)		0.25 PF to 2250W, 0.50PF to 4500 W, 0.75PF to 6750 W, 1.0 PF to 9000W, (Each Phase)
		Efficiency tolerances (CI 5.4)		0.25 PF to 2250W, 0.50PF to 4500 W, 0.75PF to 6750 W, 1.0 PF to 9000W, (Each Phase)
		No-load loss(CI 7.1)		500
		Standby loss(CI 7.2)		500W
3.	Power Supplies & Stabilizers-Subgroup IV Utility-interconnected photovoltaic inverters	Test procedure Islanding Prevention Measures (CI .6.1)	IEC/EN 62116 IS 16169	15 to 300Vac/400Va.c
				15 to 1000Vdc
				250mA to 30A d.c/a.c
				47Hz to 60Hz
				PF:0.2 to 1.0 (Lead & Lag)
				15 to 1000Vdc
				0.25 PF to 2250W, 0.50PF to 4500 W, 0.75PF to 6750 W, 1.0 PF to 9000W, (Each Phase)
				50ms to 5s

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4.	Safety Testing Facility-Group IX Power Supplies & Stabilizers-Subgroup IV Utility-interconnected photovoltaic (PV) power systems-for the conversion of DC to AC for System rated at 10KVA or less	DC injection (Cl. 4.4)	IEC/EN 61727	15mA to 5A d.c/a.c
				Qualitative 50ms to 5s
		Normal frequency operating range (Cl. 4.5)		47Hz to 60Hz
		Harmonics and waveform distortion (Cl. 4.6)		1 st to 40 th Harmonics
		Power factor (Cl. 4.7)		0.2 to 1.0 PF 15 to 300Vac, 400Va.c
		Over/under voltage (Cl. 5.2.1)		47Hz to 60Hz
		Frequency (Cl. 5.2.2)		
		Islanding protection (Cl. 5.3)		0.25 PF to 2250W, 0.50PF to 4500 W, 0.75PF to 6750 W, 1.0 PF to 9000W, (Each Phase)
			50ms to 5s	
		Response to utility recovery (Cl. 5.4)	50ms to 5s	
5.	Power Supplies & Stabilizers-Subgroup IV PCE connected to systems not	Maximum temperatures (Thermocouple Method) (Cl. 4.3.2)	IEC 62109-1: edition BS EN 62109-1 & IEC 62109-2: BS EN 62109-2	25°C to 200 °C 15 to 300Vac/400Va.c 15 to 1000Vdc
		Testing in Single Fault Condition (Cl. 4.4)		

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	exceeding maximum PV source circuit voltage of 1 500 V d.c. The equipment may also be connected to systems not exceeding 1 000 V a.c. at the a.c. mains circuits, non-mains a.c. load circuits, and to other DC source or load circuits such as batteries.	Humidity preconditioning Conditions (Cl. 4.5)	IS 16221(Part 1) and IS 16221 (Part 2)	Qualitative requirement Temp: Ambient to +180°C Rh:85% to 98%	
		Electrical rating tests (Cl. 4.7)			15 to 300Vac/400Va.c
					15 to 1000Vdc
					250mA to 30A d.c/a.c
					47Hz to 60Hz
					0.2 to 1.0 (Lead & Lag)
				0.25 PF to 2250W, 0.50PF to 4500 W, 0.75PF to 6750 W, 1.0 PF to 9000W, (Each Phase)	
		Stand-alone Inverter AC output voltage and frequency (Cl .4.7.4)			15 to 300Vac/400Va.c
					15 to 1000Vdc
					47Hz to 60Hz
		Sinusoidal output voltage waveform requirements (Cl.4.7.5.2)		15 V to 300Va.c, 10Vp to 700Vp 50ms to 5s	
		Total harmonic distortion (Cl. 4.7.5.3.2)	IEC 62109-1: edition BS EN 62109-1&	1 st to 40 th Harmonic	
		Protection by residual current monitoring (Cl 4.8.3.5)	IEC 62109-2: BS EN 62109-2 IS 16221(Part 1) and IS 16221 (Part 2)	250mA to 5A d.c/a.c	
		Marking General (Cl. 5.1.1)		Qualitative	
		Durability of markings (Cl. 5.1.2)		Qualitative	
		Ingress protection		Qualitative	

