

Laboratory Quality Control Laboratory, Ultra Tech Cement Limited, A.P. Cement Works, Bhogasamudram (Vil.), Tadipatri (Md.), Anantapur (Dist.), Andhra Pradesh

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-7727 (in lieu of T-0948, T-0949)

Page 1 of 3

Validity 29.09.2018 to 28.09.2020

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	
CHEMICAL TESTING					
I.	BUILDING MATERIAL				
1.	Cement OPC43, OPC53, PPC, PSC	By XRF method	IS 12803 : 1989 (RA2013) [Pressed Pellet Method]		
		SiO ₂		18.00% to 36.00%	
		Al ₂ O ₃		3.00% to 15.00%	
		Fe ₂ O ₃		2.00% to 8.00%	
		CaO		35.00% to 68.00%	
		MgO		0.20% to 10.00%	
		SO ₃		0.20% to 3.50%	
		Chloride		0.001% to 0.50%	
		LOI		IS 4032-1985 (RA2014)	0.10% to 5.00%
		IR			0.10% to 40.00%
	Sulphide Sulphur		0.05% to 2.00%		
2.	Clinker	By XRF method	IS 12803 : 1989 (RA2013) [Pressed Pellet Method]		
		SiO ₂		18.00% to 34.00%	
		Al ₂ O ₃		3.00% to 15.00%	
		Fe ₂ O ₃		2.00% to 8.00%	
		CaO		35.00% to 68.00%	
		MgO		0.50% to 10.00%	
		SO ₃		0.20% to 3.50%	
		Chloride		0.001% to 0.50%	
		Free Lime		IS 4032-1985 (RA2014) Cl.5.4 (Ethylene-Glycol Method)	0.20% to 5.00%
		LOI		IS 4032-1985 (RA2014)	0.10% to 5.00%
	IR	IS 4032-1985 (RA2014)	0.10% to 35.00%		

Laboratory **Quality Control Laboratory, Ultra Tech Cement Limited, A.P. Cement Works, Bhogasamudram (Vil.), Tadipatri (Md.), Anantapur (Dist.), Andhra Pradesh**

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

Certificate Number **TC-7727 (in lieu of T-0948, T-0949)**

Page 2 of 3

Validity **29.09.2018 to 28.09.2020**

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
II	ORES & MINERALS			
1.	Limestone	By XRF method	IS 12803 : 1989 (RA2013) [Pressed Pellet Method]	
		SiO ₂		5.00% to 30.00%
		Al ₂ O ₃		0.50% to 10.00%
		Fe ₂ O ₃		0.30% to 8.00%
		CaO		30.00% to 49.00%
		MgO		0.30% to 10.00%
		SO ₃	0.10% to 5.00%	

Laboratory **Quality Control Laboratory, Ultra Tech Cement Limited, A.P. Cement Works, Bhogasamudram (Vil.), Tadipatri (Md.), Anantapur (Dist.), Andhra Pradesh**

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

Certificate Number **TC-7727** (in lieu of T-0948, T-0949)

Page 3 of 3

Validity **29.09.2018 to 28.09.2020**

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
<u>MECHANICAL TESTING</u>				
I.	BUILDING MATERIALS			
1.	Cement OPC43, OPC53, PPC, PSC	Normal Consistency	IS 4031 (Part 4) : 1988 (RA 2014)	20.0 % to 50.0 %
		Setting Time-Initial	IS 4031 (Part 5) : 1988 (RA 2014)	10 min. to 450 min.
		Setting Time-Final	IS 4031 (Part 5) : 1988 (RA 2014)	60 min. to 600 min.
		Fineness (By Air Permeability Method)	IS 4031 (Part 2) : 1999 (RA 2013)	150 m ² /kg to 500 m ² /kg
		Soundness By Le-Chatelier Method	IS 4031 (Part 3) : 1988 (RA 2014)	Upto 30.0 mm
		Soundness By Autoclave Method	IS 4031 (Part 3) : 1988 (RA 2014)	Upto 2.0 %
		Compressive Strength	IS 4031 (Part 6) : 1988 (RA 2014)	6.0 MPa to 90.0 MPa
		Drying Shrinkage	IS 4031 (Part 10) : 1988 (RA 2014)	Upto 2.0%
		Specific Gravity	IS 4031 (Part 11) : 1988 (RA 2014)	2.0 to 3.5