

Customer details: Versapak (International) Ltd
The Versapak Centre
4 Veridion Way
Erith
Kent
DA18 4AL

SATRA reference: HML0227792/1435/1

Your reference: BLD1

Date of report: 25 September 2014

For the attention of: Julie Goddard

Samples received: 29 August 2014

TECHNICAL REPORT

Subject: Decribed as Insulated Blood In Transit Bag for testing as per HML0217296/1333/2



Conditions of Issue:

This report may be forwarded to other parties provided that it is not changed in any way. It must not be published, for example by including it in advertisements, without the prior, written permission of SATRA.

Results given in this report refer only to the samples submitted for analysis and tested by SATRA. Comments are for guidance only.

A satisfactory test report in no way implies that the product tested is approved by SATRA and no warranty is given as to the performance of the product tested. SATRA shall not be liable for any subsequent loss or damage incurred by the client as a result of information supplied in the report.

Please note uncertainty of measurement has not been applied to the results in this report. SATRA uncertainty of measurement values are available on request.

Report signed by: Kaileigh Heels
Position: Technologist
Department: Homeware & Lifestyle

Testing requested

We have carried out testing on two insulated blood transit bags reference BLD1 using a modified version of BS EN 12546-2:2000 Clause 4.2 Materials and articles in contact with foodstuffs. Insulated containers for domestic use. Specification for insulated bags and boxes -Insulation performance

The modifications which we have applied are as follows:

A thermocouple was placed in approximately the centre of the sample measuring the internal air temperature of the sample.

Two 140mm x 250mm freezer blocks (supplied) were placed into the base of the sample. The freezer blocks had previously been placed into a freezer for >12 hours.

The external temperatures have been varied from the 32°C as stated in the standard to those described below.

Testing was stopped after 16 hours as requested by the customer

The test has been conducted with the sample as received. The preconditioning specified in the standard has not been carried out.

