

	<b>Wills Brothers Laboratory</b>	File No .....3.03..... Contract No.... Sheet... 1...of.....1.
	N5 Ballaghaderreen Bypass Site Laboratory , N5 Ballaghaderreen, Co Roscommon	Standard Proforma SP9/CR3 -B

**TEST REPORT AND CERTIFICATE OF TEST OF COMPRESSIVE STRENGTH  
OF CONCRETE CUBES TO BS EN 12390-3:2009**

SAMPLE LOCATION:	Trial Mix @ Roadstone Plant, Castlemine, Four Mile House.					
CONCRETE SUPPLIER:	Roadstone, Castlemine, Four Mile House, Co Roscommon					
SAMPLE No:	BC/02			BC/02		
TIME SAMPLED:	13:20			13:20		
MIX DESCRIPTION	C32/40			C32/40		
Cube Set Number	BC/02	BC/02	BC/02	BC/02	BC/02	BC/02
LABORATORY REFERENCE No	A	B	C	D	E	F
BS EN 12350-2: 2009 MEASURED SLUMP	50			50		
DATE SAMPLED / CAST	28.02.13			28.02.13		
DATE RECEIVED	01.03.13			01.03.13		
DATE TESTED	07.03.13	28.03.13	28.03.13	07.03.13	28.03.13	28.03.13
AGE AT TEST - DAYS	7	28	28	7	28	28
DIMENSIONS / NOMINAL SIZE (mm)	100	100	100	100	100	100
MASS (Kgs)	2.443	2.455	2.471	2.449	2.457	2.451
DENSITY (Kg/M3)	2440	2460	2470	2420	2440	2440
MAXIMUM LOAD AT FAILURE KN	519.0	616.0	628.0	523.7	620.2	655.3
COMPRESSIVE STRENGTH N/mm2	51.9	61.6	62.8	52.4	62.0	65.5
REMARKS	A, B, C tested by Mattest					

<p><b>KEY TO REMARKS</b></p> <p>1. Air cured Cubes, Immersed in Water for 5 Minutes Prior to Test. Mass / Density Determined As Received.</p> <p>2. Fins Removed By Carbourundum Stone.</p> <p>3. Abnormal Mode of Failure</p> <p>4. Poor Compaction</p> <p>5. Honeycombing</p> <p>6. Cube Not Square</p> <p>7. Damaged corners</p> <p>8. Damaged Edges</p> <p>9. Damaged Faces</p>	<p>The Following Applies unless stated Otherwise:</p> <p>* Test Condition Saturated                      * Mass and Density at test Saturated</p> <p>* Specimen Made in Accordance with BS EN 12390-2: 2009</p> <p>* Cube Densities Determined By Displacement Method BS EN 12390-7: 2009</p> <p>* Stored , Cured And Tested in Accordance with BS EN 12390-3: 2009</p> <p>* Cube Failure Normal</p>
<p><b>MATERIALS ENGINEER / ASSISTANT-MAT-ENG-</b></p> <p>INTERIM REPORT(S).....DATE..... <u>7-3-2013</u>.....</p> <p>COMPLETE REPORT.....DATE..... <u>28-3-2013</u>.....</p> <p>Authorised signatory - <u>P.E. Johnson / R. Rooney</u></p> <p>Signed.....</p>	

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	Contract No....
N5 Ballaghaderreen Bypass	
Site Laboratory , N5 Ballaghaderreen, Co Roscommon	Sheet... 1...of..... 1.
	Standard Proforma SP9/CR3 -B

**TEST REPORT AND CERTIFICATE OF TEST OF COMPRESSIVE STRENGTH  
OF CONCRETE CUBES TO BS EN 12390-3:2009**

SAMPLE LOCATION:	Trial Mix @ Roadstone Plant, Castlemine, Four Mile House					
CONCRETE SUPPLIER:	Roadstone, Castlemine, Four Mile House, Co Roscommon					
SAMPLE No:	BC/02			BC/02		
TIME SAMPLED:	13:20			13:20		
MIX DESCRIPTION	C32/40			C32/40		
Cube Set Number	BC/02	BC/02	BC/02	BC/02	BC/02	BC/02
LABORATORY REFERENCE No	G	H	I	J	K	L
BS EN 12350-2: 2009 MEASURED SLUMP	50			50		
DATE SAMPLED / CAST	28.02.13			28.02.13		
DATE RECEIVED	01.03.13			01.03.13		
DATE TESTED	07.03.13	28.03.13	28.03.13	14.03.13	28.03.13	28.03.13
AGE AT TEST - DAYS	7	28	28	14	28	28
DIMENSIONS / NOMINAL SIZE (mm)	100	100	100	100	100	100
MASS (Kgs)	2.453	2.449	2.429	2.434	2.468	2.454
DENSITY (Kg/M3)	2410	2440	2430	2430	2440	2430
MAXIMUM LOAD AT FAILURE KN	522.5	597.4	595.0	600.8	581.8	591.3
COMPRESSIVE STRENGTH N/mm2	52.3	59.7	59.5	60.1	58.2	59.1
REMARKS						

- KEY TO REMARKS**
- Air cured Cubes, Immersed in Water for 5 Minutes Prior to Test.
  - Mass / Density Determined As Received.
  - Fins Removed By Carbourundum Stone.
  - Abnormal Mode of Failure
  - Poor Compaction
  - Honeycombing
  - Cube Not Square
  - Damaged corners
  - Damaged Edges
  - Damaged Faces

The Following Applies unless stated Otherwise:

- \* Test Condition Saturated
- \* Mass and Density at test Saturated
- \* Specimen Made in Accordance with BS EN 12390-2: 2009
- \* Cube Densities Determined By Displacement Method BS EN 12390-7: 2009
- \* Stored , Cured And Tested in Accordance with BS EN 12390-3: 2009
- \* Cube Failure Normal

**MATERIALS ENGINEER / ASSISTANT MAT ENG**

INTERIM REPORT(S).....DATE..... 7-3-2013.....

COMPLETE REPORT.....DATE..... 28-3-2013.....

Authorised signatory - P.E. Johnson / B. Rooney

Signed.....[Signature].....