



WORK TEST CERTIFICATE

53 Grade Ordinary Portland Cement

Despatched during Week No.	26	From	25-Jun-2019	To	1-Jul-2019
Test Certificate No.	26	Reference No.		WCW/IMS/QA/FM/08	
Dated	7/30/2019				
S.N.	Parameters	Results Obtained	Requirement as per IS 269 : 2015 (Variety: OPC 53)		
1	Chemical Composition				
	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	1.34	Not less than 0.66		
	Insoluble Residue (% by mass)	0.80	Not more than 5.0 %		
	Magnesia (% by mass)	0.90	Not more than 6.0 %		
	Sulphuric Anhydride (% by mass)	2.90	Not More than 3.5 %		
	Total loss on Ignition (%)	1.70	Not More than 4.0 %		
	Chloride Content (%)	0.019	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)	306	Not Less than 225		
3	Compressive Strength (MPa)				
	72 ± 1h (3 Days)	36.5	Not less than 27.0		
	168 ± 2h (7 Days)	46.5	Not less than 37.0		
	672 ± 4h (28 Days) *	59.3	Not less than 53.0		
4	Setting Time (Minutes)				
	Initial	140	Not less than 30		
	Final	190	Not more than 600		
5	Soundness				
	Le-Chatelier Expansion (mm)	1.00	Not more than 10.0		
	Auto-Clave Expansion (%)	0.060	Not more than 0.8		
6	Normal Consistency (%)				
	Temp. During Testing (0C)	27.20	(27 ± 2)0C		

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

Manager (QA)