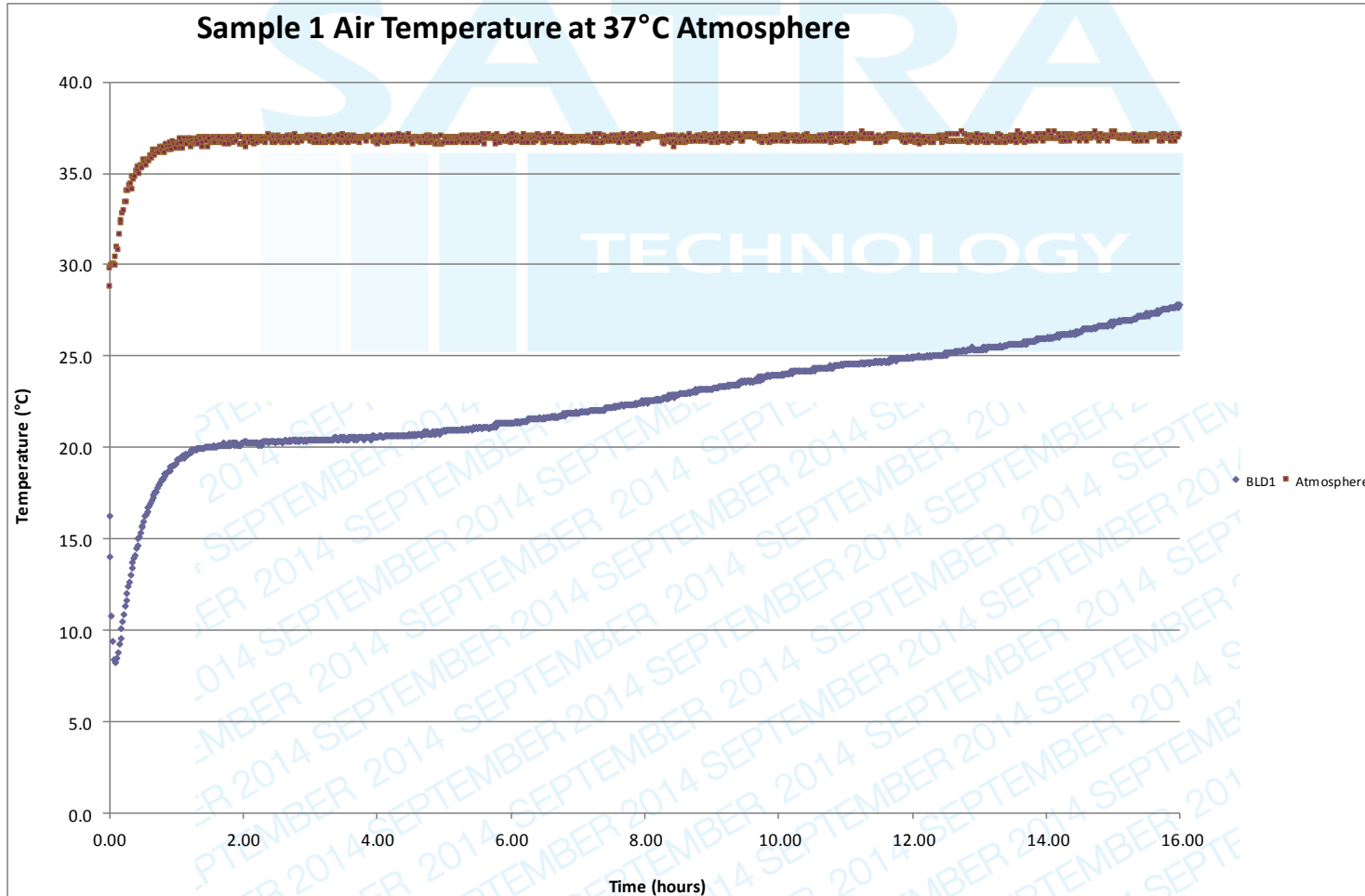
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