

HEIDELBERGCEMENT**Zuari Cement**
HEIDELBERGCEMENT Group**Zuari Cement Ltd**SOLAPUR GRINDING UNIT
SOLAPUR, MAHARASHTRA**ENGINEERED FOR DURABILITY**

TEST CERTIFICATE		Week No	23
PORTLAND POZZOLANA CEMENT		Year	2022
SAMPLE TEST TYPE	RESULT OBTAINED FROM TEST	REQUIREMENT	IS-1489(PART-1):2015

PHYSICAL REQUIREMENTS

1. Fineness -Blaine(M ² /Kg)	321	Not less than 300 M ² /Kg
2.Soundness:		
A.Autoclave Expansion (%)	0.030	Not more than 0.8 %
B.Le Chatelier Expansion (in mm)	1.00	Not more than 10 mm
3.Setting Time (in minutes)		
A.Initial	145	Not less than 30 minutes
B.Final	215	Not more than 600 minutes
4.Compressive Strength (MPa)		
A.72 ± 1 hr.(3 days)	22.8	Not Less than 16 MPa
B.168 ± 2 hr.(7 days)	32.9	Not Less than 22 MPa
C.672 ± 4 hr.(28 days)	49.2	Not Less than 33 MPa
5.Dry Shrinkage %	UT	Not more than 0.15 %

CHEMICAL REQUIREMENTS

1.Loss on Ignition (% by mass)	1.50	5 % Maximum
2.Insoluble Residue (% by mass)		
A.Max	31.69	$x+4(100-x)/100$
B.Min		$x*0.6$
		where x is the declared % Fly ash in the given Portland Pozzolana Cement
3.Magnesium Oxide (MgO) (% by mass)	1.26	6.0 % Maximum
4.Total Sulphur content calculated as (SO ₃) (% by mass)	2.60	3.5 % Maximum
5.Chlorides (% by mass)	0.034	0.10 % Maximum
6.Declared % Fly Ash	35.00	15.0% TO 35.0 %

Water required for paste of standard consistency (%) **30.50**

The above cement complies with the requirements of IS 1489(PART-1) : 2015 For PORTLAND POZZOLANA CEMENT

Computer generated Report, hence Signature is not required
For BIS certification details see website bis.org.inFor Zuari Cement Ltd
MANAGER (QC)