



ACC

ACC Limited
Wadi Cement Works

WORK TEST CERTIFICATE



53 Grade Ordinary Portland Cement

Despatched during Week No.		08	From	19/02/2017	To	25/02/2017
Test Certificate No.		08	Reference No.		WD/LAB/TC/08	
Dated		06/03/2017				
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)	0.89	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	1.31	Not less than 0.66			
	Insoluble Residue (% by mass)	1.7	Not more than 5.0 %			
	Magnesia (% by mass)	0.8	Not more than 6.0 %			
	Sulphuric Anhydride (% by mass)	2.8	Not More than 3.5 %			
	Total loss on Ignition (%)	1.7	Not More than 4.0 %			
	Chloride Content (%)	0.023	Not More than 0.1 % for general purpose but not more than 0.05 % for pre-stressed structures			
Physical Analysis						
Fineness						
2	Blaine's Specific Surface Area (m ² / kg)	301	Not Less than 225			
Compressive Strength (MPa)						
3	72 ± 1h (3 Days)	37.7	Not less than 27.0			
	168 ± 2h (7 Days)	47.9	Not less than 37.0			
	672 ± 4h (28 Days) *	Awaited	Not less than 53.0			
Setting Time (Minutes)						
4	Initial	125	Not less than 30			
	Final	180	Not more than 600			
Soundness						
5	Le-Chatelier Expansion (mm)	1.0	Not more than 10.0			
	Auto-Clave Expansion (%)	0.07	Not more than 0.8			
6	Normal Consistency (%)	27.8				
	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 Production