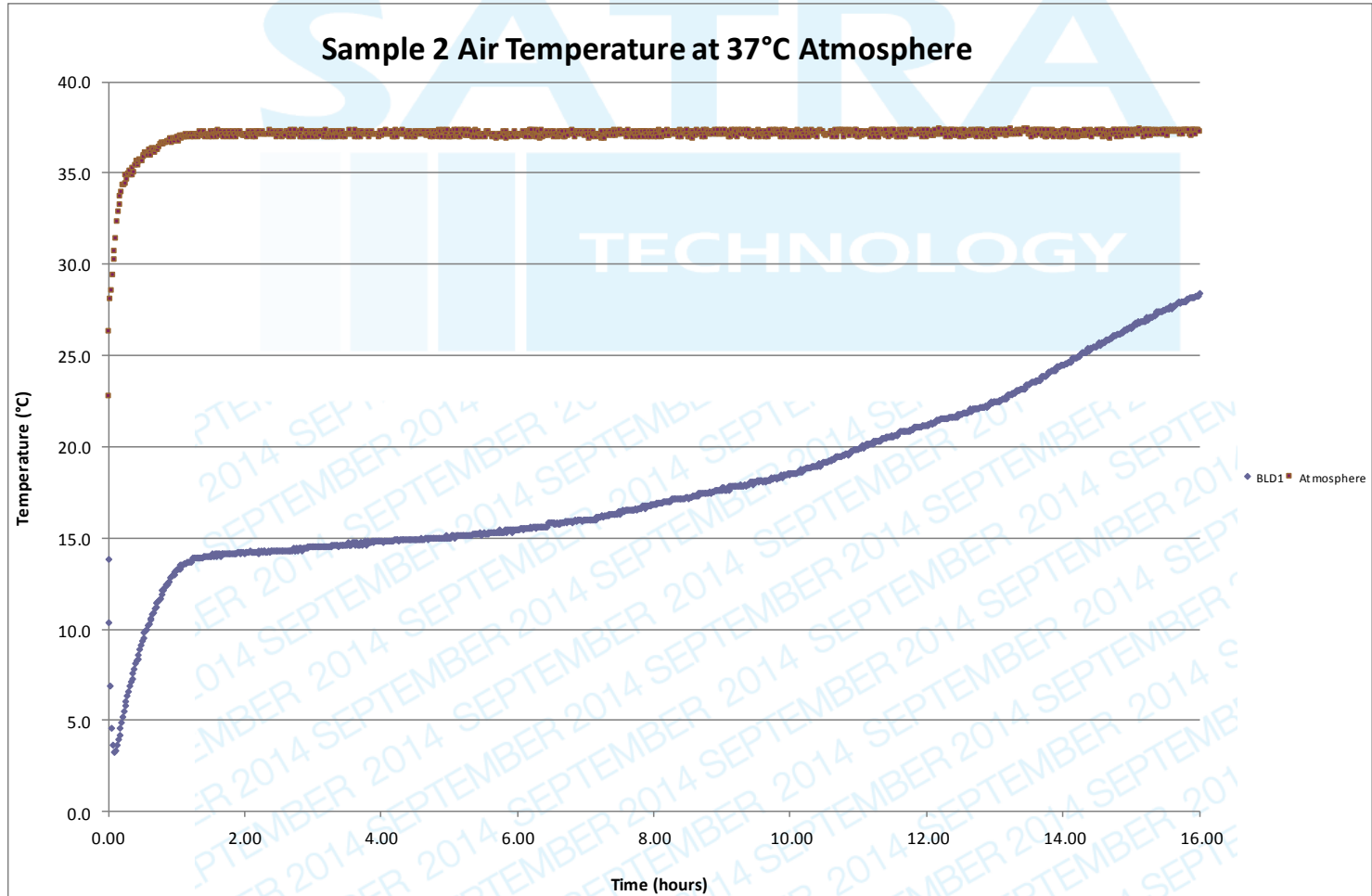
Test Results