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		(Cl 6.3)		
		Working Voltage & DVC (Cl. 7.3.2.6)		15V to 300Va.c, 10Vp to 400Vp
		Access probe tests (Cl. 7.3.4.2.3)		Qualitative
		Rating of protective Bonding (Cl. 7.3.6.3.3)		6.0 to 60.0 A 10mΩ to 0.6Ω
		Insulation Voltage (7.3.7.1.4)		100 V to 7.7 kV for 1.2x 50μs 1.2 μs (Rise time) 50 μs (Time duration)
		Clearance and Creepage distances (Cl. 7.3.7.4 & Cl.7.3.7.5)		0.01mm to 100mm
		Protection against shock hazard due to stored energy (Cl. 7.3.9)		0.5V to 500Va.c, 10Vp to 400Vp 50ms to 5s
		Determination of hazardous energy level (Cl. 7.4.1)		60V 60A 300W
		Operator access areas (Cl. 7.4.2)	IEC 62109-1: edition BS EN 62109-1 & IEC 62109-2: BS EN 62109-2 IS 16221(Part 1) and IS 16221 (Part 2)	Qualitative
		Impulse voltage test (type test) (Cl. 7.5.1)		Qualitative 100 V to 7.7kVa.c for 1.2x 50μs 1.2 μs (Rise time) 50 μs

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				(Time to half value)
		Voltage test (dielectric strength test) (type test and routine test) (Cl. 7.5.2)		Qualitative 0.01 kV to 6.00 k Va.c 0.01kV to 6.00 k Vd.c
		Humidity Pre-conditioning (Cl 7.5.2.3)		Qualitative Temp: Ambient to +180°C Rh:85% to 98%
		Touch current measurement (type test) (Cl. 7.5.4)		50µA to 3.5 mA
		Moving parts (Cl. 8.2)		Qualitative
		Stability (Cl. 8.3)		1°-10°, Upto 800N
		Provisions for lifting and carrying (Cl. 8.4)		Qualitative
		Wall mounting (Cl. 8.5)		Qualitative
		Materials for fire enclosures (CL 9.1.3)		Qualitative
		Limited Power Source (CL. 9.2)		1V to 60V dc 100mA to 60A 1W to 300W
		Handles and manual controls (Cl. 13.1)		10 to 250N
		Cord Anchorages and strain relief (Cl. 13.3.2.5)	IEC 62109-1 edition BS EN 62109-1	10N to 250N
		Direct plug-in equipment (Cl. 13.3.8)	IEC 62109-2: BS EN 62109-2:	Qualitative 0.05 N to M to 0.3N-M
		Top and side openings (Cl. 13.5.1)	IS 16221(Part 1) and IS 16221 (Part 2)	0.01mm to 200mm

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		Stress Relief test (13.6.2.1)		Qualitative 25°C to 100 °C
		250 N deflection test for metal enclosures (Cl. 13.7.2)		Qualitative 10 to 250N
		7 J impact test for polymeric enclosures (Cl. 13.7.3)		Qualitative
		Drop test (Cl. 13.7.4)		Qualitative
		Cast Metal (Cl. 13.8.2)		0.01mm to 100mm
		Sheet Metal (Cl. 13.8.3)		0.01mm to 100mm
6.	Power Supplies & Stabilizers- Subgroup IV Automatic disconnection device between a generator and the public low voltage grid	Voltage control Cl. 6.2	VDE V 0126-1-1-08	15 to 300Vac/400Va.c
		Frequency control Cl. 6.3		47Hz-60Hz
		Direct current control Cl. 6.4		15mA to 5A d.c/a.c
		Oscillating circuit test (Cl. 6.5.2)		15 to 300Vac/400Va.c 15 to 1000Vdc
		Integrated disconnection device (Cl. 6.6 (4.7))		250mA to 30A d.c/a.c
			0.25 to 1.0 (Lead & Lag)	
			0.25 PF to 2250W, 0.50PF to 4500 W, 0.75PF to 6750 W, 1.0 PF to 9000W, (Each Phase) 50ms to 5s	

