





## **WORK TEST CERTIFICATE**

## **Portland Pozzolana Cement**

Despatched during Week No.		34	From	19-Au	g-2020	То	25-Aug-2020
Test Certificate No.		34	Deferen	- NI-		14/014	WINEOU A /ENA/OO
Dated		23-Sep-2020 Reference		e No.		WCW/IMS/QA/FM/09	
S.N.	Pa	rameters		Results Obtained	Requirement as not is 14x4 (Part I) · 2015		
1	Chemical Composition						
	Loss on Ignition (% by mass)			1.80	Not More than 5.0 %		
	Magnesia (% by mass)			0.76	Not more than 6.0 %		
	Sulphuric Anhydride SO3 (% by mass)			2.40	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)			29.5	Not less than 16.0		
	168 ± 2h (7 Days)			38.2	Not less than 22.0		
	672 ± 4h (28 Days) *			56.7	Not less than 33.0		
4	Setting Time (Minutes)						
	Initial			175	Not less than 30		
	Final			270	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 (%)			29.50			
	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)