Mean external temperature: 37°C

Sample 1	
Elapsed Time (hours)	Temperature of internal air (°C)
Initial temperature	16.2
1	19.1
2	20.2
3	20.4
4	20.5
5	20.9
6	21.3
7	21.8
8	22.5
9	23.2
10	24.0
11	24.6
12	24.9
13	25.4
14	26.0
15	26.9
16	27.8

Sample 2	
Elapsed Time (hours)	Temperature of internal air (°C)
Initial temperature	13.8
1	13.2
2	14.1
3	14.5
4	14.8
5	15.0
6	15.4
7	16.0
8	16.8
9	17.6
10	18.5
11	19.8
12	21.1
13	22.4
14	24.5
15	26.5
16	28.4

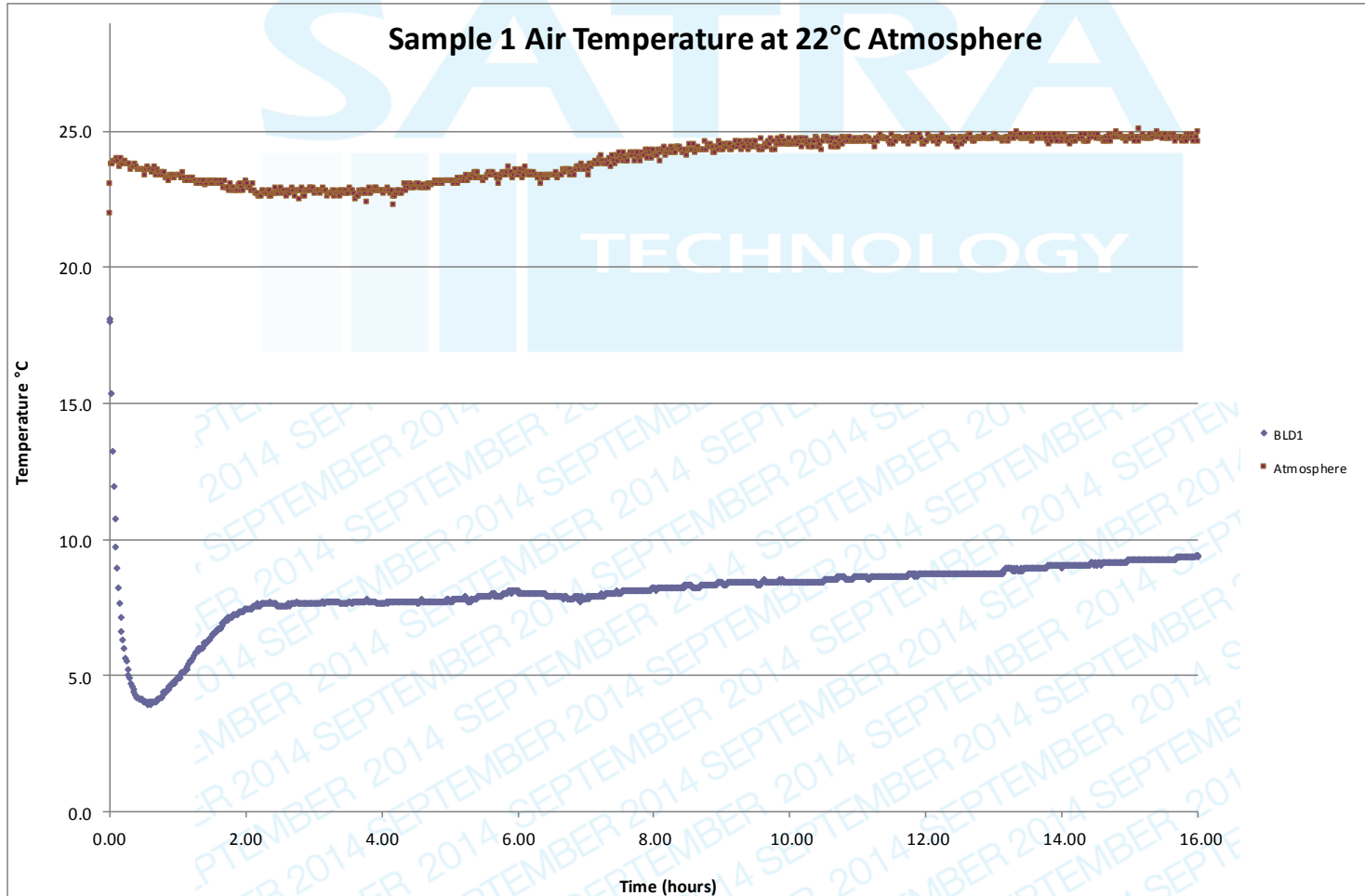


