



ACC

ACC Limited
Wadi Cement Works

WORK TEST CERTIFICATE



53 Grade Ordinary Portland Cement

Despatched during Week No.	35	From	27/08/18	To	02/09/18
Test Certificate No.	35	Reference No.		WCW/IMS/QA/FM/08	
Dated	10/09/18				
S.N.	Parameters	Results Obtained	Requirement as per IS 269 : 2015 (Variety: OPC 53)		
1	Chemical Composition				
	Lime Saturation Factor ($\text{CaO} - 0.7 * \text{SO}_3 / (2.8 * \text{SiO}_2 + 1.2 * \text{Al}_2\text{O}_3 + 0.65 * \text{Fe}_2\text{O}_3)$)	0.88	Not greater than 1.02 and not less than 0.80		
	Ratio of % Alumina to that of Iron Oxide $\text{Al}_2\text{O}_3 / \text{Fe}_2\text{O}_3$	1.25	Not less than 0.66		
	Insoluble Residue (% by mass)	0.70	Not more than 5.0 %		
	Magnesia (% by mass)	1.00	Not more than 6.0 %		
	Sulphuric Anhydride (% by mass)	3.10	Not More than 3.5 %		
	Total loss on Ignition (%)	1.80	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		
2	Physical Analysis				
	Fineness				
3	Blaine's Specific Surface Area (m^2 / kg)	313	Not Less than 225		
	Compressive Strength (MPa)				
	72 ± 1h (3 Days)	38.0	Not less than 27.0		
	168 ± 2h (7 Days)	48.0	Not less than 37.0		
672 ± 4h (28 Days) *	Awaited	Not less than 53.0			
4	Setting Time (Minutes)				
	Initial	120	Not less than 30		
	Final	180	Not more than 600		
5	Soundness				
	Le-Chatelier Expansion (mm)	1.00	Not more than 10.0		
	Auto-Clave Expansion (%)	0.090	Not more than 0.8		
6	Normal Consistency (%)	27.00			
	Temp. During Testing ($^{\circ}\text{C}$)	27.00	$(27 \pm 2)^{\circ}\text{C}$		

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

Manager (QA)