

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):1991

REF.: DC/DMH/QA/2018/05

DATE : 13.03.2018

WEEK NO. : 05

(29.01.18 - 04.02.18)

CHARACTERISTIC	RESULTS OBTAINED	REQUIREMENT OF IS1489 (Part 1):1991
(A) CHEMICAL COMPOSITION		
(i) Loss on Ignition % by mass	2.50	5.0, Max.
(ii) Magnesia (MgO), % by mass	2.90	6.0, Max.
(iii) Sulphuric Anhydride (SO ₃) % by mass	2.35	3.5, Max.
(iv) Total Chloride (Cl), % by mass	0.011	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)	372	300 m ² /kg minimum
2. Soundness		
Le-Chatelier Expansion (mm)	0.5	10 mm, Max.
Autoclave Expansion (%)	0.035	0.8 %, Max.
3. Setting Time		
Initial (in Minutes)	170	30 minutes, Min.
Final (in Minutes)	225	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.	48	33 MPa, Min.
5. Drying Shrinkage (%)	0.044	0.15 %, Max.
6. Declared % of Fly Ash in PPC	34.92	15 - 35 %

Remarks :

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



Head of Quality Control - Damoh