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7.	Power Supplies & Stabilizers-Subgroup IV IEEE Standard Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems	Operational temperature test procedure (Cl. 5.1.2.1) Storage temperature test procedure (Cl. 5.1.2.2) Unintentional islanding test (Cl. 5.7.1)	IEEE 1547.1	Qualitative requirement (-)70 to 70°C 85% RH to 95% RH 15 to 300Vac/400Va.c 15 to 1000Vdc 250mA to 30A d.c/a.c 47Hz to 60Hz P.F:0.2 to 1.0 (Lead & Lag) 0.25 PF to 2250W, 0.50PF to 4500 W, 0.75PF to 6750 W, 1.0 PF to 9000W, (Each Phase) 50ms to 5s

MECHANICAL TESTING

I.	TEXTILE MATERIALS			
1.	Yarn	Yarn count	ASTM D 1059: ISO 7211-5: method A	5 Tex to 120 Tex 5 Ne to 120 Ne
2.	Garment/Fabric	Mass per unit area (weight) of fabric	ASTM D 3776/3776M: ae2 (.) (option C) BS EN 12127: ISO 3801:1977 Method 5	40 GSM to 590 GSM
		Fabric count of woven	ASTM D3775:e1	(10 to 100)/cm

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		fabric	ISO 7211-2:	(25 to 250/inch)
		stitch density of knitted fabric"	ASTM D 3887: ()	(10 to 100) threads/cm (25 to 250/inch)
		Breaking strength & elongation textile fabric (Grab Test)	ASTM D5034:09() ISO 13934-2 BS EN ISO 13934-2	50 N to 2000 N 5 kg to 200kg
		Breaking strength & elongation textile fabric (Strip Method)	ASTM D 5035 ISO 13934-1 BS EN ISO 13934-1	50 N to 2000 N 5 kg to 200kg
		Resistance of slippage of yarns in woven fabric using a std seam	ASTM D 434: BS EN ISO 13936-1 ISO 13936-1	0.5kg to 100kg (5 N to 1000 N)
		Failure in sew seams of woven fabrics slippage resistance of yarns in	ASTM D 1683/D 1683 M-17 BS EN ISO 13935-2 ISO 13935-2	0.5kg to 100kg (5 N to 1000 N)
		Properties Seam opening Fixed load method	BS EN ISO 13936-part II ISO 13936-2	0.5kg to 100kg (5 N to 1000 N)
		Tear force using ballistic pendulum method (Elmendorf)	ISO 13937-1:2000/Cor 1 BS EN ISO 13937-1 ASTM D1424:09 e1	0.2Kg to 24 Kg (2 N to 240 N)
		Tearing strength of fabrics by the tongue (single rib) procedure (constant-rate-extension tensile testing machine)	ASTM D 2261-13() ISO 13937-2 ASTM D5587 ASTM D 4533/D 4533M BS EN ISO 13937-2	0.5 kg to 30 kg (5 N to 300 N)
		Hydraulic bursting strength of knitted gods and non-woven fabrics- Diaphragm bursting strength tester method	ASTM D 3786/D 3786M: BSEN ISO 13938-1: ISO 13938-1: DIN EN ISO 13938-1	175 kPa to 1034 kPa 25 PSI to 150 PSI
		Flammability (Inclined Plane)	16 CFR 1610: ASTM D 1230:	Class 1.0 to class 3.0

