Laboratory	**Alpha Test House, 160, Industrial Area, Phase-IX, SAS Nagar, Mohali, Punjab**		
Accreditation Standard	**ISO/IEC 17025: 2005**		
Certificate Number	**TC-5723**	**Page 1 of 16**	
Validity	**01.03.2018 to 29.02.2020**	**Last Amended on 05.03.2018**	

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

CHEMICAL TESTING

I.	**BUILDING MATERIALS**			
1.	**Cement / Hydraulic Cement/ Portland Pozzolana Cement**	Aluminum Oxide (Al_2O_3)	IS 4032: 1985; (RA 2014), Clause 4.6.1	0.1% to 20%
		Calcium Oxide (CaO)	IS 4032: 1985; (RA 2014), Clause 4.7.2	0.1% to 70%
		Chloride (Cl)	IS 4032: 1985; (RA 2014), Amd. -2	0.01% to 1%
		Insoluble Residue	IS 4032: 1985; (RA 2014), Clause 4.10	0.1% to 40%
		Iron Oxide (Fe_2O_3)	IS 4032: 1985; (RA 2014), Clause 4.5.2	0.1% to 10%
		Loss on Ignition	IS 4032: 1985; (RA 2014), Clause 4.2	0.1% to 10%
		Magnesium Oxide (MgO)	IS 4032: 1985; (RA 2014), Clause 4.8.2	0.1% to 15%
		Silica (SiO_2)	IS 4032: 1985; (RA 2014), Clause 4.3	1.0% to 60%
		Total Sulphur (as SO_3)	IS 4032: 1985; (RA 2014), Clause 4.9	0.1% to 5.0%
		Alkali as Sodium Oxide (Na_2O)	IS 4032: 1985; (RA 2014), Clause 4.11	0.10% to 2.5%
2.	**Fly Ash**	Silicon Oxide (SiO_2)	IS: 1727-1967	1.0% to 65%
		Aluminum Oxide (Al_2O_3)	IS: 1727-1967	1.0% to 45%
		Iron Oxide (Fe_2O_3)	IS: 1727-1967	0.5% to 20%
		Magnesium oxide (Mg O)	IS: 1727-1967	0.05% to 20%
		Total sulphur (as SO_3)	IS: 1727-1967	0.05% to 10%

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		Available Alkalis as Sodium Oxide (Na_2 O)	IS: 3812:2013	0.01% to 2.5%
		Loss in Ignition	IS: 1727-1967	0.1% to 10%
3.	**Admixture**	Ash Content	IS: 9103 : 1999 (RA 2004)	1% to 50%
		Dry Material Content	IS: 9103 : 1999 (RA 2004)	1% to 90%
		pH Value	IS: 9103 : 1999 (RA 2004)	1% to 12%
		Relative Density	IS: 9103 : 1999 (RA 2004)	1% to 1.5%
		Chloride content	IS: 6925:1973 (RA 2008)	0.01% to 10%
4.	**Bentonite**	pH value	IS 6186-1986, (RA 2003)	2 to 12
5.	**Plaster of Paris / Gypsum**	Free lime	IS: 2547(Part -1)-1976 (Annex-C) (RA 2002)	0.10% to 15%
		Calcium oxide (CaO)	IS: 1288-1982	1.0% to 70%
		Loss in ignition	IS: 2547(Part -1)-1976 (Annex-B) (RA 2002)	0.1% to 20%
		Magnesium oxide (MgO)	IS: 1288-1982	0.1% to 15%
		Total Sulphur (as SO_3)	IS: 1288-1982	0.5% to 50%
		Sodium salt (as Na_2O)	IS: 2547 (Part -1)-1976 (RA 2002)	0.1% to 1.5%
II.	**SOIL AND ROCK**			
1.	**Soil**	Calcium Carbonate	IS: 2720 (Part -23)-1976 (RA 2005)	1.0% to 50%
		pH	IS: 2720 (Part -26)-1987 (RA 2005)	1 to 14
		Electrical Conductivity	APHA (22nd Edition)-2010 B:2012	1 µ mhos/ cm to 5000 µ mhos/ cm
		Total soluble solids	IS: 2720 (Part -21):1977 (RA 2005)	0.01% to 10%
		Organic matter	IS: 2720 (Part -22)-1972 (RA 2010)	0.01% to 5.0%

