



WORK TEST CERTIFICATE



## Portland Pozzolana Cement

Portiano Pozzoiana Cement								
Despatched during Week No. 03			From	15/01/2018	То	21/01/2018		
Test Certificate No.03Dated20/02/20		Reference		nce No. WD/LAB/TC/09				
S.N.	Parameters		-	sultsRequirement as perainedIS 1489 (Part I):2015			-	
1	Chemical Composition							
	Loss on Ignition (% by mass)		-	1.7 Not More that		5.0%		
	Magnesia (MgO) (% by mass)		(	).9	Not More than 6.0%			
	Sulphuric Anhydride (SO <sub>3</sub> ): (% by Mass)		2.6		Not More than 3.5%			
	Chloride Content (% by Mass)		0.017		Not More than 0.1% (for general purpose) & not more than 0.05% for pre-stressed structures			
	Insoluble Residue (% by mass)			9.7	Not More than [X + 4.0 (100-X) / 100] & Not less than (0.6 X), Where "X" is the declared Pozzolana content in cement.			
	Physical Analysis							
2	Fineness							
	Blaine's Specific Surface Area (m <sup>2</sup> / kg)			348 Not Less than 300				
3	Compressive Strength (MPa)							
	72 ± 1h (3 Days)			29.8 Not less than 16.0				
	168 ± 2h (7 Days)			9.1	Not less than 22.0			
	672 ± 4h (28 Days)*		57.6		Not less than 33.0			
4	Setting Time (Minutes)							
	Initial		155		Not less than 30			
	Final		2	Not more than 600				
5	Soundness							
	Le-Chatelier Expansion (mm)		0.5		Not more than 10.0			
	Auto-Clave Expansion (%)		0.	009	Not more than 0.8			
6	Drying Shrinkage (%)*			aited	Not More than 0.15			
7	Normal Consistency (%)		3	1.0				
	Temp. During Testing ( <sup>0</sup> C)			27	$(27 \pm 2)^0 \mathrm{C}$			

\* Fly Ash Content in Cement is (%)

34.0

The above cement complies with the requirements of IS 1489 (Part I): 2015 for Portland Pozzolana Cement.

Parcher

Manager (QA)

Chief Manager -QA