

# KIRTON CONCRETE SERVICES LTD

INDEPENDENT TESTING LABORATORY



1175

Manor House, Station Road, Hibaldstow, Brigg, North Lincolnshire, DN20 9EB, England

Telephone: (01652) 656931 : Fax: (01652) 651082 : E-mail Kirtonlab@aol.com

## CEMENT TEST RESULTS

Client :- TITAN CEMENT LTD., HULL  
Report Reference :- TITAN 2/16  
Your Reference :-  
Sample :- PORTLAND CEMENT  
Sand :- FRENCH  
Date of receipt of sample :- 26/01/2016  
Date of tests :- 26/01/2016 to 23/02/2016  
Date of Report :- 23/02/2016

### RESULTS

DENSITY	3110 kg/m <sup>3</sup>	(BS EN196 PART 6:2010 N.AC. 5.3)
FINENESS	3930 cm <sup>2</sup> /g	(BS EN196 PART 6:2010 )
STANDARD CONSISTENCE	28.5 %	(BS EN196- 3:2005)
INITIAL SETTING TIME	180 mins	(BS EN196- 3:2005)
SOUNDNESS	1.0 mm	(BS EN196- 3:2005)

### COMPRESSIVE STRENGTH :- MORTAR PRISMS

(BS EN196 - 1:2005)

AT 2 DAYS	31.0 MPa	(Mean of 6 results, none discarded)
AT 7 DAYS	47.1 MPa	(Mean of 6 results, none discarded)
AT 28 DAYS	60.2 MPa	(Mean of 6 results, none discarded)

### CHEMICAL COMPOSITION :- by mass

Chloride	0.04 %	(BS EN 196 -2:2013)
Na <sub>2</sub> O	0.14 %	(BS EN 196 -2:2013)
K <sub>2</sub> O	0.55 %	(BS EN 196 -2:2013)
Na <sub>2</sub> O (equiv)	0.50 %	(BS EN 196 -2:2013)

End Of Report

THE ABOVE RESULTS COMPLY WITH THE REQUIREMENTS OF

BS EN 197-1:2011 FOR CEM 1 52.5 N

Signed .....

Certificate signed by :-

S Burton A .M.I.C.T  
Technical Manager

J M Burton  
Quality Manager

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## CEMENT TEST REPORT

Tests accordance with BS1881:Part 131: 1998: Annex C

Client :- TITAN CEMENT LTD , HULL  
Report Reference :- CUBES 2/16  
Your Reference :-  
Date of receipt :- 26/01/2016  
Date of tests :- 26/01/2016 to 23/02/2016

### RESULTS

AT 3 DAYS	28.0	28.5	27.5	average =	28.0 N/mm <sup>2</sup>
AT 7 DAYS	36.0	37.5	37.5	average =	37.5 N/mm <sup>2</sup>
AT 28 DAYS	49.5	47.5	50.5	average =	49.0 N/mm <sup>2</sup>

SLUMP

65 mm.

End of Report

26/01/2016 at 14:07

as per BSEN 12350-2:2009 by

B. Beck The sampling was carried out in accordance with BSEN 12350-1:2009. The mixing, sampling and slump test were carried out at Kirton Concrete Services laboratory. The time lapse from sampling to commencement of test was zero. The slump was a true slump.

Signed .....

23/02/2016

Certificate signed by :-

S Burton A .M.I.C.T J M Burton  
Technical Manager Quality Manager

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## CEMENT TEST REPORT

Client :- TITAN CEMENT LTD , HULL  
Report Reference :- CHEMISTRY 2/16  
Your Reference :-  
Date of receipt of sample :- 26/01/2016  
Date of tests :- 26/01/2016 to 23/02/2016  
Date of report :- 23/02/2016

CHEMICAL COMPOSITION :- % by mass, as received

IR	0.42	(BS EN 196 -2:2013)
SO3	2.76	(BS EN 196 -2:2013)
LOI	3.22	(BS EN 196 -2:2013)
K2O	0.55	(BS EN 196 -2:2013)
Na2O	0.14	(BS EN 196 -2:2013)
Na2O (eq)	0.50	(BS EN 196 -2:2013)
Chloride	0.04	(BS EN 196 -2:2013)
Chrome VI mg/kg	N/A	(BS EN 196 -2:2013)

The results determined by XRF analysis are not covered by the laboratories accreditation.

SiO2	19.99	by XRF
Al2O3	4.21	by XRF
Fe2O3	3.20	by XRF
CaO	64.55	by XRF
MgO	2.58	by XRF

The following results are not UKAS Accredited :-

L.S.F.	0.99
C3A	5.75
C3S	67.74
C2S	6.22
C4AF	9.73
Free Lime	0.58

End Of Report

Signed .....

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Technical Manager

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Quality Manager