



ACC

ACC Limited
Wadi Cement Works

WORK TEST CERTIFICATE



53 Grade Ordinary Portland Cement

Despatched during Week No.	23	From	04/06/19	To	10/06/19
Test Certificate No.	23	Reference No.		WCW/IMS/QA/FM/08	
Dated	09/07/19				

S.N.	Parameters	Results Obtained	Requirement as per IS 269 : 2015 (Variety: OPC 53)
Chemical Composition			
1	Lime Saturation Factor ($\text{CaO} - 0.7 * \text{SO}_3 / (2.8 * \text{SiO}_2 + 1.2 * \text{Al}_2\text{O}_3 + 0.65 * \text{Fe}_2\text{O}_3)$)	0.90	Not greater than 1.02 and not less than 0.80
	Ratio of % Alumina to that of Iron Oxide $\text{Al}_2\text{O}_3 / \text{Fe}_2\text{O}_3$	1.32	Not less than 0.66
	Insoluble Residue (% by mass)	0.70	Not more than 5.0 %
	Magnesia (% by mass)	0.90	Not more than 6.0 %
	Sulphuric Anhydride (% by mass)	3.20	Not More than 3.5 %
	Total loss on Ignition (%)	1.70	Not More than 4.0 %
	Chloride Content (%)	0.015	Not more than 0.1 % for general purpose & not more than 0.05 % for pre-stressed structures
	Physical Analysis		
2	Fineness		
	Blaine's Specific Surface Area (m^2 / kg)	290	Not Less than 225
3	Compressive Strength (MPa)		
	72 ± 1h (3 Days)	36.9	Not less than 27.0
	168 ± 2h (7 Days)	46.8	Not less than 37.0
	672 ± 4h (28 Days) *	59.2	Not less than 53.0
4	Setting Time (Minutes)		
	Initial	135	Not less than 30
	Final	185	Not more than 600
5	Soundness		
	Le-Chatelier Expansion (mm)	1.50	Not more than 10.0
	Auto-Clave Expansion (%)	0.050	Not more than 0.8
6	Normal Consistency (%)	27.50	
	Temp. During Testing ($^{\circ}\text{C}$)	27.00	(27 ± 2) $^{\circ}\text{C}$

The above cement complies with the requirements of IS 269 : 2015 (Variety: OPC 53) for 53 Grade Ordinary Portland Cement

Manager (QA)

Registered Office: Cement House, 121, Maharishi Karve Road, Mumbai - 400020