# Test Report

**Report No:** EP002638

**Client:** Fibrelite Composites Ltd  
Snaygill Industrial Estate  
Keighley Road  
Skipton  
North Yorkshire  
BD23 2QR

**Authority & date:** BSI Invoice No JIO20449 dated 3 November 1994

**Items tested:** 6 off Composite Manhole Tops

**Specifications:** Tested against requirements of BS EN 124:1994  
Clause 8 - Load Tests only

**Results:** See Summary of Results on Page 2

**Prepared by:**  
**Authorized by:** C J Morris

**Issue date:** 22 November 1994

**Conditions of issue:**  
This Test Report is issued subject to the conditions stated in the current issue of Test Leaflet 1 "General conditions relating to acceptance of testing". The results contained herein apply 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 BSI of any product. No extract, abridgement or abstraction from a Test Report may be published or used to advertise a product without the written consent of the Director, BSI Testing, who reserves the absolute right to agree or reject all or any of the details of any items of publicity for which consent may be sought.
TESTING, EXAMINATION AND ASSESSMENT OF MANHOLE TOPS

DEFINITION

Manhole top: That part of a manhole consisting of a frame and a cover.

INTRODUCTION

At the request of Fibrelite Composites Ltd the manhole tops detailed below, were tested and assessed using BS EN124:1994 - Clause 8 - as the basis for load testing, as indicated on the following pages of this Report. This request is as detailed in BSI Invoice No J1020449 dated 3 November 1994. It is emphasized that assessments have not been made against the other clauses of the Specification.

This Report only relates to the actual samples which have been tested and assessed. The results obtained do not necessarily relate to samples from the production line and in no way imply the performance or quality of the continuing production.

TEST ITEMS

Manhole top, Type FL42 - 1070mm diameter clear opening
Manhole top, Type FL36 - 900mm diameter clear opening
Manhole top, Type FL3 - 770 x 600mm clear opening
Manhole top, Type FL10 - 770 x 770mm clear opening
Manhole top, Type FL5 - 600 x 600mm clear opening
Manhole top, Type FL1 - 600 x 600mm clear opening

SUMMARY OF RESULTS

The test samples met the requirements of clause 8 of BS EN124:1994, or parts thereof, against which assessments were made.
BS EN124:1994

EXAMINATION AND TEST

<table>
<thead>
<tr>
<th>Clause No</th>
<th>Component Description: Manhole top, Type FL42</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.</td>
<td>Testing</td>
<td></td>
</tr>
<tr>
<td>8.3.1</td>
<td>Measurement of permanent set of the cover or grating after the application of 2/3 of the test load (Load applied 167 kN)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Specified: 10.7 max Actual: 0.762 Pass</td>
<td></td>
</tr>
<tr>
<td>8.3.2</td>
<td>Application of the test load</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The unit was capable of withstanding a test load of 250 kN without cracking Pass</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Clause No</th>
<th>Component Description: Manhole top, Type FL36</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.</td>
<td>Testing</td>
<td></td>
</tr>
<tr>
<td>8.3.1</td>
<td>Measurement of permanent set of the cover or grating after the application of 2/3 of the test load (Load applied 167 kN)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Specified: 9.0 max Actual: 0.457 Pass</td>
<td></td>
</tr>
<tr>
<td>8.3.2</td>
<td>Application of the test load</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The unit was capable of withstanding a test load of 250 kN without cracking</td>
<td></td>
</tr>
</tbody>
</table>
### Component Description: Manhole top, Type FL3

8. **Testing**

#### 8.3.1 Measurement of permanent set of the cover or grating after the application of 2/3 of the test load

<table>
<thead>
<tr>
<th>Specified (mm)</th>
<th>Actual (mm)</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.0 max</td>
<td>0.508</td>
<td>Pass</td>
</tr>
</tbody>
</table>

#### 8.3.2 Application of the test load

- The unit was capable of withstanding a test load of 250 kN without cracking

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### Component Description: Manhole top, Type FL10

8. **Testing**

#### 8.3.1 Measurement of permanent set of the cover or grating after the application of 2/3 of the test load

<table>
<thead>
<tr>
<th>Specified (mm)</th>
<th>Actual (mm)</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.7 max</td>
<td>0.254</td>
<td>Pass</td>
</tr>
</tbody>
</table>

#### 8.3.2 Application of the test load

- The unit was capable of withstanding a test load of 250 kN without cracking

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BS EN124:1994

EXAMINATION AND TEST (continued)

Clause No

Component Description: Manhole top, Type FL5

8.

Testing

8.3.1 Measurement of permanent set of the cover or grating after the application of 2/3 of the test load

(Load applied 167 kN)

<table>
<thead>
<tr>
<th>Specified</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permanent set (mm)</td>
<td>6.0 max</td>
</tr>
</tbody>
</table>

Pass

8.3.2 Application of the test load

The unit was capable of withstanding a test load of 250 kN without cracking

Pass

Component Description: Manhole top, Type FL1.

8.

Testing

8.3.1 Measurement of permanent set of the cover or grating after the application of 2/3 of the test load

(Load applied 167 kN)

<table>
<thead>
<tr>
<th>Specified</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permanent set (mm)</td>
<td>6.0 max</td>
</tr>
</tbody>
</table>

Pass

8.3.2 Application of the test load

The unit was capable of withstanding a test load of 250 kN without cracking

Pass