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		Pilling resistance and other related surface changes of textile fabrics:Elastomeric pad pilling	ASTM D 3514/D3514 M-2016	Qualitative Grade:1 to 5
		Pilling resistance and other related surface changes of textile fabrics:Random tumble pilling tester	ASTM D3512/D3512 M:2018	Qualitative Grade:1 to 5
		Abrasion resistance of textile fabrics (inflated diaphragm method)	ASTM D 3886	Upto 5000 cycles Grade:1 to 5
		Abrasion resistance of fabrics by the Martindale method part Specimen breakdown	BS EN ISO 12947-Part I, II DIN EN ISO 12947 (part II) ISO 12947-2:/Cor1: ASTM D 4966:12 Option:1 BS EN ISO 12947-Part III: ISO 12947-3: /Cor1	1000 cycles to 50000 cycles
		Mass loss	ISO 12947-4: /Cor1 ASTM D 4966:12 . Option:3	0.2% to 20 %
		Appearance change	BS EN ISO 12947-Part IV: ISO 12947-4:/Cor1 Part IV ASTM D 4966:12 Option:2	Qualitative Grade:1 to 5
		Fabric propensity of surface fuzzing & to pilling	BS EN ISO 12945-1 ISO 12945-1	Qualitative Grade:1 to 5
		Fabric propensity of surface fuzzing & to pilling	ISO 12945-2 BS EN ISO 12945-2	Qualitative Grade:1 to 5

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		(modified Martindale method)	ASTM D4970/D4970M-16e36	
		Water Absorption of Terry Fabrics	ASTM D4772	1% to 100%
		Vertical Wicking of Textiles	AATCC-197	0.01 mm/s to 1mm/sec
3.	Fabric	Dimensional changes to automatic home laundering of woven & knit fabrics	AATCC-135	(-)50 to +50%
		Stretch Properties of Knitted fabrics having Low power	ASTM D 2594 BS EN 14704-1 EN 14704-1 NF EN 14704-1 NF EN 14704-3 DIN EN 14704-1 (2005-07) ASTM D6614 ASTM D4964	5% to 200%
		Stretch Properties of Fabrics woven from Stretch Yarns	ASTM D 3107	5% to 100%
		Bow & Skew in Woven & Knitted Fabrics	ASTM D 3882:08(.).e1	Upto 50 %
4.	Garment	Dimensional changes to automatic home laundering of garments	AATCC-150	(+)50% to (-)50%
5.	Textile Accessoris	Sharp points (under a force of 4.45N (1 pound))	ASTM F 963: Section 4.9 16 CFR 1500.48	Qualitative
		Sharp edges (under a force of 8.90 N)	ASTM F 963: Section 4.7 16 CFR 1500.49	Qualitative

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		(2 pound) Torque test up to 9kg-cm (up to 7.8 inch pounds)	ASTM F 963: Section 8.8 16 CFR 1500.51-53	Qualitative
		Determination of small parts tension test	ASTM F 963 Section 8.9 16 CFR 1500.51-53	Qualitative
		Small parts-choking hazard test (small part cylinder of 31.7 mm inner diameter)	ASTM F 963: Section 4.6 16 CFR 1501	Qualitative
6.	Snaps fastness attached to fabric/Garment	Resistance to unsnapping of snap fastness (textile auxiliaries)	ASTM D 4846	1N to 250 N (0.2 lbf to 50 lbf)
7.	Zipper strength properties (separate or attached with garment)	Strength test for zippers (Textile Auxiliary)	ASTM D 2061 BS 3084	25 N to 1500 N (5 lbf to 300 lbf)
II.	LEATHER & FOOT WEAR			
1.	Leather & Footwear	Tensile Strength & Elongation	BS EN ISO 3376 BS EN ISO 20344 BS EN ISO 20345 BS EN ISO 20346 Ref. SATRA TM 43	1 N/mm ² to 100 N/mm ²
		Tear Strength (Double Edge)	BS EN ISO 3377-2 Ref. SATRA TM 162 BS EN ISO 20344	2 N to 1000 N

