Udyog Vihar, Phase-VI, Sector-37, Gurgaon, Haryana

Accreditation Standard ISO/IEC 17025: 2005

Iti Saxena

Convenor

Discipline Chemical Testing Issue Date 25.07.2016

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S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
I.	SOIL AND ROCK			
1.	Soil	pH Value	IS 2720 (Part 26): 1987 (RA 2007)	2 to12
		Total Soluble Sulphate	IS 2720 (Part 27): 1977 (RA 2005)	0.05 % to 2 %
		Calcium Carbonate	IS 2720 (Part 23): 1976 (RA 2005)	0.1 % to 15 %
		Organic Matter	IS 2720 (Part 22): 1972 (RA 2006)	0.01 % to 5 %
П.	WATER	Total Soluble Soild	IS 2720 (Part 21): 1973 (RA 2007)	0.01 % to 5 %
1.	Water Drinking/ Surface	Acidity	IS 3025 (Part 22): 1986 (RA 2003)	2 mg/l to 1000 mg/l
		Turbidity	IS 3025 (Part 10): 1984 (RA 2006)	1 NTU to 1000 NTU
		Sulphates	IS 3025 (Part 24): 1986 (RA 1992)	5 mg/l to 1000 mg/l
		Volatile Residue	IS 3025 (Part 18): 1984 (RA 2002)	10 mg/l to 2500 mg/l
		Total Hardness as CaCO ₃	IS 3025 (Part 21): 1983 (RA 2002)	10 mg/l to 2500 mg/l
		Fixed Residue	IS 3025 (Part 18): 1984 (RA 2002)	10 mg/l to 5000 mg/l

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	Water Drinking/ Surface	Suspended matter	IS 3025 (Part 17): 1984 (RA 2002)	10 mg/l to 5000 mg/l
	Surface	Alkalinity	IS 3025 (Part 23): 1986 (RA 2003)	5 mg/l to 1000 mg/l
		Chlorides as CI	IS 3025 (Part 32): 1988 (RA 2003)	2 mg/l to 2500 mg/l
		Residual free Chlorine	IS 3025 (Part 26): 1986 (RA 2003)	0.2 mg/l to 50 mg/l
		Colour	IS 3025 (Part 4): 1983 (RA 2006)	5 Unit to 50 Unit
		Iron as Fe	IS 3025 (Part 53): 2003 (RA 2009)	0.01 mg/l to 30 mg/l
		pH Value	IS 3025 (Part 11): 1983 (RA 2002)	2 mg/l to 12 mg/l
2.	Construction Water	Acidity	IS 456: 2000 / IS 3025 (Part 22): 1986 (RA 2003)	0.1 to 20 ml of 0.02 N NaOH
		Sulphates as SO ₃	IS 456: 2000 / IS 3025 (Part 24): 1986 (RA 1992)	5 mg/l to 1000 mg/l
		Organic (Volatile Solids)	IS 456: 2000 / IS 3025 (Part 18): 1984 (RA 2002)	10 mg/l to 2500 mg/l
	Construction	Inorganic (fixed solids)	IS 456: 2000 /	10 mg/l to 5000 mg/l

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Water		IS 3025 (Part 18): 1984 (RA 2002)	
	Suspended matter	IS 456: 2000 / IS 3025 (Part 17): 1984 (RA 2002)	10 mg/l to 5000 mg/l
	Alkalinity	IS 456: 2000 / IS 3025 (Part 23): 1986 (RA 2003)	1 ml to 50 ml of 0.02 N H_2SO_4
	Chlorides as CI	IS 456: 2000 / IS 3025 (Part 32): 1988 (RA 2003)	2 mg/l to 2500 mg/l
	pH Value	IS 456: 2000 / IS 3025 (Part 11): 1983 (RA 2002,2003)	2 to 12
BUILDING MATE	RIALS		
Cement	Silica as SiO ₂	IS 4032: 1985 (RA 2014)	10 % to 40 %
	Total loss on Ignition	IS 4032: 1985 (RA 2014)	0.1 % to 10 %
	Insoluble Residue	IS 4032: 1985 (RA 2014)	0.5 % to 45 %
	Sulphate as SO ₃	IS 4032: 1985 (RA 2014)	0.2 % to 5 %
Cement	Calcium Oxide as CaO	IS 4032: 1985 (RA 2014)	20 % to 70 %
	Magnesia as MgO	IS 4032: 1985 (RA 2014)	0.2 % to 10 %
	Alumina as A _{l2} O ₃	IS 4032: 1985 (RA 2014)	1 % to 10 %
	Material of Test Water BUILDING MATE Cement	Water Suspended matter Alkalinity Chlorides as CI pH Value BUILDING MATERIALS Cement Silica as SiO ₂ Total loss on Ignition Insoluble Residue Sulphate as SO ₃ Cement Calcium Oxide as CaO Magnesia as MgO	Material of Test against which tests are performed Water IS 3025 (Part 18): 1984 (RA 2002) Suspended matter IS 456: 2000 / IS 3025 (Part 17): 1984 (RA 2002) Alkalinity IS 456: 2000 / IS 3025 (Part 23): 1986 (RA 2003) Chlorides as CI IS 456: 2000 / IS 3025 (Part 32): 1988 (RA 2003) pH Value IS 456: 2000 / IS 3025 (Part 11): 1983 (RA 2002, 2003) BUILDING MATERIALS IS 4032: 1985 (RA 2014) Cement Silica as SiO2 IS 4032: 1985 (RA 2014) Insoluble Residue IS 4032: 1985 (RA 2014) Sulphate as SO3 IS 4032: 1985 (RA 2014) Cement Calcium Oxide as CaO IS 4032: 1985 (RA 2014) Magnesia as MgO IS 4032: 1985 (RA 2014)

