

Laboratory	Geo Engineering Services, SDB-66, Adipur, Gandhidham, District Kachchh, Gujarat		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Testing	Issue Date	05.06.2014
Certificate Number	T-3006	Valid Until	04.06.2016
Last Amended on	-	Page	1 of 6

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
1.	MECHANICAL PROPERTIES OF MATERIALS			
1.	STEEL (High Strength Deformed Steel, Bars & Steel Wire, Low Media and High Tensile Structures Steel)	Yield Strength	IS:1608:2005 Reaffirmed 2010	160 N/mm ² - 725 N/mm ²
		Ultimate Strength	IS:1608:2005 Reaffirmed 2010	160 N/mm ² - 725 N/mm ²
		Elongation	IS:1608:2005 Reaffirmed 2010	5 - 30 %
		Sectional Weight	IS:1608:2005 Reaffirmed 2010	0.1 - 10 kg/m
		Bend Test	IS:1599:2012	6 mm - 32mm
II.	BUILDING MATERIALS			
1.	COARSE AGGREGATE	Grading (Sieve Analysis)	IS:2386 (Part-1):1963 Reaffirmed 2011, Amend.4	90 - 0.075 mm
		Flakiness Index	IS:2386 (Part-1):1963 Reaffirmed 2011, Amend.4	1 - 60%
		Elongation Index	IS:2386 (Part-1):1963 Reaffirmed 2011, Amend.4	1 - 60%
		Specific Gravity	IS:2386 (Part-3):1963 Reaffirmed 2011	1.5 - 3.5

Laboratory	Geo Engineering Services, SDB-66, Adipur, Gandhidham, District Kachchh, Gujarat		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Testing	Issue Date	05.06.2014
Certificate Number	T-3006	Valid Until	04.06.2016
Last Amended on	-	Page	2 of 6

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Water Absorption	IS:2386 (Part-3):1963 Reaffirmed 2011	0 - 20 %
		Bulk Density	IS:2386 (Part-3):1963 Reaffirmed 2011	1 - 3 kg/l
		Abrasion Value	IS:2386 (Part-4):1963 Reaffirmed 2011, Amend.3	0 - 50 %
		Impact Value	IS:2386 (Part-4):1963 Reaffirmed 2011, Amend.3	0 - 50 %
		Crushing Value	IS:2386 (Part-4):1963 Reaffirmed 2011, Amend.3	0 - 50 %
2.	FINE AGGREGATE	Grading (Sieve Analysis)	IS:2386 (Part-1):1963 Reaffirmed 2011	90 - 0.075 mm
		Specific Gravity	IS:2386 (Part-3):1963 Reaffirmed 2011	1.5 - 3.5
		Water Absorption	IS:2386 (Part-3):1963 Reaffirmed 2011	0 - 20 %
		Bulk Density	IS:2386 (Part-3):1963 Reaffirmed 2011	1 - 3 kg/l

Laboratory	Geo Engineering Services, SDB-66, Adipur, Gandhidham, District Kachchh, Gujarat		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Testing	Issue Date	05.06.2014
Certificate Number	T-3006	Valid Until	04.06.2016
Last Amended on	-	Page	3 of 6

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
2.	BRICK	Compressive Strength	IS:3495 (Part-1):1992 Reaffirmed 2011	0.5 - 35 N/mm ²
		Water Absorption	IS:3495 (Part-2):1992 Reaffirmed 2011	1 - 40 %
		Sizes and Shapes (Dimensions)	IS:3495:1992 Reaffirmed 2011	25 - 5000 mm
		Efflorescence	IS:3495 (Part-3):1992 Reaffirmed 2011	Qualitative
2.	HARDENED CONCRETE CUBE / CORE	Compressive Strength	IS:516:1959 Reaffirmed 2008, Amend.2	1 - 80 N/mm ²
3.	CONCRETE (FRESH)	Slump Test	IS:1199:1959 Reaffirmed 2004 Clause No.5.1	0 - 300 mm
4.	PAVER BLOCK	Compressive Strength	IS:15658:2006, Annex-D Reaffirmed 2011	1 - 60 N/mm ²
		Water Absorption	IS:15658:2006, Annex-C Reaffirmed 2011	1 – 15 %
5.	CEMENT	Fineness by Blaine's Air Permeability	IS 4031 (Part-2) : 1999 Reaffirmed 2008, Amend.1	100 - 400 m ² /kg
		Soundness	IS 4031 (Part-3) : 1988 Reaffirmed 2009, Amend.2	0.5 - 15 mm

