

**Laboratory** Construction Development & Innovation Centre (CDIC),  
Nuvoco Vistas Corporation Limited, Plot No.13, Unit No 42,  
Marol Co-Operative Industrial Estate, Sag Baug Road, Marol,  
Andheri (East), Mumbai, Maharashtra

**Accreditation Standard** ISO/IEC 17025: 2005

**Certificate Number** TC-7607

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**Validity** 25.07.2018 to 24.07.2020

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
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**MECHANICAL TESTING**

I.	<b>BUILDINGS MATERIALS</b>			
1.	<b>Cement (OPC -43/53 , PPC,PSC Grade, #GGBS)</b>	Consistency	IS 4031 (Part 4)-1988, RA 2014	15% to 50%
		Initial Setting Time	IS 4031 (Part 5)-1988, RA 2014	30 Min. to 300 Min.
		Final Setting Time	IS 4031 (Part 5)-1988, RA 2014	100 Min. to 650 Min.
		Compressive Strength	IS 4031 (Part 6)-1988, RA 2014	10 N/mm <sup>2</sup> to 75 N/mm <sup>2</sup>
		Soundness by Le- Chatelier method	IS 4031 (Part 3)-1988, RA 2014	0.1 mm to 10 mm
		Fineness by Blaine's Method	IS 4031 (Part 2)-1996, RA 2013	100 m <sup>2</sup> /kg to 500 m <sup>2</sup> /kg
		Density	IS 4031 (Part 11)-1988, RA 2014	1.50 g/cc to 3.80 g/cc
2.	<b>Fine Aggregate</b>	Sieve Analysis	IS 2386 (Part 1)-1963, RA 2016	10 mm to 75 µm (0 to 100%)
		Dry Loose Bulk Density	IS 2386 (Part 3)-1963, RA 2016	1.0 kg/l to 2.5 kg/l
		Rodded Bulk Density	IS 2386 (Part 3)-1963, RA 2016	1.0 kg/l to 2.5 kg/l
		Specific Gravity	IS 2386 (Part 3)-1963, RA 2016	2.0 to 3.5
		Water absorption	IS 2386 (Part 3)-1963, RA 2016	1% to 10%
		Deleterious Material Finer than 75 micron	IS 2386 (Part 2)-1963, RA 2011	0.2% to 10%

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3.	<b>Coarse Aggregate</b>	Sieve Analysis	IS 2386 (Part 1)-1963, RA 2016	80 mm to 2.36 mm (0 to 100%)
		Dry Loose Bulk Density	IS 2386 (Part 3)-1963, RA 2016	1.0 kg/l to 2.0 kg/l
		Rodded Bulk Density	IS 2386 (Part 3)-1963, RA 2016	1.0 kg/l to 2.0 kg/l
		Flakiness index	IS 2386 (Part 3)-1963, RA 2016	2% to 40%
		Elongation Index	IS 2386 (Part 1)-1963, RA 2016	2% to 40%
		Impact Value	IS 2386 (Part 4)-1963, RA 2016	5% to 60%
		Crushing Value	IS 2386 (Part 4)-1963, RA 2016	5% to 60%
		Los Angeles Abrasion Value	IS 2386 (Part 4)-1963, RA 2016	5% to 60%
		Specific Gravity	IS 2386 (Part 3)-1963, RA 2016	2.0 to 3.5
		Water Absorption	IS 2386 (Part 3)-1963, RA 2016	0.5% to 10%
4.	<b>Burnt Clay Brick</b>	Dimension	IS 1077 : 1992 (RA : 2011)	75 mm to 5000 mm
		Compressive Strength	IS 3495 (Part 1) : 1992 (RA 2011)	1 N/mm <sup>2</sup> to 35 N/mm <sup>2</sup>
		Water absorption	IS 3495 (Part 2) : 1992 (RA 2011)	0.5% to 20%
		Efflorescence	IS 3495 (Part 3) : 1992 (RA 2011)	Qualitative
5.	<b>Paver Block</b>	Compressive Strength Test	IS 15658 : 2006 (RA : 2011)	10 N/mm <sup>2</sup> to 70 N/mm <sup>2</sup>
		Water Absorption Test	IS 15658 : 2006 (RA : 2011)	0.5% to 5%

Ranjith Kumar  
Convenor

Anuja Anand  
Program Manager

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6.	<b>Concrete</b>	Compressive Strength	IS 516-1959, RA 2013	5 N/mm <sup>2</sup> to 130 N/mm <sup>2</sup>
		Water permeability test	EN 12390 (Part08) : 1991	0.1 mm to 150 mm
		Modulus of elasticity	ASTM C 469 : 2010	30 GPA to 60 GPA
		Flexural Strength	IS 516 : 1959 RA 2013	1 N/mm <sup>2</sup> to 10 N/mm <sup>2</sup>
		RCPT	ASTM C 1202 : 2012	50 °C to 4000 °C
		Drying Shrinkage	ASTM C 152	0.001% to 1.00%
		Water absorption	BS 1881 (Part 122) : 1983 Amd-01	0.5% to 10%
7.	<b>Fly Ash</b>	Fineness Specific Surface-Blaines Air Permeability	IS 1727-1967 (RA 2013)	100 m <sup>2</sup> /kg to 600 m <sup>2</sup> /kg
		Compressive Strength	IS 1727-1967 (RA 2013)	5 N/mm <sup>2</sup> to 60 N/mm <sup>2</sup>
		Specific Gravity	IS 1727-1967 (RA 2013)	1.5 to 2.7
		Soundness by Le- Chatelier method	IS 4031 (Part 3)-1988, RA 2014	0.1 mm to 10 mm
		Initial setting time	IS 1727-1967 (RA 2013)	30 Min.to 300 Min.
		Final Setting time	IS 1727-1967 (RA 2013)	100 Min. to 650 Min.
		8.	<b>Hollow &amp; Solid Block</b>	Dimension (Length)
Compressive Strength	IS 2185 (Part 01) :2005 (RA 2015) ANNEX D			1 N/mm <sup>2</sup> to 15 N/mm <sup>2</sup>
Water Absorption	IS 2185 (Part 01) :2005 (RA 2015) ANNEX E			0.5% to 10 %
Block Density Test	IS 2185 (Part 01) :2005 (RA 2015) ANNEX C			500 kg/m <sup>3</sup> to 2500 kg/m <sup>3</sup>
Drying Shrinkage test	IS 2185 (Part 01) :2005 (RA 2015) ANNEX F			0.01% to 2.0%
Moisture Movement Test	IS 2185 (Part 01) :2005 (RA 2015) ANNEX G			0.01% to 0.1%

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9.	<b>Autoclaved Aerated Cellular Concrete Block</b>	Dimension	IS 2185 (Part 03) :1989 (RA 2015)	75 mm to 1000 mm
		Compressive Strength	IS 6441 (Part 05) : 1989 (RA 2017)	1 N/mm <sup>2</sup> to 25 N/mm <sup>2</sup>
		Block Density Test	IS 6441 (Part 01) :1972 (RA 2017)	500 kg/m <sup>3</sup> to 2500 kg/m <sup>3</sup>
		Drying Shrinkage test	IS 6441 (Part 02) :2005 (RA 2015)	0.01% to 2.0%