



53 Grade Ordinary Portland Cement

Despatched during Week No.		02	From	08/01/2018	To	14/01/2018
Test Certificate No. Dated		02 15/02/2018	Reference No.		WD/LAB/TC/07	
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)		0.89	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		1.30	Not less than 0.66		
	Insoluble Residue (% by mass)		0.9	Not more than 5.0 %		
	Magnesia (% by mass)		0.9	Not more than 6.0 %		
	Sulphuric Anhydride (% by mass)		3.2	Not More than 3.5 %		
	Total loss on Ignition (%)		1.8	Not More than 4.0 %		
	Chloride Content (%)		0.018	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)		302	Not Less than 225		
3	Compressive Strength (MPa)					
	72 ± 1h (3 Days)		37.1	Not less than 27.0		
	168 ± 2h (7 Days)		47.2	Not less than 37.0		
	672 ± 4h (28 Days) *		58.3	Not less than 53.0		
4	Setting Time (Minutes)					
	Initial		125	Not less than 30		
	Final		185	Not more than 600		
5	Soundness					
	Le-Chatelier Expansion (mm)		1.0	Not more than 10.0		
	Auto-Clave Expansion (%)		0.06	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 -QA