





## **WORK TEST CERTIFICATE**

## **Portland Pozzolana Cement**

Despatched during Week No.		29	From	rom 15-Jul-2020		То	21-Jul-2020
Test Certificate No.		29 Refere		oo No		WCV	V/IMS/QA/FM/09
Dated		19-Aug-2020	Referenc	∃ NO.		VVCVV/IIVIS/QA/FIVI/09	
S.N.	Parameters		Results Obtained	Requirement as per IS 1489 (Part I) : 2015			
1	Chemical Composition						
	Loss on Ignition (% by mass)			1.80	Not More than 5.0 %		
	Magnesia (% by mass)			0.78	Not more than 6.0 %		
	Sulphuric Anhydride SO3 (% by mass)			2.30	Not More than 3.5 %		
	Chloride Content (% by mass)			0.01	Not more than 0.1 % for general purpose & not more than 0.05 % for pre-stressed structures		
	Insoluble Residue (% by mass)			28.30	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 (m2 / kg)			321	Not Less than 300		
3	Compressive Strength (MPa)						
	72 ± 1h (3 Days)			28.2	Not less than 16.0		
	168 ± 2h (7 Days)			38.3	Not less than 22.0		
	672 ± 4h (28 Days) *			54.1	Not less than 33.0		
4	Setting Time (Minutes)						
	Initial			175	Not less than 30		
	Final			275	Not more than 600		
5	Soundness						
	Le-Chatelier Expansion (mm)			1.00	Not more than 10.0		
	Auto-Clave Expansion (%)			0.040	Not more than 0.8		
6	Drying Shrinkage (%)*			Awaited	Not more than 0.15		
7	Normal Consistency (%)			29.25			
	Temp. During Testing (0C)			27.00	(27 ± 2)0C		

\* Fly Ash Content in Cement is (%) 34.00

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

Manager (QA)