



Report No	2371/8499660	This Report consists of 4 pages	
Client	Marsh Industries Ltd Units 1-3 Addington Business Park Irthlingborough Road Little Addington NN14 4AS		
Authority & date	BSI Quotation Acceptance Form Nos: BSI 0000753687 Dated 04 March 2016 Sample ID: 10162042		
Items tested	GRP Manhole Tops		
Specification	BS EN 124:1994 Clauses 8.3.1 and 8.3.2 Direct Commission Test		
Results	See Summary of Results on Page 2		
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Issue Date	14 April 2016		
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## **TESTING, EXAMINATION AND ASSESSMENT OF GRP MANHOLE TOPS SUBMITTED AS DIRECT COMMISSION TEST SAMPLES**

### **INTRODUCTION**

At the request of Marsh Industries Ltd the GRP manhole tops, detailed below and received on 02 March 2016, were tested and assessed against the requirements of BS EN 124:1994 Clauses 8.3.1 and 8.3.2 as indicated on the following pages of this Report. This request was made in a BSI Quotation Acceptance Form Number BSI 0000753687 dated 04 March 2016.

It is emphasised that assessments were not 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 that the performance or quality of the continuing production will be maintained.

The tests and assessments contained in this Report were undertaken at BSI VIPP Laboratory on 04<sup>th</sup> April 2016.

### **TEST ITEMS**

<b>Test item No.</b>	<b>Class</b>	<b>Code</b>	<b>Description</b>	<b>Nominal clear opening (mm)</b>	<b>Nominal frame depth (mm)</b>
1	-	Light Duty	GRP manhole top	660 x 640	-
2	-	Heavy Duty	GRP manhole top	660 x 640	-

One sample of each test item was submitted for testing. Covers were submitted without frames.

### **SUMMARY OF RESULTS**

The test items assessed met the requirements or parts thereof, of the Specification against which assessments were made.

**BS EN 124:1994****TEST ITEM NO: 1**

**COMPONENT DESCRIPTION:** Code: Light Duty  
GRP manhole top (rectangular cover, no frame)

**EXAMINATION AND TEST****CLAUSE****ASSESSMENT****8. TESTING****8.3 Testing procedure**

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

Material of intermediate layer used: Rubber Pad

	<b>Specified</b>	<b>Actual</b>	
Permanent set (mm)	6.4 max	1.79	Pass

**For information**

	<b>Specified</b>	<b>Actual</b>	
Clear opening (mm)	-	660 x 640	Not assessed

**8.3.2 Application of the test load**

The unit was capable of withstanding a test load of 5kN for 30 seconds without cracking.

Pass

**BS EN 124:1994****TEST ITEM NO: 2**

**COMPONENT DESCRIPTION:** Code: Heavy Duty  
GRP manhole top (rectangular cover, no frame)

**EXAMINATION AND TEST**

<b>CLAUSE</b>				<b>ASSESSMENT</b>
<b>8.</b>	<b>TESTING</b>			
<b>8.3</b>	<b>Testing procedure</b>			
<b>8.3.1</b>	<b>Measurement of permanent set of the cover or grating after the application of 2/3 of the test load (10kN)</b>			
	Material of intermediate layer used: Rubber Pad			
	Permanent set (mm)	<b>Specified</b> 6.4 max	<b>Actual</b> 2.9	Pass
	<b>For information</b>			
	Clear opening (mm)	<b>Specified</b> -	<b>Actual</b> 660 x 640	Not assessed
<b>8.3.2</b>	<b>Application of the test load</b>			
	The unit was capable of withstanding a test load of 15kN for 30 seconds without cracking. <sup>(1)</sup>			Pass

<sup>(1)</sup> Upon inspection after the load test, cracks were evident on the underside of the manhole cover. However this did not affect the ability of the manhole cover to withstand the applied test load.