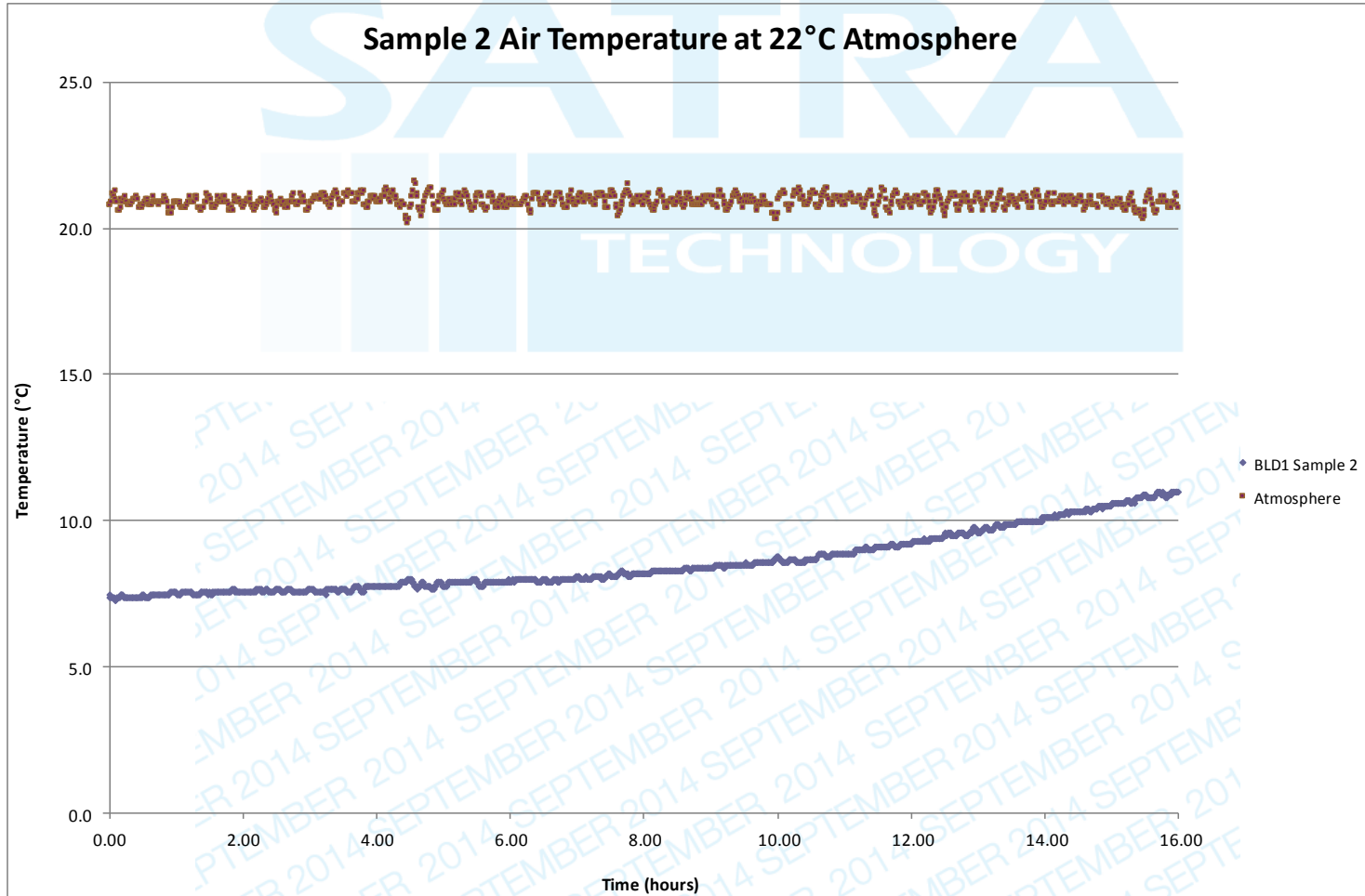


Mean external temperature: 22°C

Sample 1	
Elapsed Time (hours)	Temperature of internal air (°C)
Initial temperature	17.8
1	4.1
2	6.1
3	6.3
4	6.4
5	6.6
6	7.0
7	6.6
8	7.1
9	7.3
10	7.4
11	7.6
12	7.9
13	7.9
14	8.3
15	9.0
16	9.5

Sample 2	
Elapsed Time (hours)	Temperature of internal air (°C)
Initial temperature	7.5
1	7.6
2	7.6
3	7.7
4	7.8
5	7.8
6	7.9
7	8.1
8	8.2
9	8.4
10	8.8
11	8.9
12	9.2
13	9.6
14	10.1
15	10.6
16	11.0

