Laboratory	**P. K. Enterprises, NH-72, Shamsherpur, Paonta Sahib, Himachal Pradesh**
Accreditation Standard	**ISO/IEC 17025: 2005**
Certificate Number	**TC-6757**
Validity	**12.01.2018 to 11.01.2020**

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		MECHANICAL TESTING		
I.	**BUILDING MATERIAL**			
1.	**Cement (OPC/PPC)**	Fineness by Air Permeability (Blaine)	IS 4031 (Part 2): 1999 (RA 2013)	100 m²/kg to 600 m²/kg
		Fineness by Dry Sieving	IS 4031 (Part 1): 1996 (RA 2011)	0.05 % to 10 %
		Compressive Strength	IS 4031 (Part 6): 1988 (RA 2014)	10 N/mm²/ to 80 N/mm²/
		Consistency	IS 4031 (Part 4): 1988 (RA 2014)	10 % to 40 %
		Setting Time	IS 4031 (Part 5): 1988 (RA 2014)	
		Initial		5 min to 300 min
		Final		30 min to 700 min
		Soundness by Le-Chatelier	IS 4031 (Part 3): 1988 (RA 2014)	0.5 mm to 10 mm
		Soundness by Autoclave	IS 4031 (Part 3): 1988 (RA 2014)	0.01 % to 2 %
		Density	IS 4031 (Part 11): 1988 (RA 2014)	2 g/cc to 3.5 g/cc
2.	**Coarse Aggregate**	Flakiness Index	IS 2386 (Part 1): 1963 (RA 2011)	1 % to 60 %
		Elongation Index	IS 2386 (Part 1): 1963 (RA 2011)	1 % to 60 %
		Bulk Density	IS 2386 (Part 3): 1963 (RA 2011)	2 Kg/L to3 Kg/L
		Specific Gravity	IS 2386 (Part 3): 1963 (RA 2011)	1 to 5
		Water Absorption	IS 2386 (Part 3): 1963 (RA 2011)	0.1 % to 6.0 %
		Crushing Value	IS 2386 (Part 4): 1963 (RA 2011)	5 % to 60 %

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		10% Fine Value	IS 2386 (Part 4): 1963 (RA 2011)	5 Ton to 40 Ton
		Abrasion Value, Los Angeles	IS 2386 (Part 4): 1963 (RA 2011)	5 % to 60 %
3.	**Coarse Aggregate**	Sieve Analysis	IS 2386 (Part 1): 1963 (RA 2011)	2.35mm to 80mm
		Impact Value	IS 2386 (Part 4): 1963 (RA 2011) Method B	5 % to 60 %
		Soundness by Na2SO4	IS 2386 (Part 5): 1963 (RA 2011)	0.5 % to 25 %
		Deleterious Materials - Clay and Lumps	IS 2386 (Part 2): 1963 (RA 2011)	0.1 % to 5 %
		Deleterious Materials - Material Finer Than 75µ	IS 2386 (Part 2): 1963 (RA 2011)	0.1 % to 10 %
		Deleterious Materials - Coal and lignite	IS 2386 (Part 2): 1963 (RA 2011)	0.1 % to 2 %
4.	**Fine aggregates**	Bulk Density	IS 2386 (Part 3): 1963 (RA2011)	2 Kg/Lt. to 3 Kg/Lt.
		Specific Gravity	IS 2386 (Part 3): 1963 (RA 2011)	1 to 5
		Water Absorption	IS 2386 (Part 3): 1963 (RA 2011)	0.1 % to 6.0 %
		Bulking of Fine Aggregates	IS 2386 (Part 3): 1963 (RA 2011)	1 % to 25 %
		Sieve Analysis	IS 2386 (Part 1): 1963 (RA 2011)	0 to 100 % (75 mic. to 4.75 mic.)
		Deleterious Materials - Clays & Lumps	IS 2386 (Part 2): 1963 (RA 2011)	0.1 % to to 5 %
		Deleterious Materials - Material finer than 75 µ	IS 2386 (Part 2): 1963 (RA 2011)	0.1 % to 10 %
		Deleterious Materials - Coal and Lignite	IS 2386 (Part 2): 1963 (RA 2011)	0.1 % to 2 %
		Soundness by Na_2SO_4	IS 2386 (Part 5): 1963 (RA 2011)	0.5 % to 25 %

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5.	**Building Bricks / Fly Ash Bricks**	Compressive Strength	IS 3495 (Part 1): 1992 (RA 2011)	5 N/mm² to 40 N/mm²
		Water Absorption	IS 3495 (Part 2): 1992 (RA 2011)	1 % to 40 %
		Efflorescence	IS 3495 (Part 3): 1992 (RA 2011)	Qualitative
		Dimensions	IS 1077: 1992 (RA 2011)	L: 4000 to 5000 mm W: 2300 to 2500 mm
			IS 13757: 1993 (RA 2011)	H: 1300 to 1500 mm
6.	**Concrete Paver Blocks**	Dimension	IS 15658: 2006 (RA 2011)	10 mm to 300 mm
		Compressive Strength	IS 15658: 2006 (RA 2011)	5 N/mm^2 to 80 N/mm^2
		Water Absorption	IS 15658: 2006 (RA 2011)	1 % to 15 %
7.	**Concrete Cubes**	Compressive Strength	IS 516: 1959 (RA 2011)	0.5 Mpa to 100 Mpa
8.	**Bitumen**	Softening Point	IS 1205: 1978, Amend.1 (RA 2009)	15 ºC to 100 ºC
		Penetration	IS 1205: 1978, Amend.1(RA 2009)	40 to100
		Ductility	IS 1208: 1978, Amend.2 (RA 2009)	5 cm to 100 cm
		Flash/fire Point	IS 1209: 1978, Amend.1 (RA 2009)	50 ºC to 400 ºC
		Specific Gravity	IS 1202: 1978, Amend.1 (RA 2009)	0.9 to 2
II.	**SOIL & ROCK TESTING**			
1.	**Stone**	Water Absorption	IS 13030: 1991(RA 2016)	0.01 % to 10 %
		Dry Density	IS 13630: 1991(RA 2016)	2.0 g/cm^3 to 3.0 g/cm^3
2.	**Soil**	Water Content	IS 2720 (Part 2): 1973 (RA 2010)	0.1 % to 30 %
		Light Compaction MDD	IS 2720 (Part 7): 1980 (RA 2015)	1 g/cm^3 to 3 g/cm^3 10 % to 35 %
		Heavy Compaction MDD	IS 2720 (Part 8): 1983 (RA 2015)	1 g/cm^3 to 5 g/cm^3 10 % to 35 %

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Convenor

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Program Director

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		Plastic Limit	IS 2720 (Part 5): 1985 (RA 2010)	Nil to 50 %
		Liquid Limit	IS 2720 (Part 5): 1985 (RA 2010)	10 % to 80 %
		Specific Gravity	IS 2720(Part 3 /Sec I): 1980 (RA 2011)	1.5 to 2.8
		Grain Size Analysis	IS 2720 (Part 4): 1985 (RA 2015)	0 to 100 % (40 mm to 75 u)
		California Bearing Ratio(CBR):	IS 2720 (Part 16): 1987 (RA 2011)	1 % to 60 %
		Shrinkage Limit	IS 2720 (Part 6): 1983 (RA 2011)	0.5 % to 100 %

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