



ACC

ACC Limited
Wadi Cement Works

WORK TEST CERTIFICATE



53 Grade Ordinary Portland Cement

Despatched during Week No.	04	From	22/01/2018	To	28/01/2018
Test Certificate No. Dated	04 06/02/2018	Reference No.	WD/LAB/TC/07		
S.N.	Parameters	Results Obtained	Requirement as per IS 269 : 2015 (Variety: OPC 53)		
Chemical Composition					
1	Lime Saturation Factor CaO - 0.7 SO ₃ / (2.8 SiO ₂ + 1.2 Al ₂ O ₃ + 0.65 Fe ₂ O ₃)	0.90	Not greater than 1.02 and not less than 0.80		
	Ratio of % Alumina to that of Iron Oxide Al ₂ O ₃ / Fe ₂ O ₃	1.28	Not less than 0.66		
	Insoluble Residue (% by mass)	0.5	Not more than 5.0 %		
	Magnesia (% by mass)	0.9	Not more than 6.0 %		
	Sulphuric Anhydride (% by mass)	3.0	Not More than 3.5 %		
	Total loss on Ignition (%)	1.9	Not More than 4.0 %		
	Chloride Content (%)	0.021	Not More than 0.1 % for general purpose but not more than 0.05 % for pre-stressed structures		
Physical Analysis					
2	Fineness				
	Blaine's Specific Surface Area (m ² / kg)	306	Not Less than 225		
3	Compressive Strength (MPa)				
	72 ± 1h (3 Days)	37.3	Not less than 27.0		
	168 ± 2h (7 Days)	47.1	Not less than 37.0		
	672 ± 4h (28 Days) *	Awaited	Not less than 53.0		
4	Setting Time (Minutes)				
	Initial	135	Not less than 30		
	Final	190	Not more than 600		
5	Soundness				
	Le-Chatelier Expansion (mm)	1.0	Not more than 10.0		
	Auto-Clave Expansion (%)	0.08	Not more than 0.8		
6	Normal Consistency (%)				
	Temp. During Testing (°C)	27	(27 ± 2) ⁰ C		

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

Manager (QA)

Chief Manager -QA