TEST REPORT

Lucideon Reference:	155217 (QT38377/1/SL)/Ref. 10
Project Title:	Result of Shear Load Tests on Glass Stand-Off and Glass Retaining Disc
Client:	FH Brundle Unit 6, Dorset Road Saltley Business Park Saltley Birmingham B8 1BG
For the Attention of:	Mr Danny Hull
Author(s):	Mr Dave Boon
Report Date:	04 February, 2016
Purchase Order No.:	333597
Work Location:	Lucideon UK

Miss Joanne Booth
Consultancy Team
Reviewer

Mr Dave Boon
Consultancy Team
Project Manager

This report is issued in accordance with the Conditions of Business of Lucideon Limited and relates only to the sample(s) tested No responsibility is taken for the accuracy of the sampling unless this is done under our own supervision. This report shall not be reproduced in part without the written approval of Lucideon Limited, nor used in any way as to lead to misrepresentation of the results or their implications.

Lucideon is the trading name of Lucideon Limited. Registered in England No. 1960455.

Lucideon Limited
Queens Road, Penkhull
Stoke-on-Trent
Staffordshire ST4 7LQ

T +44 (0)1782 764428
enquiries@lucideon.com
www.lucideon.com

CONTENTS

	Page
1 INTRODUCTION	**3**
2 SAMPLES RECEIVED	**3**
3 TEST METHOD	**3**
4 RESULTS	**3**
TABLE	**4**
PLATES	**5-6**
CHART	**7**

APPENDIX - Figures

1 INTRODUCTION

Lucideon Limited were commissioned by the client, FH Brundle to carry out shear load testing of their Stand-off adapter and glass retaining disc.

The testing was carried out at the Lucideon Laboratories located in Queens Road, Stoke-on-Trent.

This report summarises the test result obtained during the test and does not provide interpretation of those results.

2 SAMPLES RECEIVED

One stand-off adapter together with glass retaining disc, Internal threaded Anchor, 50566 RG16 X 90 M10 I A4 and FIS V Injection Mortar.

Appendix shows a diagram of the stand-off installed to a concrete base.

3 TEST METHOD

The internal-threaded anchor was fixed into the concrete using the injection mortar.

The stand-off was then attached to the internal threaded anchor and a shear load was applied to the standoff. The Glass retaining disc was then opened up 20 mm and a shear load applied onto the glass retaining disc.

4 RESULTS

The shear test results are given in Table 1. Plate 1 shows shear loading of the stand-off, Plate 2 shows Stand-off failure and Plate 3 shows retaining disc failure.

Chart 1 shows load versus deflection curve for the Stand-off when tested in shear.

NOTE: The results given in this report apply only to the samples that have been tested.

END OF REPORT

Table 1 - Summary of Shear Load Performance of FH Brundle of Stand-Off and Glass Retaining Disc

Detail	Maximum Load Achieved (kN)	Deflection at Failure (mm)	Test Detail	Failure Mode
Stand-off	23.74	17.11 mm	Tested to failure in shear	Localised crushing of concrete allowing anchor to deform together with base hole of stand-off
Glass retaining disc	2.96	15.1 mm	Tested to failure in shear	Bending of threaded bar