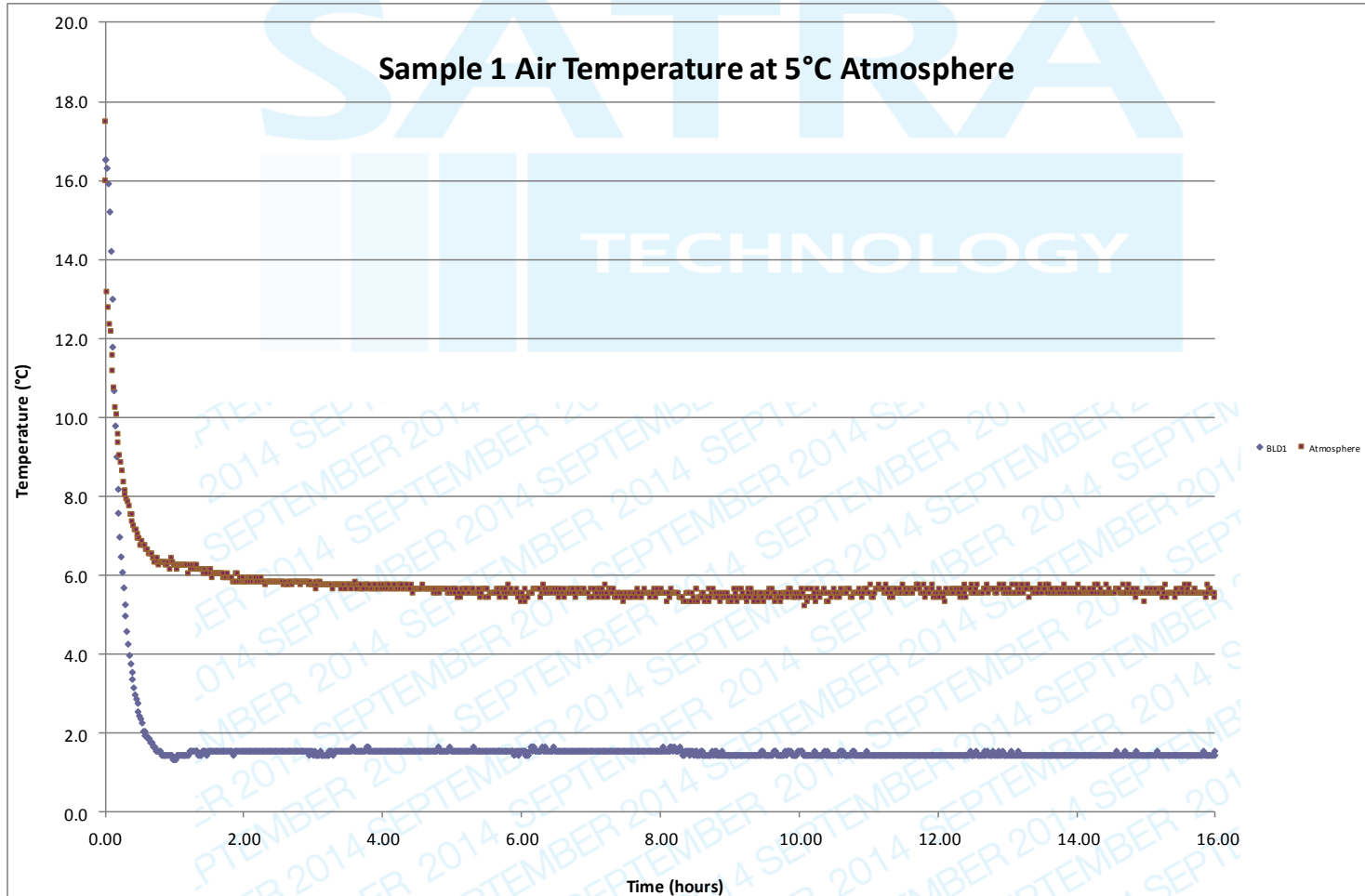


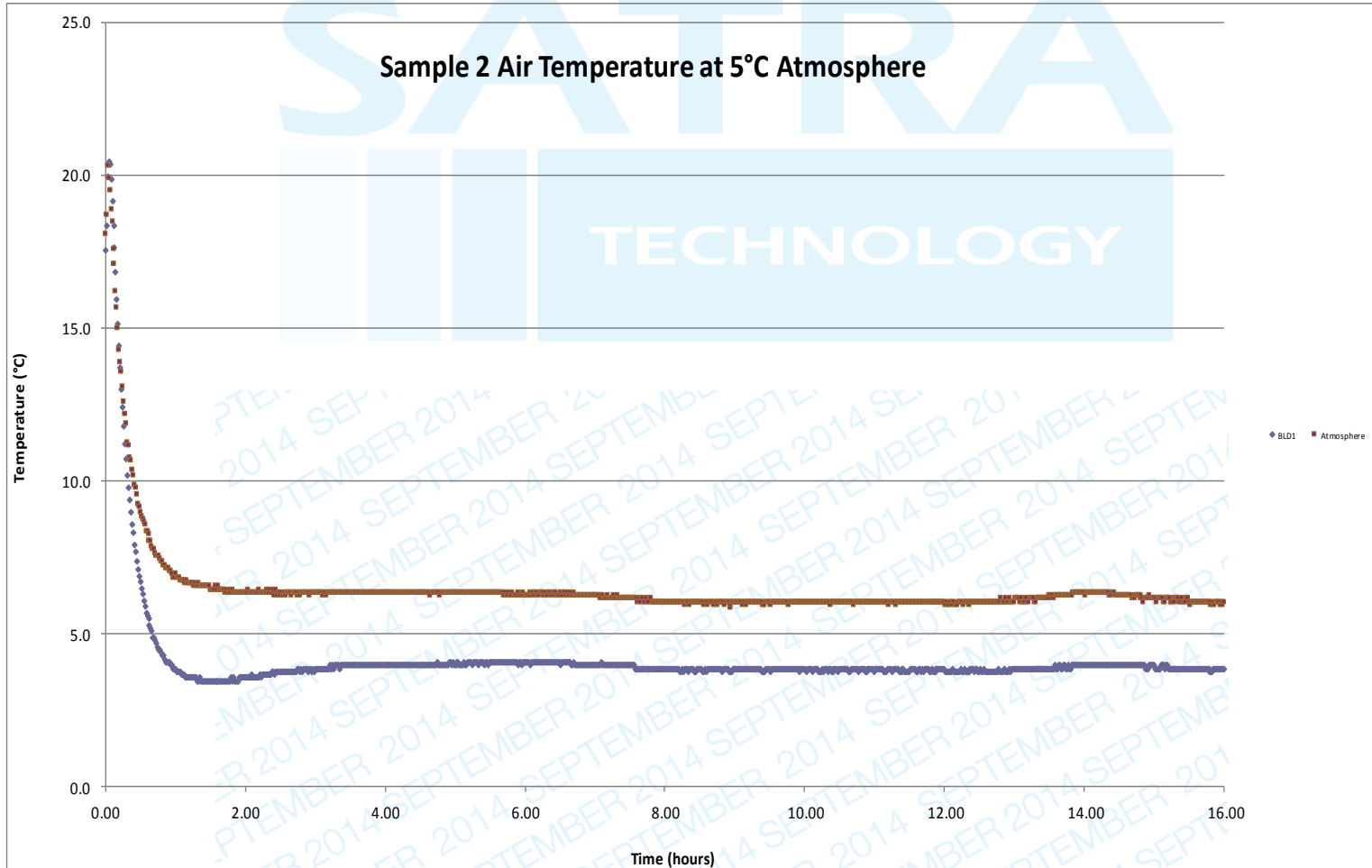


Mean external temperature: 5°C

Sample 1	
Elapsed Time (hours)	Temperature of internal air (°C)
Initial temperature	16.5
1	1.3
2	1.5
3	1.4
4	1.5
5	1.5
6	1.5
7	1.5
8	1.5
9	1.4
10	1.5
11	1.4
12	1.4
13	1.4
14	1.4
15	1.4
16	1.5

Sample 2	
Elapsed Time (hours)	Temperature of internal air (°C)
Initial temperature	17.5
1	3.9
2	3.6
3	3.9
4	4.0
5	4.0
6	4.0
7	4.1
8	4.0
9	3.9
10	3.9
11	3.9
12	3.8
13	3.9
14	3.9
15	4.0
16	4.0





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 - ii. Where SATRA has given consent to disclosure, the Customer shall draw the attention of the third party to these terms of business and the basis on which SATRA undertakes test, reporting and advising. The Customer shall indemnify SATRA for any failure to do so.
 - iii. The above items are submitted to the Customer as confidential documents. Confidentiality shall continue to apply after completion of the business, but shall cease to apply to information or knowledge which may come into the public domain.
13. **CONSTRUCTION AND ARBITRATION**
The laws of England shall govern all contracts and the parties submit to exclusive jurisdiction of the courts of England, unless otherwise agreed.

Issue Date: 1st October 2009