

HEIDELBERGCEMENT**Zuari Cement**
HEIDELBERGCEMENT Group**Zuari Cement Ltd**

SOLAPUR GRINDING UNIT

SOLAPUR, MAHARASHTRA

IS 1489

PART-1
CML-7500042507**ENGINEERED FOR DURABILITY**

TEST CERTIFICATE		Week No	31
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)	331	Not less than 300 M ² /Kg
2.Soundness:		
A.Autoclave Expansion (%)	0.035	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	140	Not less than 30 minutes
B.Final	210	Not more than 600 minutes
4.Compressive Strength (MPa)		
A.72 ± 1 hr.(3 days)	23.4	Not Less than 16 MPa
B.168 ± 2 hr.(7 days)	33.5	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)	1.63	5 % Maximum
2.Insoluble Residue (% by mass)		
A.Max	31.50	$x+4(100-x)/100$
B.Min		$x*0.6$
		where x is the declared % Fly ash in the given Portland Pozzolana Cement
3.Magnesium Oxide (MgO) (% by mass)	1.38	6.0 % Maximum
4.Total Sulphur content calculated as (SO ₃) (% by mass)	2.50	3.5 % Maximum
5.Chlorides (% by mass)	0.035	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)