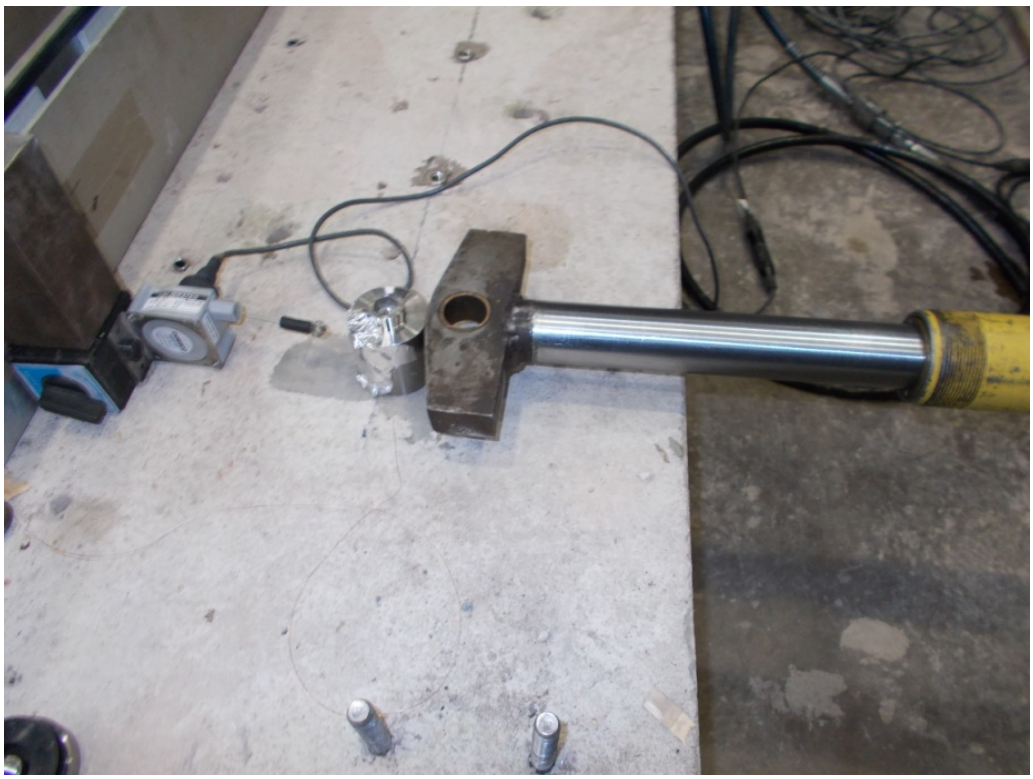


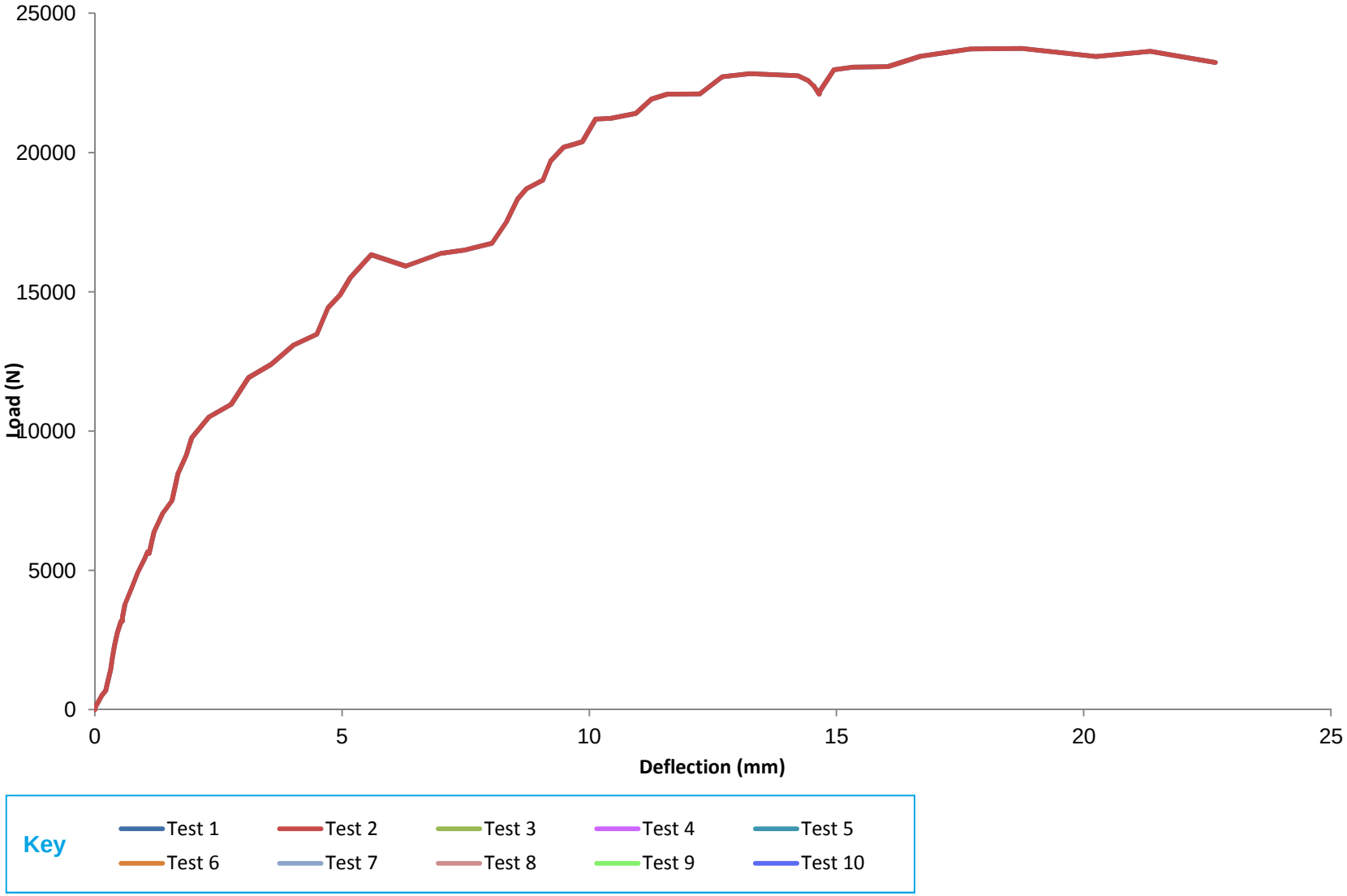
Plate 1 - Shear Loading of Stand-Off

Plate 2 - Failure of Stand-Off

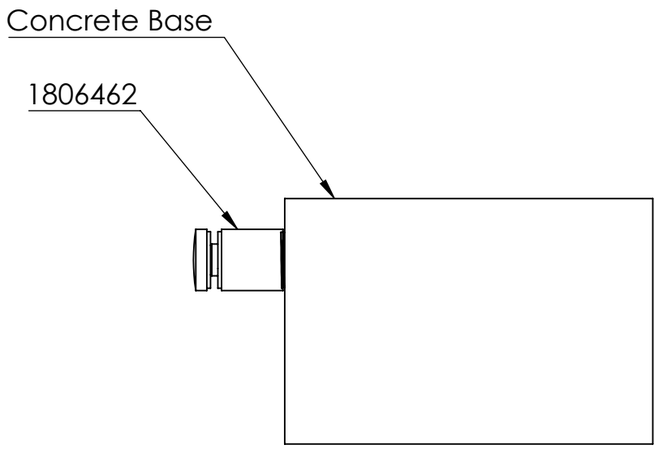
Plate 3 - Shear Failure of Glass Retaining Disc

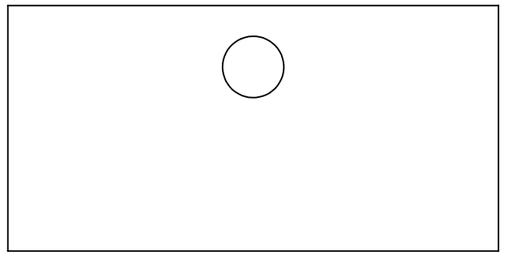
Chart 1 - Load vs. Deflection for FH Brundle Stand-Off Component Tested in Shear to Failure

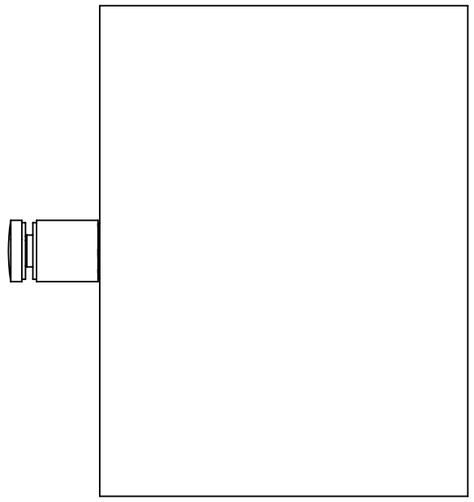
Test Report: 155217/Ref. 10

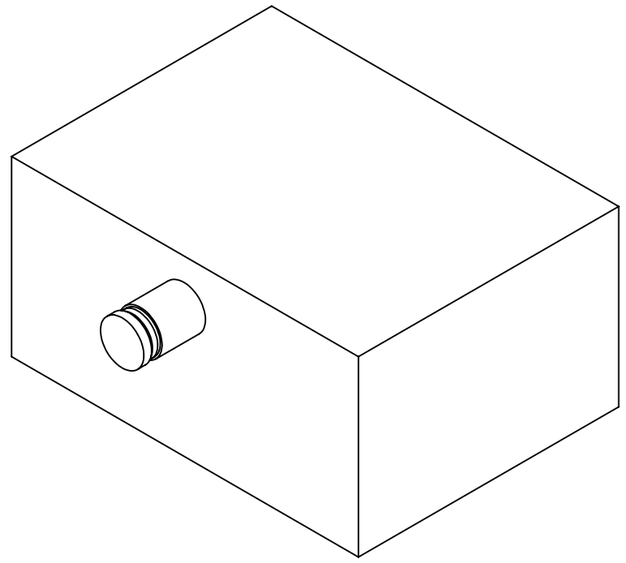


Test:	BS Standard	Parts Needed	Fixed Into	Glass Size	Glass Type/mm	Loading	Hole Size	Fixings Needed	Notes
Test 10: Stand Off	BS6180:2011 and EC1-1991-1-1:2002	1 x 1806462	Concrete	N/A	Glass not needed		10.5mm	50566 - RG 16 x 90 M10 I A4 + FIS V - Injection Mortar	Pull out test/shear









Pro-Railing
Tel: 0121 565 8282
Email: prorailing@brundle.com
Web: www.prorailing.co.uk

NOTES: Technical Drawing - Drawing Not To Be Supplied To Customer

DESCRIPTION: Test 10

MATERIAL: NA

PART NO: NA

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN MILLIMETERS

FINISH: NA

GRIT SIZE: N/A

DWG NO: 0197-010-10

A3

	NAME	DATE	REVISION
DRAWN	GC	27/01/2016	A
REV. BY			

WEIGHT: NA

SCALE:1:5 | DO NOT SCALE DRAWING | SHEET 1 OF 1