



# ACC

ACC Limited  
Wadi Cement Works

**WORK TEST CERTIFICATE**



## 43 Grade Ordinary Portland Cement

Despatched during Week No.		12	From	19/03/2017	To	25/03/2017
Test Certificate No.		12	Reference No.		WD/LAB/TC/07	
Dated		03/04/2017				
S.N.	Parameters	Results Obtained	Requirement as per IS 269 : 2015 (Variety: OPC 43)			
<b>Chemical Composition</b>						
1	Lime Saturation Factor CaO – 0.7 SO <sub>3</sub> / (2.8 SiO <sub>2</sub> + 1.2 Al <sub>2</sub> O <sub>3</sub> + 0.65 Fe <sub>2</sub> O <sub>3</sub> )	0.89	Not greater than 1.02 and not less than 0.66			
	Ratio of % Alumina to that of Iron Oxide Al <sub>2</sub> O <sub>3</sub> / Fe <sub>2</sub> O <sub>3</sub>	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)	2.7	Not More than 3.5 %			
	Total loss on Ignition (%)	1.7	Not More than 5.0 %			
	Chloride Content (%)	0.025	Not more than 0.1 % for general purpose & not more than 0.05 % for pre-stressed structures			
	<b>Physical Analysis</b>					
<b>Fineness</b>						
2	Blaine's Specific Surface Area (m <sup>2</sup> / kg)	301	Not Less than 225			
<b>Compressive Strength (MPa)</b>						
3	72 ± 1h (3 Days)	31.7	Not less than 23.0			
	168 ± 2h (7 Days)	40.4	Not less than 33.0			
	672 ± 4h (28 Days) *	Awaited	Not less than 43.0 & not more than 58.0			
<b>Setting Time (Minutes)</b>						
4	Initial	130	Not less than 30			
	Final	185	Not more than 600			
<b>Soundness</b>						
5	Le-Chatelier Expansion (mm)	1.0	Not more than 10.0			
	Auto-Clave Expansion (%)	0.08	Not more than 0.8			
6	<b>Normal Consistency (%)</b>	27.0				
	Temp. During Testing (°C)	27	(27 ± 2) <sup>o</sup> C			

The above cement complies with the requirements of IS 269 : 2015 (Variety: OPC 43) for 43 Grade Ordinary Portland Cement

Manager (QA)

Chief Manager Production