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			BS EN ISO 20345 BS EN ISO 20346	
		Tear Strength (Single Edge)	BS EN ISO 3377-1 Ref. SATRA TM 30 ASTM D4704	2 N to 1000 N
		Determination of Thickness	BS EN ISO 2589 ASTM D1813 Ref. SATRA TM 01	0.01 mm to 5 mm
		Upper Flexing Resistance (Vamp)	Ref. SATRA TM 25 BS EN ISO 5402-2	100 Flex to 10,00,000 Flexes
		Flexing Resistance (Bally)	BS EN ISO 5402-1 Ref. SATRA TM 55 BS EN ISO 17694 ASTM D6182(00)	100 Flex to 1,00,000 Flexes
		Cold Crack Resistance	BS EN ISO 17233 ASTM D1912(00)	(+)5° C to (-)30° C
		Adhesion of Finish	BS EN ISO 11644	0.5 N/10 mm to 50 N/10 mm
		Determination of Dry Heat Resistance	BS EN ISO 17227	150 Degree to 250 Degree
		Blocking Resistance Of Leather	ASTM D 6116	Non-blocking to Blocking(Qualitative)
		Breaking Strength Of Leather	ASTM D 2208	2 lbs to 390 lbs
		Seam Strength	BS 5131-5.13 Ref. SATRA TM 180 BS EN ISO 17697	0.5 N/mm to 40 N/mm
		Heel Attachment Strength	Ref. SATRA TM 113 BS EN 12785:2000	5 N to 2000 N
		Abrasion Resistance (Martindale)	Ref. SATRA TM 31 BS EN 13520 BS EN ISO 20344 BS EN ISO 20345	1600 Rubs to 51200 Rubs

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			BS EN ISO 20346	
		Top Piece Attachment Strength	Ref. SATRA TM 108 BS 5131-5.9/BS EN ISO 8	2N to 500 N
		Strength of Toe Posts	Ref. SATRA TM 118	2N to 500 N
		Sole Bond Peel Strength	Ref. SATRA TM 411 BS EN ISO 17708 BS 5131-5.4:1978 BS EN ISO 20344 BS EN ISO 20345 BS EN ISO 20346	0.2 N/mm to 20 N/mm
		Ross Flexing Resistance	Ref. SATRA TM 60 BS 5131-2.1	100 to 1,50,000 Flexes
		Whole Shoe Flexing Resistance	Ref. SATRA TM 92	500 to 5,00,000 Flexes
		Flexing Resistance of Sole (Belt Flex)	Ref. SATRA TM 133	500 Cycles to 10,00,000 Cycles
		Flexing Resistance of Sole (Bennewart)	BS EN ISO 17707 Ref. SATRA TM 161 BS EN ISO 20344 BS EN ISO 20345 BS EN ISO 20346	100 Flex to 30,000 Flexes
		Hardness [SHORE A & D]	ASTM D 2240 Ref. SATRA TM 205	Shore A 5 to 100 Shore D 6 to 58
		Buckle & Strap Attachment Strength	Ref. SATRA TM 181 BS 5131. 5.11	5 N to 1000 N
		Decorative Bow Attachment Strength	Ref. SATRA TM 117	5 N to 1000 N
		Strap to Sole Attachment Strength	Ref. SATRA TM 120	5 N to 1000 N
		Abrasion resistance (Sole material)	BS ISO 4649 BS EN 12770 Ref. SATRA TM 174	50 mm ³ to 1500 mm ³
		Toe and Heel Bond	BS 5131:5.1	20 N to 1000 N

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		Strength	Ref. SATRA TM 404	
		Strength of Eyelet Facings and Other Laced Fastenings	Ref. SATRA TM 149	5 N to 800 N
		Attachment of Eyelet	Ref. SATRA TM 150	5 N to 800 N
		Density	BS ISO 2781+Amd.1 Ref. SATRA TM 134	0.2 g/mm ³ to 1.9 g/mm ³
		Fatigue Resistance	Ref. SATRA TM 21 BS EN ISO 6 BS 5131-4.9	500 Cycles to 20,000 Cycles
		Impact Resistance	Ref. SATRA TM 20 BS 5131-4.8	0 J to 18.3 J
		Stitch tear strength of Leather:double hole	ASTM D4705	2 N to 1000 N
		Measurement of stitch tear Resistance of leather	(BS EN ISO 23910)	2 to 390 Lbs
		Coating Adhesion	Ref. SATRA TM 410	0.2 N/10 mm to 50 N/10 mm