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**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/2016/26

DATE : 06.08.2016

WEEK NO. : 26

(24.06.16 - 30.06.16)

CHARACTERISTIC	RESULTS OBTAINED	REQUIREMENT OF IS1489 (Part 1):1991
(A) CHEMICAL COMPOSITION		
(i) Loss on Ignition % by mass	2.51	5.0, Max.
(ii) Magnesia (MgO), % by mass	2.65	6.0, Max.
(iii) Sulphuric Anhydride (SO ₃) % by mass	2.33	3.0, Max.
(iv) Total Chloride (Cl), % by mass	0.011	0.1, Max.
(v) Insoluble Material, % by mass	33.52	$\bar{X} + 4.0 \times (100 - \bar{X}) / 100$ 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)	373	300 m ² /kg minimum
2. Soundness		
Le-Chatelier Expansion (mm)	0.5	10 mm, Max.
Autoclave Expansion (%)	0.018	0.8 %, Max.
3. Setting Time		
Initial (in Minutes)	160	30 minutes, Min.
Final (in Minutes)	215	600 minutes, Max.
4. Compressive Strength (MPa)		
(a) At 72 ± 1 Hrs.	28	16 MPa, Min.
(b) At 168 ± 2 Hrs.	39	22 MPa, Min.
(c) At 672 ± 4 Hrs.	52	33 MPa, Min.
5. Drying Shrinkage (%)	0.039	0.15 %, Max.
6. Declared % of Fly Ash in PPC	34.81	15 - 35 %

Remarks :

- Temperature during testing - $27 \pm 2^{\circ}$ 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):1991 in all respects.


Head of Quality Control - Damoh