



**LABORATORY TEST CERTIFICATE**  
**DETERMINATION OF FLEXURAL TENSILE STRENGTH OF METALLIC FIBRE**  
**CONCRETE (LIMIT OF PROPORTIONALITY (LOP), RESIDUAL) BS EN 14651:2005 +A1:2007**

|                                 |                      |            |
|---------------------------------|----------------------|------------|
| <b>Site:</b> Farringdon C435    | <b>Job No.:</b>      | 2947       |
| <b>Client:</b> BFK              | <b>Site Ref No.:</b> | FAR 53.10  |
| 1st Floor                       | <b>Lab Ref No.:</b>  | SA3539     |
| 33-37 Charterhouse Square,      | <b>Date Sprayed:</b> | 04/07/2013 |
| London, EC1M 6EA                | <b>Date Notched:</b> | 29/09/2013 |
| <b>Originator:</b> Nathan Busby | <b>Date Tested:</b>  | 02/10/2013 |

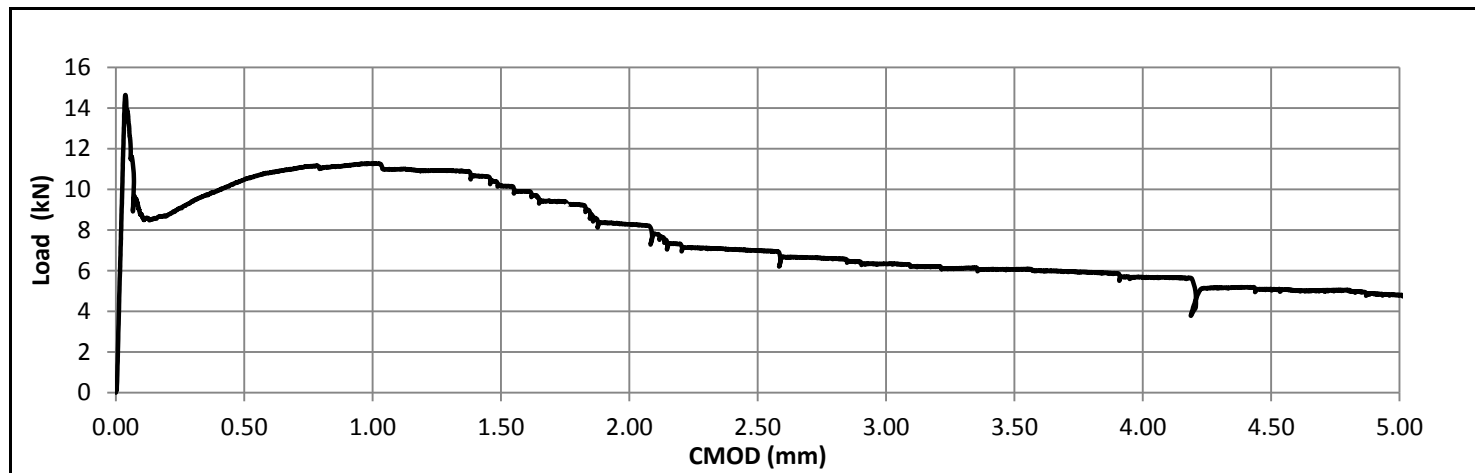
**Composition & Origin**

|                   |                             |
|-------------------|-----------------------------|
| Site Ref No       | CPI - Invert 13             |
| Number of samples | 1                           |
| Mix Composition   | CPI 465                     |
| Curing History    | 90 Days under water at 20°C |
| Test Condition    | Moist                       |

**Dimensions**

|                                                   |       |    |
|---------------------------------------------------|-------|----|
| Average Width                                     | 147.1 |    |
| Average distance between notch tip & Specimen top | 124.1 |    |
| Notch Width / Depth                               | 5     | 25 |
| Span Length                                       | 500   |    |

**Load CMOD Deflection**



| CMOD                                               | Specification |
|----------------------------------------------------|---------------|
| CMOD rate increase: (mm/min) Start to 0.01mm CMOD: | 0.05          |
| CMOD rate increase: (mm/min): (Entire Test)        | 0.18          |
| LOP to nearest 0.1 N/mm <sup>2</sup> :             | 4.8           |

| Residual Flexural Tensile Strength                                          | Specification |
|-----------------------------------------------------------------------------|---------------|
| CMOD 0.50 mm (N/mm <sup>2</sup> )                                           | 3.5           |
| Min N/mm <sup>2</sup> CMOD 0.54 - 1.13 = Deflection of 0.5 - 1.0mm (D1S1.8) | 3.5           |
| Min N/mm <sup>2</sup> CMOD 0.54 - 4.66 = Deflection of 0.5 - 4.0mm (D3S1.4) | 1.3           |

**Cores from Beams**

|                                            |                        |      |      |
|--------------------------------------------|------------------------|------|------|
| Compressive Strength (N/mm <sup>2</sup> ): | (C28/34)               | 43.3 | 52.3 |
| Fibre Content (kg/m <sup>3</sup> ):        | (30kg/m <sup>3</sup> ) | 25.8 | 21.5 |

**Deviation from Standard**

**Approved Signature**

**TESTCONSULT LIMITED**

☐ Mark Collyer, Laboratory Manager; ☒ Ian Mundy, Laboratory Operations Manager