



**BUREAU  
VERITAS**

Test Report

Test Order / Report No.: BVIPL: CEMENT : 25941C/490/1/2017/3  
Date of Receipt : 23.01.2017

Date : 17.05.2017  
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**DALMIA CEMENT (Bharat) LIMITED**  
Narain Manzil, 17<sup>th</sup> floor, 23,  
Barakhamba Road, New Delhi-110001

**FINAL TEST REPORT ON PHYSICAL PROPERTIES OF CEMENT**

Source of sample : Sample supplied by the customer.  
Customer's Reference Number : Email dt.14.01.2017  
Number of samples tested : 01(One only).  
Manufacture\* : Dalmia  
Sample Identification\* : Dalmia Infra Green  
Condition of sample : Satisfactory  
Lab Reference Number : 2017/JAN/16540  
Period of Test : 23.01.2017 to 28.02.2017

Sl.No	Test Conducted	Results	Test Method followed	Requirements as per IS:269 : 2015
1	CONSISTENCY	22.0 %	IS:4031(P-4)-1988(RA 2014)	Not specified
2	INITIAL SETTING TIME	165 minutes	IS:4031(P-5)-1988(RA 2014)	Shall not be less than 30 Minutes
3	FINAL SETTING TIME	225 minutes	IS:4031(P-5)-1988(RA 2014)	Shall not be more than 600 Minutes
4	COMPRESSIVE STRENGTH a) 24 h (average of three results) b) 72±1h (average of three results) c) 168±2h (average of three results) d) 672±4h (average of three results)	21.1 MPa 40.7 MPa 56.4 MPa 70.3 MPa	IS:4031(P-6)-1988(RA 2014)	Not Specified Shall not be less than 16.0 MPa Shall not be less than 22.0 MPa Shall not be less than 33.0 MPa
5	FLEXURAL STRENGTH a) 24 h (average of three results) b) 72±1h (average of three results) c) 168±2h (average of three results) d) 672±4h (average of three results)	4.8 MPa 7.5 MPa 8.4 MPa 9.1 MPa	IS:4031(P-8)-1988(RA 2014)	The cement shall show a progressive increase in strength from the strength at 72 hours.
6	DRYING SHRINKAGE a) 1 Day b) 3 Days c) 7 Days d) 28 Days	0.004 % 0.012 % 0.031 % 0.054 %	IS:4031(P-10)-1988 (RA 2014)	Shall not be more than 0.15 %
7	Water Permeability, Percolation in ml	NIL	IS:2645	Not Specified
8	FLOW (W/C) = 0.37 (in %) a) Initial Flow b) 60 Minutes Flow d) 90 Minutes Flow	114 % 68 % 9%	IS:4031(P-8)-1988 (RA 2014)	Not Specified
9	FLOW (W/C) = 0.37 (in mm) a) Initial Flow b) 60 Minutes Flow d) 90 Minutes Flow	214 mm 168 mm 109 mm	IS:4031(P-8)-1988 (RA 2014)	Not Specified

\* As furnished by the customer.

This Report Supersedes Report No.25941C/490/1/2017/3 dt.14.03.2017

- Note :**
1. The Results relate only to the samples tested.
  2. Report shall not be reproduced, except in full, without the written approval of the lab.
  3. Any correction invalidates this report.

For Bureau Veritas (India) Pvt. Ltd.  
Construction Services Laboratory



**Dinesh Burde**  
*[Signature]*  
**Manager - Lab  
Authorised Signatory**



CEM/W694/3