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III.	**METALLIC COATING & TREATMENT SOLUTIONS**			
1.	**Metals**	Mass of Zinc Coating	IS 6745:1972	10 g/m^2 to 2000 g/m^2
2.	**Aluminum Section**	Anodic Coating	IS: 5523-1983 (RA 2006) (Stripping method)	8 µm to 35 µm
IV.	**METALS AND ALLOYS**			
1.	**Low Alloy Steel**	**By Wet Chemical Method**		
		Carbon (C)	IS: 228 (Part -1)-1987 (RA 2007)	0.05% to 2.50%
		Silicon (Si)	IS: 228 (Part -8)-1989 (RA 2004)	0.05% to 5.0%
		Manganese (Mn)	IS: 228 (Part -2)-1987 (RA 2002)	0.1% to 10%
		Phosphorus (P)	IS: 228 (Part -3)-1987 (RA 2002)	0.01% to 0.25%
		Sulphur (S)	IS: 228 (Part -9)-1989 (RA 2004)	0.01% to 0.50%
		Sulphur + Phosphorus	ATH-Mohali/SOP/02 Issue No. 01, Issue Dated 09.03.2018	Quantitative (By Calculation)
		Carbon Equivalent	ATH-Mohali/SOP/03 Issue No. 01, Issue Dated 09.03.2018	Quantitative (By Calculation)
2.	**Stainless Steel**	**By Wet Chemical Analysis**		
		Carbon (C)	IS: 228 (Part -1)-1987 (RA 2007)	0.05% to 1.5%

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		Silicon (Si)	IS: 228 (Part -8)-1989 (RA 2004)	0.05% to 5.0%
		Manganese (Mn)	IS: 228 (Part -2)-1987 (RA 2002)	0.1% to 10%
		Sulphur (S)	IS: 228 (Part -9)-1989 (RA 2004)	0.01% to 0.25%
		Phosphorus (P)	IS: 228 (Part -3)-1987 (RA 2002)	0.01% to 0.50%
		Nickel (Ni)	IS: 228 (Part -5)-1987 (RA 2002)	0.1% to 30%
		Chromium (Cr)	IS: 228 (Part -6)-1987 (RA 2002)	1.0% to 30%
		Molybdenum (Mo)	IS: 228 (Part -7)-1990 (RA 2001)	1.0% to 5.0%
3.	**Loy Alloy Steel**	**By Optical Emission Spectrophotometer**		
		Carbon (C)	ASTM E-415-14	0.010% to 1.17%
		Silicon (Si)	IS:8811-1998	0.0034% to 1.21%
		Manganese (Mn)		0.10% to 2.0%
		Phosphorus (P)		0.005% to 0.15%
		Sulphur (S)		0.004% to 0.10%
		Chromium(Cr)		0.015% to 3.382%
		Molybdenum(Mo)		0.0040% to 3.448%
		Nickel(Ni)		0.010% to 2.984
		Copper (Cu)		0.011% to 0.62%
		Boron (B)		0.0005% to 0.013%
		Aluminium (Al)		0.009% to 0.32%
		Titanium (Ti)		0.0010% to 0.174%
		Cobalt (Co)		0.0030% to 0.198%
		Tin (Sn)		0.0050% to 0.11%
		Arsenic (As)		0.0010% to 0.032%

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		Zirconium (Zr)		0.005% to 0.020%
		Nitrogen (N)		0.005% to 0.029%
4.	**Stainless Steel**	**By CCD Based Optical Spectrophotometer**		
		Carbon (C)	ASTM-E-1086-14	0.010% to 1.17%
		Silicon (Si)		0.043% to 2.27%
		Manganese (Mn)		0.10% to 1.38%
		Phosphorus (P)		0.0096% to 0.10%
		Sulphur (S)		0.0025% to 0.11%
		Chromium(Cr)		6.25% to 25.58%
		Molybdenum(Mo)		0.05% to 2.98%
		Nickel(Ni)		0.10% to 24.65%
		Copper (Cu)		0.012% to 1.964%
		Cobalt (Co)		0.010% to 2.980%
		Aluminium (Al)		0.0010% to 0.040%
		Boron (B)		0.0003% to 0.094%
		Titanium (as Ti)		0.0050% to 0.174%
		Vanadium (as V)		0.003% to 0.405%
		Tungsten (as W)		0.007% to 0.25%
		Nitrogen (as N)		0.005% to 0.029%
		Zirconium (Zr)		0.0005% to 0.020%
		Tin(Sn)		0.0050% to 0.11%
		Niobium (Nb)		0.009% to 0.072%
5.	**Non-Ferrous Metal**	**Copper & Brass**		
		Copper	BS EN 15079-2015	52% to 99.99%
		Tin		0.03% to 3.0%
		Lead		0.03% to 5.0%
		Zinc		5.0% to 45%
		Iron		0.05% to 0.20%
		Nickel		0.05% to 0.20%
		Aluminium		0.01% to 0.20%

