



### PERIODIC TEST REPORT

Report No	CEN1407/03	Page 1 of 4
Unique Product Ref/ System Description File No.	59183	
Client Address	Diamond Glass (Medway) Ltd Units 15 & 16 Revenge Road Chatham Kent ME5 8UD	
Date Received	21.05.2014	
Units	Seven off insulating glass units	
Component Summary	Primary Sealant: Kommerling International Ltd Secondary Sealant: Bostik Ltd Desiccant: Ashton Industrial Spacer bar: Profilglass S.p.A Corner Keys: Thermoseal Group Ltd Lead Tape: Regalead Ltd Georgian bar: Profilglass S.p.A Coloured adhesive film: Regalead Ltd	
Date of manufacture	25.04.2014	
Specification	BS EN 1279 Part 6:2002 Annex B Periodic Test & Inspection BS EN 1279 Part 6:2002 Annex C Fogging Test	
Result	<b>PASS</b>	
Prepared by	L R Bellerby <i>LR Bellerby</i>	(Laboratory Director)
Approved by	H D Wright <i>H.D. Wright</i>	(Office Manager)
Issue Date	22.07.2014	
Conditions of Issue	This test report is issued subject to the terms and conditions stated in the CENSolutions Ltd General Conditions relating to acceptance of testing. The results given relate only to the particular samples tested and to the specific tests carried out, as detailed in this test report. The issuing of this test report does not indicate any measure of Approval, Certification, Supervision, Control or Surveillance by CENSolutions Ltd of any product. This Test Report, if disclosed to third parties, should be disclosed in its entirety. On receipt, we recommend that the results be discussed with personnel experienced in the manufacture and testing of insulating glass units to EN 1279 Parts 2 & 6. Your CENSolutions Ltd consultant can advise accordingly.	

#### CENSolutions Limited

Reg. Office Unit 3 Penkridge Industrial Estate, Boscomoor Lane, Penkridge, Staffordshire ST19 5NZ

Tel 01785 716625 Fax 01785 714625

Email [info@censolutions.com](mailto:info@censolutions.com) Web site [www.censolutions.com](http://www.censolutions.com)

Directors MG Gaillard WR Rogerson

Co. Reg. No. 4931820



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### TEST AND EXAMINATION OF INSULATING GLASS UNITS FOR PERIODIC ASSESSMENT TO BS EN 1279-6 Annex B and Annex C

#### INTRODUCTION

Insulating glass units manufactured by **Diamond Glass (Medway) Ltd** were selected from the production batch as specified in BS EN 1279 Part 6 Annex B with a test size and cavity width as close to the standard test size as possible. They were tested and assessed to the applicable requirements of Annex B and where UV fogging test was required to BS EN 1279 Part 6 Annex C.

The test items were received on **21.05.2014** and identified as **59183**

#### TEST ITEMS

Five off insulating glass units were selected from the production batch and submitted for test to BS EN 1279 Part 6 Annex B. In addition two units 4.12.4 or similar and of size 502 x 352mm were manufactured using standard accepted designs and tested to BS EN 1279 Part 6 Annex C.

#### TEST PROCEDURE

##### BS EN 1279 Part 6:2002 Annex B Periodic testing and inspection

##### Conditioning and dimensional measurement

The insulating glass units were received at CENSolutions Ltd and stored in standard laboratory conditions of  $23 \pm 2^{\circ}\text{C}$  and  $50 \pm 5\%$  relative humidity for a period of not less than fourteen days. During this period the seal geometry was inspected and recorded. The relative units were then subjected to the short climatic test.

##### Initial moisture content

The initial moisture content is established by using the method described in BS EN 1279 Part 2 Annex B. The desiccant from units 2 and 4 was removed using the second alternative recommended procedure for removing desiccant as described in Annex B.3.1.b)

##### Climatic test

Units 1 and 5 were placed in the climatic test chamber and subjected to three weeks exposure at a temperature of  $+58^{\circ}\text{C}$  and a relative humidity of 95% or greater. Following the end of the climatic test the units were conditioned for a further fourteen days at standard laboratory conditions.

