

for better building

HCIL(NGH)-QCD-F026

**DIAMOND CEMENTS (Prop. HEIDELBERGCEMENT INDIA LTD)
DAMOH UNIT**

TEST REPORT FOR MYCEM

Portland Pozzolana Cement as per IS1489 (Part I):2015

REF.: DC/DMH/QA/2021/16

DATE : 29.05.2021

WEEK NO. : 16

(16.04.21-22.04.21)

CHARACTERISTIC	RESULTS OBTAINED	REQUIREMENT OF IS1489 (Part 1):2015
(A) CHEMICAL COMPOSITION		
(i) Loss on Ignition % by mass	2.48	5.0, Max.
(ii) Magnesia (MgO), % by mass	2.91	6.0, Max.
(iii) Sulphuric Anhydride (SO ₃) % by mass	2.36	3.5, Max.
(iv) Total Chloride (Cl), % by mass	0.014	0.1, Max.
(v) Insoluble Material, % by mass	33.52	$\bar{X} + 4.0 \times (100 - \bar{X}) / 100$ Max 0.6 X Min Where \bar{X} is the declared % of Fly Ash in the PPC sample
(B) PHYSICAL TESTING		
1. Fineness of Cement		
Sp. Surface blaine (m ² /kg)	330	300 m ² /kg minimum
2. Soundness		
Le-Chatelier Expansion (mm)	0.50	10 mm, Max.
Autoclave Expansion (%)	0.052	0.8 %, Max.
3. Setting Time		
Initial (in Minutes)	170	30 minutes, Min.
Final (in Minutes)	220	600 minutes, Max.
4. Compressive Strength (MPa)		
(a) At 72 ± 1 Hrs.	28	16 MPa, Min.
(b) At 168 ± 2 Hrs.	38	22 MPa, Min.
(c) At 672 ± 4 Hrs.	47	33 MPa, Min.
5. Drying Shrinkage (%)	0.044	0.15 %, Max.
6. Declared % of Fly Ash in PPC	34.94	15 - 35 %

Remarks :

- Temperature during testing - $27 \pm 2^\circ \text{C}$.
- The amount of Fly Ash in the finished cement is not varying more than $\pm 3\%$ from the declared value.
- Portland Pozzolana Cement conforms to the requirement of IS 1489 (Part 1):2015 in all respects.

Vijay Kumar Sinhalaka

Head of Quality Control - Damoh