TEST REPORT

WE Geyser
Attention: Mr. E. Holder
P O Box 4060
Luipaardsvlei
1743

Your ref  : Customer No: 212573
Our ref   : 13S004 b
Enquiries : K.C.F. Delist
Tel no    : (012) 428-6193
Page      : 1 of 7
Date      : 2013-01-31

TESTING TO SANS 6211-1:2012

SUMMARY

A full specification test was performed on the (See sample description below) submitted. The system submitted passed. Refer clause 9 for a summary of the results of submitted system.

1 DESCRIPTION OF SAMPLE

The following (See sample description below) was submitted by Mr. E. Holder on behalf of the company WE Geyser.

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Quantity</th>
<th>Sample Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>13S004</td>
<td>1</td>
<td>Direct freeze resistant WE geyser with 300 litre WE storage tank and 2 x (2.2m²) black coated flat plate collector thermosiphon solar water heater system.</td>
</tr>
</tbody>
</table>

2 REPORT CONDITIONS

The contents of this test report refers to the sample/s detailed above and does not infer that the above samples (or any other similar samples) are SABS approved for quality and/or performance.

In the instance where this report is used to verify compliance with the JASWIC Acceptance Scheme or Eskom Rebate Scheme, the validity of the test reports shall not exceed a period of one (1) year.
3 ACCREDITATION DISCLAIMER

Test results marked with "Accredited" in this report are included in the SANAS accreditation schedule of this laboratory.

4 SAMPLE SUBMITTED

The (See clause 1 on page 1 for sample description), was received in good condition and suitable for testing.

- Date sample received: 2013-01-16
- Test start date: 2013-01-21
- Test completion date: 2013-01-29

5 TEST REQUESTED

To test the (See clause 1 on page 1 for sample description), submitted for testing with the full requirements of SANS 6211-1:2012.

6 METHODS OF TESTING

Methods used according to SANS 6211-1:2012.

7 CONDITIONING AND TEST ENVIRONMENT

Not applicable

8 LABORATORIES

All tests were performed by SABS laboratories.
5.3 OUTDOOR THERMAL PERFORMANCE TEST. (Accredited).

5.3.1 DAILY RESULTS.

When the advanced 6 day thermal performance of the sample was tested as described in the standard, the following data was collected for the various test days.

<table>
<thead>
<tr>
<th>Measured</th>
<th>Calculated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q</td>
<td>H</td>
</tr>
<tr>
<td>18.5</td>
<td>17.5</td>
</tr>
<tr>
<td>14</td>
<td>14.1</td>
</tr>
<tr>
<td>26</td>
<td>22.1</td>
</tr>
<tr>
<td>33.1</td>
<td>20.3</td>
</tr>
<tr>
<td>22.6</td>
<td>11.6</td>
</tr>
<tr>
<td>12</td>
<td>10.5</td>
</tr>
</tbody>
</table>

5.4 Energy output of the system. (Accredited).

The test data collected was used to perform a regression in order to determine the following formula that can be used to determine the amount of energy that the system will collect depending on the atmospheric conditions of the day:

\[ Q = \alpha_1 H + \alpha_2 (T_a - T_c) + \alpha_3 \]

<table>
<thead>
<tr>
<th>Values</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \alpha_3 )</td>
<td>4.7 unit less</td>
<td>Intercept Value</td>
</tr>
<tr>
<td>( \alpha_1 )</td>
<td>1.1 unit less</td>
<td>Irradiance Coefficient</td>
</tr>
<tr>
<td>( \alpha_2 )</td>
<td>0.5 unit less</td>
<td>Temperature Coefficient</td>
</tr>
</tbody>
</table>

This test was performed by SABS Commercial (SOC) Ltd.
This report relates only to the specific sample(s) tested as identified herein. It does not imply SABS approval of the quality and/or performance of the item(s) in question and the test results do not apply to any similar item that has not been tested. (Refer also to the complete conditions printed on the back of official test reports.)