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Silicon		0.02% to 0.050%
		Manganese		0.05% to 0.30%
		Chromium		0.01% to 0.2%
		Cobalt		0.005% to 0.10%
		Arsenic		0.005% to 0.20%
		Bismuth		0.02% to 0.05%
		Antimony		0.02% to 0.07%
		Cadmium		0.001% to 0.025%
		Boron		0.001% to 0.002%
		Oxygen		0.01% to 0.036%
		Phosphorus (as P)		0.001% to 0.003%
6.	**Aluminum Alloy**	Copper	ASTM E 1251-07	0.003% to 1.30%
		Magnesium		0.002% to 4.50%
		Silicon		0.005% to 10.50%
		Iron		0.01% to 0.80%
		Manganese		0.002% to 0.30%
		Nickel		0.002% to 1.20%
		Zinc		0.002% to 0.60%
		Lead		0.005% to 0.10%
		Tin		0.002% to 0.15%
		Titanium		0.003% to 0.17%
		Chromium		0.002% to 0.12%
		Cobalt		0.001% to 0.004%
V.	**WATER**			
1.	**Construction Water**	Fixed Residue/ Organic Solids	IS 3025(Part -18)-2004 (RA 2006)	2.5 mg/l to 1000 mg/l
		Chloride	IS 3025(Part -32):1988 (RA 2003)	1 mg/l to 5000 mg/l

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Alkanity	IS 3025(Part -23):1986, (RA -2003)	0.1 ml to 500 ml
		Acidity	IS 3025(Part -22)-1986 (RA 2003)	0.1 mg/l to 500 ml
		Sulphate as SO_3	IS 3025 (Part -24)-1986 (RA 2003)	10 mg/l to 500 mg/l
		Total Suspended Solids	IS 3025 (Part -17)-1984 (RA 2006)	2.5 mg/l to 1000 mg/l
		Inorganic Solids	IS 3025(Part -16)-1984, (RA 2006)	2.5 mg/l to 10000 mg/l
		pH value	IS 3025 (Part -11)-1983 (RA 2002)	1 to 14
2.	**Drinking Water, Packaged Drinking Water, Mineral Water**	Colour	IS: 3025(Part -4)-1983 (RA 2002)	1 hazen unit to 50 hazen unit
		Odour	IS: 3025(Part -5)-1983 (RA 2002)	Qualitative
		Taste	IS: 3025 (Part -7 &8)-1984 (RA 2002)	Qualitative
		Turbidity	IS: 3025(Part -10)-1984 (RA 2002)	1 NTU to 40 NTU
		pH Value	IS: 3025(Part -11)-1983 (RA 2002)	1 to 12
		Total Hardness (as Ca CO_3)	IS: 3025(Part -21)-2009	5 mg/l to 10000mg/l
		Total Dissolved solid	IS: 3025(Part -16)-1984 (RA 2006)	10 mg/l to 10000 mg/l
		Chloride (as Cl)	IS: 3025(Part -32)-1988 (RA 2003)	2 mg/l to 5000 mg/l
		Sulphate (as SO_4)	IS: 3025(Part -24)-1986 (RA 2003)	10 mg/l to 500 mg/l