Laboratory	Geo Engineering Services, SDB-66, Adipur, Gandhidham, District Kachchh, Gujarat		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Testing	Issue Date	05.06.2014
Certificate Number	T-3006	Valid Until	04.06.2016
Last Amended on	-	Page	4 of 6

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Consistency	IS 4031 (Part-4) :1988 Reaffirmed 2009, Amend.2	20 - 40 %
		Initial Setting	IS 4031(Part-5) :1988 Reaffirmed 2009, Amend.2	5 - 300 min
		Final Setting	IS 4031(Part-5) :1988 Reaffirmed 2009, Amend.2	30 - 700 min
		Compressive Strength	IS 4031(Part-6) : 1988 Reaffirmed 2009, Amend.3	10 - 70 N/mm ²
		Density	IS 4031(Part-11) : 1988 Reaffirmed 2009	1 - 5 g/cc
6.	BITUMEN	Specific Gravity	IS:1202:1978 Reaffirmed 2009	0.5 - 3.0
		Penetration Test	IS:1203:1978 Reaffirmed 2009	1 - 120 mm
		Softening Point	IS:1205:1978 Reaffirmed 2009	0 - 100 °C
		Ductility	IS:1208:1978 Reaffirmed 2009	1 - 100 cm
		Flow Value Test	ASTM - D 6927 – 2006	1 - 6 mm

Laboratory	Geo Engineering Services, SDB-66, Adipur, Gandhidham, District Kachchh, Gujarat		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Testing	Issue Date	05.06.2014
Certificate Number	T-3006	Valid Until	04.06.2016
Last Amended on	-	Page	5 of 6

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Marshall Stability	ASTM - D 6927 – 2006	5 – 25 kN
		Kinematic Viscosity	IS 1206 (Part-3):1978 Reaffirmed 2009, Amend 02	60 – 1000 cSt
		Absolute Viscosity	IS 1206 (Part-2):1978 Reaffirmed 2009, Amend 02	100 – 8000 poise/s
III. SOIL & ROCKS				
1.	SOIL	Specific Gravity	IS 2720 (Part-3) : 1980 Reaffirmed 2011	1.5 - 3.0
		Grain Size (Sieve) Analysis	IS 2720 (Part-4) : 1985 Reaffirmed 2010	10 mm – 0.075mm
		Atterberg's Limit (Liquid Limit)	IS: 2720 (Part-5):1985 Reaffirmed 2010	10 - 500 %
		Atterberg's Limit (Plastic Limit)	IS: 2720 (Part-5):1985 Reaffirmed 2010	10 - 500 %
		Standard Proctor Light Compaction	IS:2720 (Part-7):1980 Reaffirmed 2011, Amend.02	MDD - 1.4 - 3.0 g/cc OMC - 5 - 30 %
		Modified Proctor Heavy Compaction	IS:2720 (Part-8):1983 Reaffirmed 2010	MDD - 1.4 - 3.0 g/cc OMC – 5 – 30 %
		Free Swell	IS:2720 (Part- 40) 1977 Reaffirmed 2011	5 - 600 % Max.

Laboratory **Geo Engineering Services, SDB-66, Adipur, Gandhidham, District Kachchh, Gujarat**
Accreditation Standard **ISO/IEC 17025: 2005**
Discipline **Mechanical Testing** **Issue Date** **05.06.2014**
Certificate Number **T-3006** **Valid Until** **04.06.2016**
Last Amended on **-** **Page** **6 of 6**

S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Laboratory CBR	IS:2720 (Part-5):1985 Reaffirmed 2010	1 – 100%
2.	ROCK	Water Content	IS:13030:1991 Reaffirmed 2010	0.1 - 50 %
		Porosity	IS:13030:1991 Reaffirmed 2010	0.1- 50 %
		Density	IS:13030:1991 Reaffirmed 2010	1 - 4 g/cc
		Unconfined Compressive Strength	IS:9143:1979 Reaffirmed 2010	50- 200N/mm ²

-X-X-X-X-X-X-X-X-X-X-X-X-