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	Iron Oxide as Fe ₂ O ₃	IS 4032: 1985 (RA 2014)	1 % to 10 %
	Total Chloride Content	IS 12423: 1988 (RA 2014)	0.005 % to 1 %
	Total Alkalies as Na ₂ O	IS 4032: 1985 (RA 2014)	0.01 % to 2 %
	Potassium as K ₂ O	IS 4032: 1985 (RA 2014)	0.01 % to 2 %
Aggregate	Alkali aggregate reactivity- Reduction in alkalinity	IS 2386 (Part 7): 1963 (RA 2011)	5 Millimoles/l to 200 Millimoles/l
	Alkali Aggregate Reactivity- Dissolved Silica	IS 2386 (Part 7): 1963 (RA 2011)	5 Millimoles/l to 80 Millimoles/l
	Chloride	IS 12423: 1988 (RA 2014)	0.001 % to 0.1 %
	Sulphate	IS 4032: 1985 (RA 2014)	0.01 % to 1 %
Admixture	Dry material content	IS 9103: 1999 (RA 2013)	10 % to 50 %
	Ash content	IS 9103: 1999 (RA 2013)	2 % to 20 %
	Relative density	IS 9103: 1999 (RA 2013)	1 to 1.5
	Chloride content	IS 6925: 1973 (RA 2013)	0.001 % to 1 %
	pH value	IS 9103: 1999 (RA 2013)	2 to 12
Water Proffing	Chloride Content	IS 6925: 1973 (RA 2013)	0.002 % to 2 %
Flyash	Total Loss on Ignition	IS 1727: 1967 (RA 2013)	0.1 % to 10 %
	Silicon dioxide (SiO ₂)	IS 1727: 1967 (RA 2013)	15.0 % to 70.0 %
	Aggregate Admixture Water Proffing	Iron Oxide as Fe ₂ O ₃ Total Chloride Content Total Alkalies as Na ₂ O Potassium as K ₂ O Alkali aggregate reactivity- Reduction in alkalinity Alkali Aggregate Reactivity- Dissolved Silica Chloride Sulphate Admixture Dry material content Ash content Relative density Chloride content pH value Water Proffing Chloride Content Total Loss on Ignition	Iron Oxide as Fe ₂ O ₃

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		Combined Aluminium oxide (Al ₂ O ₃) plus Iron oxide (Fe ₂ O ₃)	IS 1727: 1967 (RA 2013)	15 % to 50 %
		Magnesium Oxide (MgO)	IS 1727: 1967 (RA 2013)	0.20 % to 7.0 %
		Sulphate as (SO ₃)	IS 1727: 1967 (RA 2013)	0.1 % to 10 %
		Alkalis Na ₂ O	IS 4032: 1985 (RA 2014)	0.005 % to 2 %
		Total Chloride Content	IS 12423: 1988 (RA 2014)	0.01 % to 1 %
9.	Cement Concrete	Sulphate as (SO ₃)	IS 4032: 1985 (RA 2014)	0.1 % to 5 %
		Total Soluble Chloride	IS 14959 (Part 2) (RA 2011)	0.001 % to 1 %
10.	Bitumen	Solubility in trichloroethylene	IS 1216: 1978 (RA 2014)	80 % to 100 %
		Water content	IS 1211: 1978 (RA 2014)	0.01 % to 2 %
11.	Flooring Tiles	Resistance to chemical	IS 13630 (Part 8): 2006 (RA 2012)	Qualitative
IV.	METALS & ALLO	YS		
1.	Ferrous Material Steel, Stainless Steel	Carbon	IS 228 (Part 1): 1987 (RA 2007)	0.05 % to 1.0 %
	Steel	Sulphur	IS 228 (Part 9): 1989 (RA 2004)	0.01 % to 0.1 %
	Ferrous Material Steel, Stainless Steel	Phosphorus	IS 228 (Part 3): 1987 (RA2008)	0.01 % to 0.1 %
	Sicci	Manganese	IS 228 (Part 2): 1987 (RA 2002)	0.1 % to 1.5 %

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		Silicon	IS 228 (Part 8): 1989 (RA2004)	0.1 % to 1.0 %
		Nickel	IS 228 (Part 5): 1987 (RA 2009)	0.1 % to 20 %
		Chromium	IS 228 (Part 6): 1987 (RA 2002)	0.1 % to 25 %