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Calcium (as Ca)	IS: 3025(Part -40)-1991 (RA 2003)	5 mg/l to 1500mg/l
		Magnesium (as Mg)	IS: 3025(Part -46)-1994 (RA 2003)	5 mg/l to 1000 mg/l
		Acidity	IS: 3025(Part -22)-1986 (RA 2003)	5 mg/l to 2000 mg/l
		Alkalinity	IS: 3025(Part -23)-1986 (RA 2003)	5 mg/l to 2000 mg/l
VI.	**POLLUTION & ENVIRONMENT**			
1.	**Waste Water (Effluent/Sewage)**	pH Value	IS: 3025(Part -11)-1983 (RA 2002)	1 to 14
		Total Suspended Solids	IS 3025 (Part -17)-1984 (RA 2006)	3.0 mg/l to 10000 mg/l
		Oil & grease	IS: 3025(Part -39)-1991 (RA 2003)	4.0 mg/l to 100 mg/l
		Chemical Oxygen Demand (COD)	IS: 3025(Part -58)-2006	2.0 mg/l to 5000 mg/l
		Bio chemical oxygen Demand (BOD)	IS: 3025(Part -44)-1993 (RA 2009)	2.0 mg/l to 5000 mg/l
		Colour	IS: 3025(Part -4)-1983 (RA 2002)	Qualitative
		Odour	IS: 3025(Part -5)-1983 (RA 2002)	Qualitative
		Total Dissolved solid	IS: 3025(Part -16)s-1984 (RA 2006)	10 mg/l to 10000 mg/l

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NOTE: The Laboratory has demonstrated competence for the stated scope for **WATER**. This however **does not fully cover** the specification requirements of **BIS for the Packaged Drinking Water as per IS:14543 and the Packaged Natural Mineral Water IS:13428.**

MECHANICAL TESTING

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
I.	**MECHANICAL PROPERTIES OF METALS**			
1.	**Steel/ Reinforcement/ Structural steel**	Tensile Strength	IS: 1608-2005 (RA 2011)	100 N/mm^2 to 800 N/mm^2
		Yield Stress/ 0.2% Proof stress	IS: 1608-2005 (RA 2011)	100 N/mm^2 to 800 N/mm^2
		Elongation	IS: 1608-2005 (RA 2011)	0.5% to 50%
		Bend Test	IS:1599-1985 (RA 2012) IS:2062-2011	Qualitative (Mandred Diameter: 16, 20, 24, 30, 32, 36, 40, 48, 50, 56, 60, 64, 70, 75, 80, 84, 96, 100, 108, 112, 120, 125, 128, 140, 144, 150, 160, 168, 175, 180, 192, 196, 224, 252, 256, 288 mm)
		Re bend Test	IS: 1786-2008	Qualitative (Mandred Diameter: 32, 40, 48, 50, 70, 72, 84, 108, 112, 120, 140, 144, 150, 168, 175, 180, 192, 196, 224, 225, 252, 288 mm)
		Pull out test	IS:2770 (Part-1):2007 IS:1786-2013	5 kN to 500 kN 2% to 20%
2.	**Ferrous / Non-Ferrous**	Tensile Strength	IS:1608-2005 (RA 2011)	50 MPa to 1500 MPa
		Yield Stress/ 0.2% Proof stress	IS:1608-2005 (RA 2011)	50 MPa to 1500 MPa

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Products (Al, Cu, Brass)	Elongation	IS:1608-2005 (RA 2011)	2% to 90%
		Reduction in area	IS:1608-2005 (RA 2011)	5% to 90%
3.	**Ferrous Products & welded Specimen**	Bend Test (Root Bend) Face Bend / Side Bend	BS-EN ISO 5173-2012 IS: 1599-2012 ASME (Sec IX)2017 IS: 3600-5-1983 (RA 2006) IS: 3600-7-1985 (RA 2003)	Qualitative
4.	**Ferrous/ Non Ferrous Products (Tubes & Pipes)**	Flattening Test (75%,60% & Close flattening)	IS: 2328-2005 (RA 2011)	Qualitative Maximum ϕ300 mm
5.	**Ferrous & Non Ferrous Products**	Brinell Hardness	IS: 1500 (Part-1):2013	100 HBW to 830 HBW (10/3000, 5/750)
		Rockwell Hardness Scale B Scale C	IS: 1586 (Part-2):2012	 40 HRB to 95 HRB 20HRC to 70 HRC
6.	**CRC/HRC Sheet**	Ericson Cupping Test	IS:10175 (Part-1):1993	Up to 2mm thickness ± 2%
II.	**BUILDING MATERIALS**			
1.	**Coarse Aggregate**	Bulk Density	IS: 2386 (Part-3)-1963 (RA 2011)	0.5 kg/l to 2 kg/l
		Crushing Value	IS: 2386 (Part-4)- 1963 (RA 2011)	5% to 50%
		Elongation Index	IS: 2386 (Part-1)- 1963 (RA 2011)	1% to 50%
		Los Angeles Abrasion test	IS: 2386 (Part -4)- 1963 (RA 2011)	10% to 50%

