

Laboratory **Quality Control Laboratories, Chanderia Cement Works, P.O. Cement Factory, Madhav Nagar, Chittorgarh, Rajasthan**

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

Certificate Number **TC-5470 (in lieu of T-0909 & T-0910)**

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Validity **13.04.2017 to 12.04.2019**

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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### CHEMICAL TESTING

I. BUILDING MATERIALS				
1.	Ordinary Portland Cement 43 Grade	LOI	IS:4032:1985 (RA 2005)	0.1% to 8.0%
		IR	IS:4032:1985 (RA 2005)	0.1% to 8.0%
		SO <sub>3</sub>	IS:4032:1985 (RA 2005)	0.1% to 6.0%
		SiO <sub>2</sub>	IS:4032:1985 (RA 2005)	15.0% to 28.0%
		Al <sub>2</sub> O <sub>3</sub>	IS:4032:1985 (RA 2005)	0.2% to 10.0%
		Fe <sub>2</sub> O <sub>3</sub>	IS:4032:1985 (RA 2005)	0.1% to 6.0%
		CaO	IS:4032:1985 (RA 2005)	55.0% to 68.0%
		MgO	IS:4032:1985 (RA 2005)	0.1% to 10.0%
		Chloride	IS:4032:1985 (RA 2005)	0.005% to 1.0%
2.	Ordinary Portland Cement 53 Grade	LOI	IS:4032:1985 (RA 2005)	0.1% to 8.0%
		IR	IS:4032:1985 (RA 2005)	0.1% to 8.0%
		SO <sub>3</sub>	IS:4032:1985 (RA 2005)	0.1% to 6.0%
		SiO <sub>2</sub>	IS:4032:1985 (RA 2005)	15.0% to 28.0%
		Al <sub>2</sub> O <sub>3</sub>	IS:4032:1985 (RA 2005)	0.2% to 10.0%
		Fe <sub>2</sub> O <sub>3</sub>	IS:4032:1985 (RA 2005)	0.1% to 6.0%
		CaO	IS:4032:1985 (RA 2005)	55.0% to 68.0%
		MgO	IS:4032:1985 (RA 2005)	0.1% to 10.0%
		Chloride	IS:4032:1985 (RA 2005)	0.005% to 1.0%
3.	Portland Pozzolana Cement (Flyash based)	LOI	IS:4032:1985 (RA 2005)	0.1% to 10%
		IR	IS:4032:1985 (RA 2005)	15.0% to 40.0%
		SO <sub>3</sub>	IS:4032:1985 (RA 2005)	0.1% to 6.0%
		MgO	IS:4032:1985 (RA 2005)	0.1% to 10.0%
				Chloride

**Ajay Sharma**  
Convenor

**N. Venkateswaran**  
Program Director

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**MECHANICAL TESTING**

<b>I. BUILDING MATERIALS</b>				
<b>1.</b>	<b>Ordinary Portland Cement 43 Grade</b>	Fineness	IS: 4031 (Part 2):1999 (RA 2013)	(100 to 800) m <sup>2</sup> /kg
		Standard Consistency	IS: 4031 (Part 4):1988 (RA. 2014)	(10 to 35)%
		Soundness by Le-chatelier expansion	IS: 4031 (Part 3) :1988 (RA 2014)	(0.5 to 30) mm
		Autoclave expansion	IS: 4031 (Part 3) :1988 (RA 2014)	(0.01 to 2.00)%
		Initial Setting Time	IS: 4031 (Part 5) :1988 (RA. 2014)	(15 to 250) minutes
		Final Setting Time	IS: 4031 (Part 5) :1988 (RA. 2014)	(30 to 600) minutes
		Compressive Strength	IS: 4031 (Part 6) :1988 (RA. 2014)	(14 to 80) MPa
<b>2.</b>	<b>Ordinary Portland Cement 53 Grade</b>	Fineness	IS: 4031 (Part 2):1999 (RA 2013)	(100 to 800) m <sup>2</sup> /kg
		Standard Consistency	IS: 4031 (Part 4):1988 (RA. 2014)	(10 to 35)%
		Soundness by Le-chatelier expansion	IS: 4031 (Part 3):1988 (RA 2014)	(0.5 to 30) mm
		Autoclave expansion	IS: 4031 (Part 3) :1988 (RA 2014)	(0.01 to 2.00)%
		Initial Setting Time	IS: 4031 (Part 5) :1988 (RA. 2014),	(15 to 250) minutes
		Final Setting Time	IS: 4031 (Part 5) :1988 (RA. 2014)	(30 to 600) minutes
		Compressive Strength	IS: 4031 (Part 6) :1988 (RA 2014)	(14 to 80) MPa
<b>3.</b>	<b>Portland Pozzolana Cement (Flyash based)</b>	Fineness	IS: 4031 (Part 2):1999 (RA 2013)	(100 to 800) m <sup>2</sup> /kg

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		Compressive Strength	IS: 4031 (Part 6) :1988 (RA. 2014)	(14 to 80) MPa

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