

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/2018/02

DATE : 20.02.2018

WEEK NO. : 02

(08.01.18 - 14.01.18)

CHARACTERISTIC	RESULTS OBTAINED	REQUIREMENT OF IS1489 (Part 1):1991
<b>(A) CHEMICAL COMPOSITION</b>		
(i) Loss on Ignition % by mass	2.54	5.0, Max.
(ii) Magnesia (MgO), % by mass	2.90	6.0, Max.
(iii) Sulphuric Anhydride (SO <sub>3</sub> ) % by mass	2.32	3.5, Max.
(iv) Total Chloride (Cl), % by mass	0.010	0.1, Max.
(v) Insoluble Material, % by mass	33.56	$X + 4.0 \times (100 - X) / 100$ Max
		0.6 X Min
		Where X is the declared % of Fly Ash in the PPC sample
<b>(B) PHYSICAL TESTING</b>		
<b>1. Fineness of Cement</b>		
Sp.Surface blaine (m <sup>2</sup> /kg)	374	300 m <sup>2</sup> /kg minimum
<b>2. Soundness</b>		
Le-Chatelier Expansion (mm)	0.5	10 mm, Max.
Autoclave Expansion (%)	0.037	0.8 %, Max.
<b>3. Setting Time</b>		
Initial (in Minutes)	175	30 minutes, Min.
Final (in Minutes)	225	600 minutes, Max.
<b>4. Compressive Strength (MPa)</b>		
(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.
<b>5. Drying Shrinkage (%)</b>	0.042	0.15 %, Max.
<b>6. Declared % of Fly Ash in PPC</b>	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