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		Flakiness Index	IS: 2386 (Part -1)- 1963 (RA 2011)	1% to 50%
		Impact Value	IS: 2386 (Part-4)- 1963 (RA 2011)	5% to 50%
		Sieve Analysis	IS: 2386 (Part -1)- 1963 (RA 2011)	4.75 mm to 100 mm
		Water Absorption	IS: 2386 (Part -3)- 1963 (RA2011)	1% to 25%
		specific Gravity	IS:2386 (Part -3)- 1963 (RA 2011)	1 to 4
		10% Fines Value	IS:2386(Part -4)- 1963 (RA 2011)	100 KN to 500 KN
		Deleterious Material	IS:2386(Part -1)- 1963 (RA 2011)	0 to 20%
		Soundness	IS:2386(Part -5)-1963 (RA 2011)	0.2% to 20%
2.	**Fine Aggregate**	Bulk Density	IS: 2386 (Part -3)-1963 (RA 2011)	0.5 kg/l to 2 kg/l
		Sieve Analysis	IS: 2386 (Part -1)- 1963 (RA 2011)	150 µm to 4.75mm
		Water Absorption	IS: 2386 (Part -3)- 1963 (RA 2011)	1% to 25%
		specific Gravity	IS:2386 (Part -3)- 1963 (RA 2011)	1 to 4
		Deleterious Material	IS:2386(Part -1)- 1963 (RA 2011)	0 to 20%
		Silt content	IS:2386(Part -1)- 1963 (RA 2011)	0 to 20%
		Soundness	IS:2386(Part -5)-1963 (RA 2011)	0.2% to 20%

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3.	**Cement / Hydraulic Cement/ Portland Pozzolana Cement**	Consistency	IS: 4031 (Part -4)-1988 (RA 2009)	10% to 35%
		Density/Sp. Gravity	IS: 4031 (Part -11)-1988 (RA 2009)	1.8 g/cm³ to 3.8 g/cm³
		Fineness (Blain Air Permeability Test)	IS:4031(Part -2)-1999 (RA 2008)	190 m²/kg to 400 m²/kg
		Soundness (Le Chatelier)	IS:4031(Part -3)-1988 (RA 2014)	0.5 mm to 10 mm
		Soundness (Autoclave)	IS:4031(Part -3)1988 (RA 2009)	0.02% to 10%
		Initial Setting Time	IS:4031(Part -5)1988 (RA 2009)	30 minutes to 300 minutes
		Final Setting Time	IS:4031(Part -5)1988 (RA 2009)	30 minutes to 600 minutes
		Compressive Strength	IS:4031(Part -6) 1988 (RA 2009)	5 MPa to 100 MPa
		Fineness by Dry sieving (90 µm)	IS:4031 (Part -1)-1996 (RA 2016)	1.0% to 20%
4.	**Building Bricks/ Fly Ash Lime Bricks**	Compressive Strength	IS: 3495-2002 (Part -1) (RA 2007)	5 N/mm^2 to 50 N/mm^2
		Dimensions Length Width height	IS: 1077-2002 (RA 2007)	 50 mm to 5000 mm 50 mm to 2500 mm 50 mm to 2500 mm
		Efflorescence	IS: 3495-2002 (Part -3) (RA 2007)	Qualitative
		Water Absorption	IS: 3495-2002 (Part -2) (RA 2007)	1% to 40%
5.	**Concrete Cube**	Compressive Strength	IS:516-1959 (RA 2008)	5 N/mm^2 to 100 N/mm^2
6.	**Bentonite**	Moisture	IS:6186-1997 (RA 2003)	1% to 50%