##### Final moisture content

The final moisture content is established by using the method described in BS EN 1279 Part 2 Annex B. The desiccant from units 1 and 5 was removed using the second alternative recommended procedure for removing desiccant as described in Annex B.3.1.b)

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### RESULTS

Unit No	Initial moisture content	Final moisture content	Moisture Penetration Index
1	n/a	6.241%	0.65%
2	6.032%	n/a	n/a
3	n/a	n/a	n/a
4	6.271%	n/a	n/a
5	n/a	6.496%	2.49%

### BS EN 1279 Part 6:2002 Annex C Fogging Test

Two off sample units of a standard design were mounted in an ultraviolet test box manufactured in accordance with Figure C.2 of BS EN 1279 Part 6 Annex C and having an output of 40W/m<sup>2</sup>. The air temperature within the test box was maintained within the range of 55 ± 5°C and a cooling plate was placed on the geometric centre of each unit. The plates were maintained at a temperature of 27 ± 5°C. After a test period of 168 ± 4 hours the samples were removed from the climatic test chamber. The samples were examined at eye level in a viewing box from a distance of one metre for signs of contamination and fogging on the interior glass surface. If condensation was seen in the viewing box, the units were stored between 15 °C and 25 °C for seven days and re-examined in the viewing box at a distance of one metre.

### COMPONENTS

The components used in the construction of the units were declared by the manufacturer to be as follows:

COMPONENT	TYPE	MANUFACTURER/SUPPLIER	GRADE
DESICCANT	3A Molecular sieve	Ashton Industrial Services	Supasiv mini
SPACER BAR	Aluminium anodised	Profilglass S.p.A	None
PRIMARY SEALANT	Polyisobutylene	Kommerling International Ltd	GD115
SECONDARY SEALANT	Butyl hot melt	Bostik Ltd	Bostik P5125
CORNER KEYS	Nylon	Thermoseal Group Ltd	
LEAD TAPE	None	Regalead Ltd	Regafast
GEORGIAN BAR	Powder coated aluminium	Profilglass S.p.A	Elisabeth
COLOURED FILM	Polyester	Regalead Ltd	Regafilm
CAVITY GAS	Air	N/A	N/A
DATE OF MANUFACTURE	25.04.2014		

*Any items highlighted in bold are replacements to the original System Description and evidence is available to show they can be replaced using the substitution rule as detailed in BS EN 1279 Part 1.*

### SUMMARY OF RESULTS

The insulating glass units described above exhibited the following characteristics:

CHARACTERISTIC	CAVITY	SIZE	M.P.I.	SPECIFIED	RESULT
MOISTURE PEN. INDEX Sample 1	19.5mm	352 x 502mm	<b>0.65%</b>	8.5%	Pass
MOISTURE PEN. INDEX Sample 5	19.5mm	352 x 502mm	<b>2.49%</b>	8.5%	Pass
UV FOGGING TEST	11.5mm	352 x 502mm	No fogging or contamination		Pass
AVERAGE HOT SPOT TEMP	55°C	AVERAGE COLD SPOT TEMP	27°C	TIME UNDER TEST	168 hours

*In the determination of the moisture penetration index a standard moisture adsorption capacity of 20.0% has been used*

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Directors MG Gaillard WR Rogerson

Co. Reg. No. 4931820



## PERIODIC TEST REPORT

Summary of report no: CEN1407/03

Date: 22.07.2014

### Insulating glass units – Periodic test according to EN 1279-6

For details, see the test report

Company Name: Diamond Glass (Medway) Ltd  
Address: Units 15 & 16  
Revenge Road  
Chatham  
Kent  
ME5 8UD

Plant: Name: As above  
Address:

System description file number: **59183**

Product name: Insulating glass units with Kommerling International Ltd primary seal,  
Bostik Ltd secondary seal and Ashton Industrial desiccant.

Samples conform to the periodic testing and inspection requirements:

**YES**

*NOTE: Comparisons of moisture penetration indices of different insulating glass unit systems are meaningless*

Signature:

Linn Bellerby

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