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7.	**Paver Block**	Water Absorption	IS:15658(Annex. C)2006	1% to 40%
		Dimension (Thickness)	IS:15658(Annex. B)2006	50 mm to 200 mm
		Compressive Strength	IS:15658(Annex. D)2006	5 N/mm^2 to 100N/mm^2
		Abrasive Wear	IS:15658 (Annex. E)2006	1000 mm^2 to 2000 mm^2
8.	**ACC Block**	Block Density	IS:6441(Part -1)1972	300 kg/m^3 to 1000 kg/m^3
		Dimension Length Width Height	IS:2185(Part -3)1984	 100 mm to 1000 mm 100 mm to 500 mm 100 mm to 500 mm
		Compressive Strength	IS:6441(Part -5)1972	0.5 N/mm^2 to 8 N/mm^2
9.	**Fly Ash**	Fineness by blaine Air	IS: 1727-1967 (RA 2008)	1% to 34%
		Soundness by Autoclave	IS: 1727-1967 (RA 2008)	0.5mm to 4mm
		Comparative Compressive strength	IS: 1727-1967 (RA 2008)	20% to 100%
		Particle retained an 45µ sieve (wet sieving)	IS: 1727-1967 (RA 2008)	0 to 90%
10.	**Bitumen**	Specific gravity	IS: 1202-1978	0.50 to 1.50
		Flash point	IS: 1448 (Part -9)-2013	25°c to 400°c
		Softening point	IS: 1205-1978	30°c to 150°c
		Penetration test	IS: 1203-1978	4(1/10) mm to 400(1/10) mm
		Ductility test	IS: 1208-9788	30 mm to 1000 mm
		Loss in heating	IS:1212-1983	0.1% to 10%
		Matter soluble in TCE	IS: 1216-1978	0.1% to 100%
11.	**Pressed ceramic / vitrified tiles**	Water absorption	IS: 13630(Part -2)-2006 (RA 2012)	0.1% to 30%
		Modules of rupture Breaking Strength	IS: 1360 (Part -6)-2006 (RA 2012)	1 N/mm^2 to 60 N/mm^2
		Determination of chemical resistance	IS: 13630 (Part -7)-2006 (RA 2012)	Qualitative

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		Crazing Resistance	IS: 13630 (Part -9)-2006 (RA2012)	Qualitative
		Linear thermal Expansion	IS: 13630 (Part -4)-2006 (RA 2012)	0.01 mm to 10 mm
		Moisture expansion	IS: 13630 (Part -3)-2006 (RA 2012)	0.01 mm to 10 mm
		Scratch Hardness of surface	IS:13630 (Part -13) -2006 (RA 2012)	2 mohs to 9 mohs
12.	**Cement concrete flooring Tiles/ Chequered cement concrete Tiles**	Water Absorption	IS: 13801-2013	1.0% to 30%
		Wet Transverses	IS: 13801-2013	0.1 N/mm^2 to 15 N/mm^2
		Resistance to wear	IS: 13801-2013	0.1 mm to 30 mm
		Dimension	IS: 13801-2013	1 mm to 300 mm
III.	**SOIL & ROCK**			
1.	**Soil**	Heavy Compaction Maximum Dry Density Optimum Moisture Content	IS:2720(Part -8)-1983 (RA 2008)	 1.0 g/cm³ to 2.5 g/cm³ 1.0% to 20%
		Light Compaction Maximum Dry Density Optimum Moisture Content	IS:2720(Part -7)-1983 (RA 2008)	 1.0 g/cm³ to 2.5 g/cm³ 5% to 20%
		Plastic limit	IS:2720(Part -5) 1985	5% to 30%
		Liquid Limit (Casagrande Method)	IS:2720(Part -5)1985	5% to 100%
		Grain Size Analysis	IS:2720(Part -4)1985 (RA 2006)	0 to 100%
		Free swell index	IS:2720(Part -40)-1977 (RA 2002)	0 to 100%

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		California Bearing Ratio Value	IS:2720(Part -16)-1987 (RA 2002)	0 to 20%
		Degree of Compaction	IS:2720((Part -6)-1972 (RA 2001) IS:2720((Part -7)-1980 (RA 2011)	0 to 100%
		Moisture Content (Water Content)	IS:2720(Part -2)1973 (RA 2010)	5% to 50%
		Specific Gravity	IS:2720(Part -2)1973 (RA 2010)	1 to 4
		Shear Test	IS: 2720(Part -13)1986 (RA 2011)	Ø: 5° to 50° C: 0 to 1 kg/cm^2